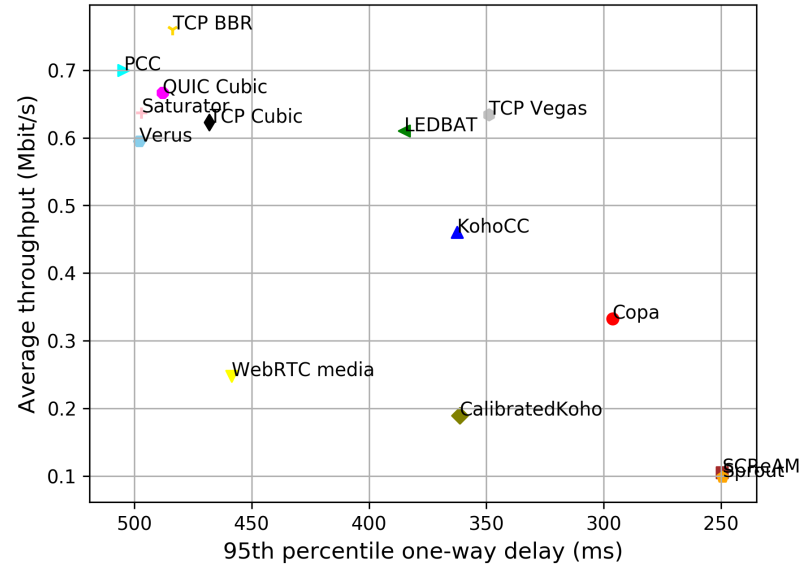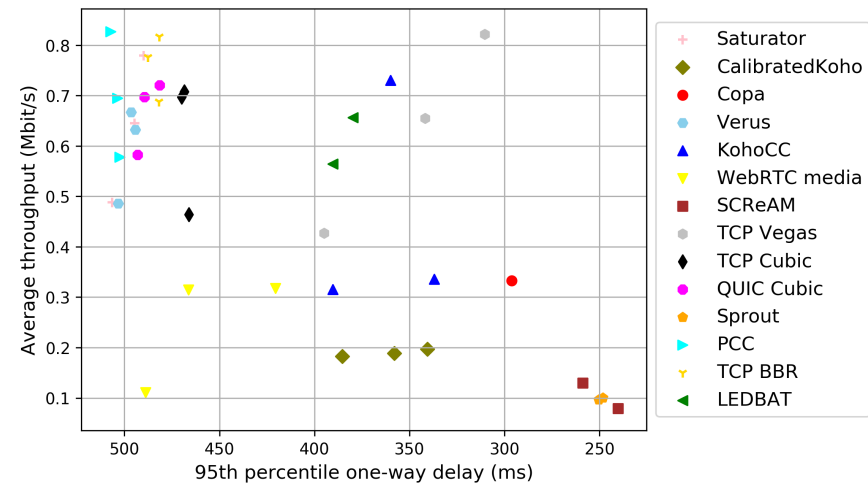**Pantheon Summary** (Generated at Mon, 07 Aug 2017 01:07:46 +0000 with pantheon version `a934ee3822380a12762347e6bc8bd1f3e836e73b`)

Repeated the test of 15 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

Data path: China ppp0 (*remote*) →AWS Korea Ethernet (*local*).

NTP offset measured against ntp.nict.jp 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 China ppp0 to AWS Korea Ethernet, 3 runs of 30s each per scheme
(mean of all runs by scheme)

test from China ppp0 to AWS Korea 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	0.76	483.69	13.11
CalibratedKoho	3	0.19	361.35	2.36
Copa	3	0.33	296.31	0.66
TCP Cubic	3	0.62	468.12	3.78
KohoCC	3	0.46	362.49	1.37
LEDBAT	3	0.61	385.02	1.67
PCC	3	0.70	504.50	91.92
QUIC Cubic	3	0.67	487.95	11.24
Saturator	3	0.64	496.96	50.33
SCReAM	3	0.11	249.53	1.54
Sprout	3	0.10	249.40	1.68
TaoVA-100x	3	nan	nan	nan
TCP Vegas	3	0.63	349.02	1.59
Verus	3	0.60	497.98	72.69
WebRTC media	3	0.25	458.55	10.40

```
Run 1: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:18:38 +0000
End at: Sun, 06 Aug 2017 23:19:08 +0000
Local clock offset: 0.232 ms
Remote clock offset: -0.402 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:20 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 481.804 ms
Loss rate: 9.41%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 481.804 ms
Loss rate: 9.41%
```
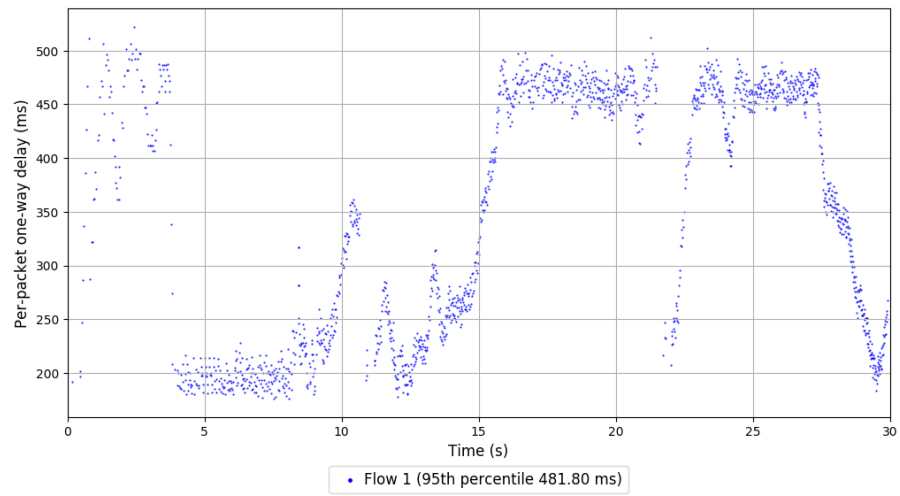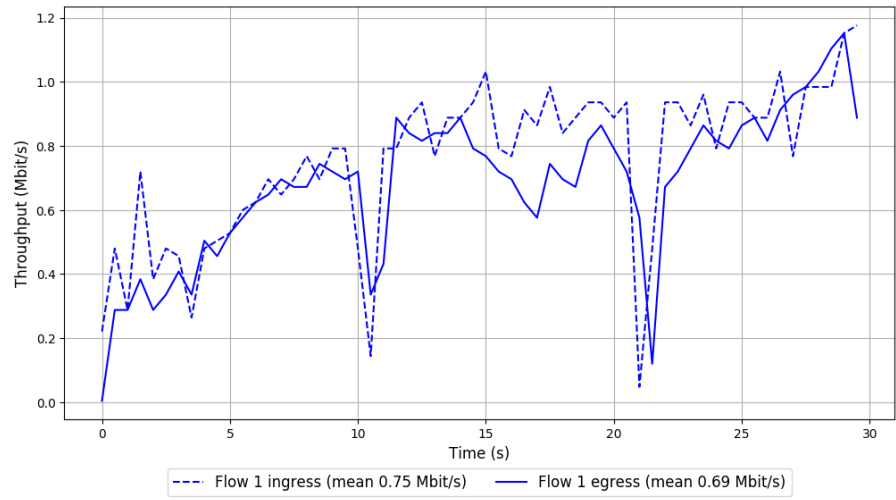
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:36:56 +0000
End at: Sun, 06 Aug 2017 23:37:26 +0000
Local clock offset: 0.581 ms
Remote clock offset: -0.118 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:20 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 487.660 ms
Loss rate: 13.39%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 487.660 ms
Loss rate: 13.39%
```
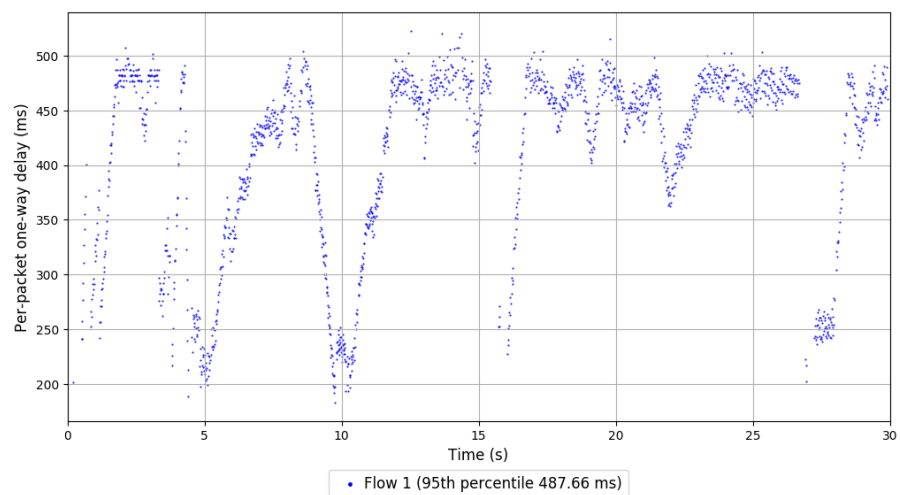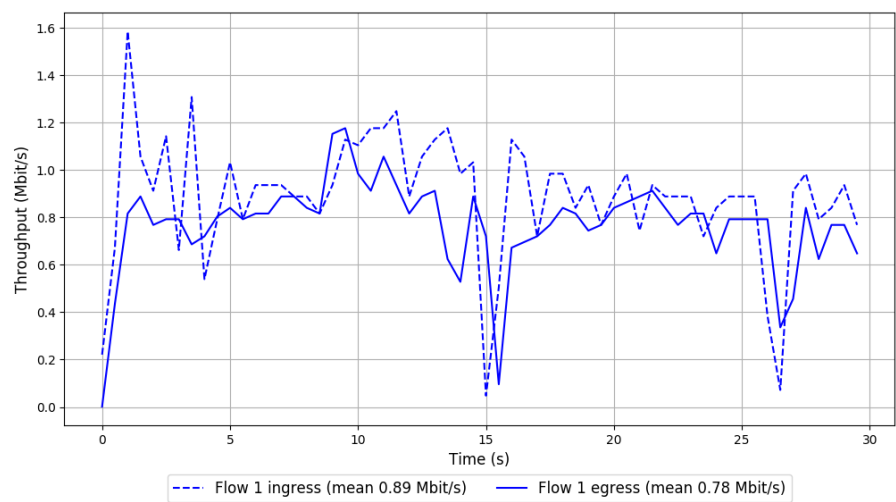
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:55:31 +0000
End at: Sun, 06 Aug 2017 23:56:01 +0000
Local clock offset: 0.143 ms
Remote clock offset: 0.061 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:21 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 481.598 ms
Loss rate: 16.54%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 481.598 ms
Loss rate: 16.54%
```
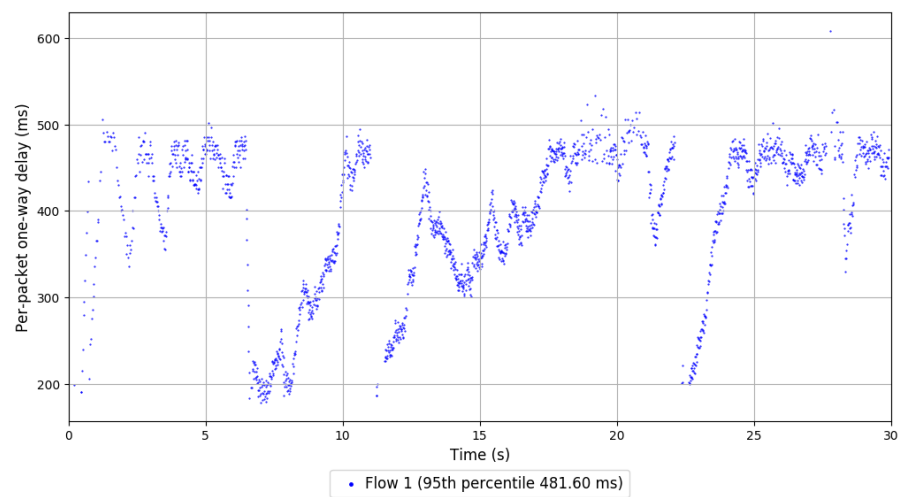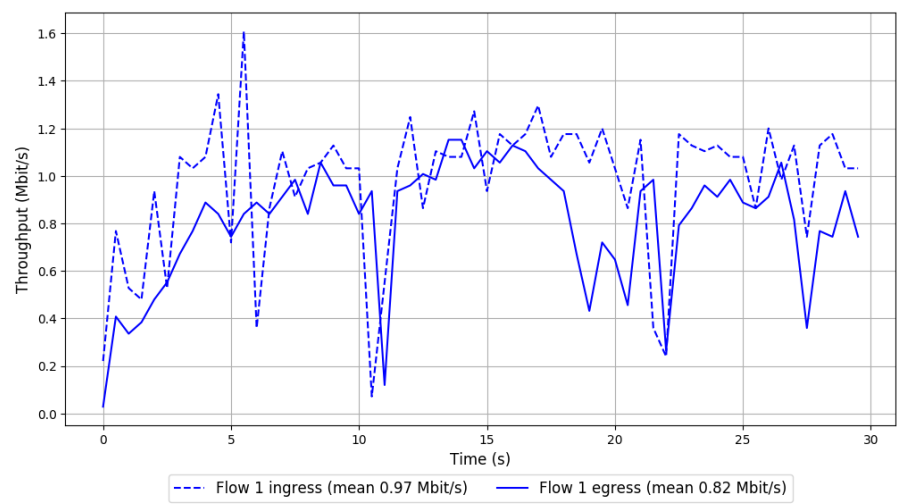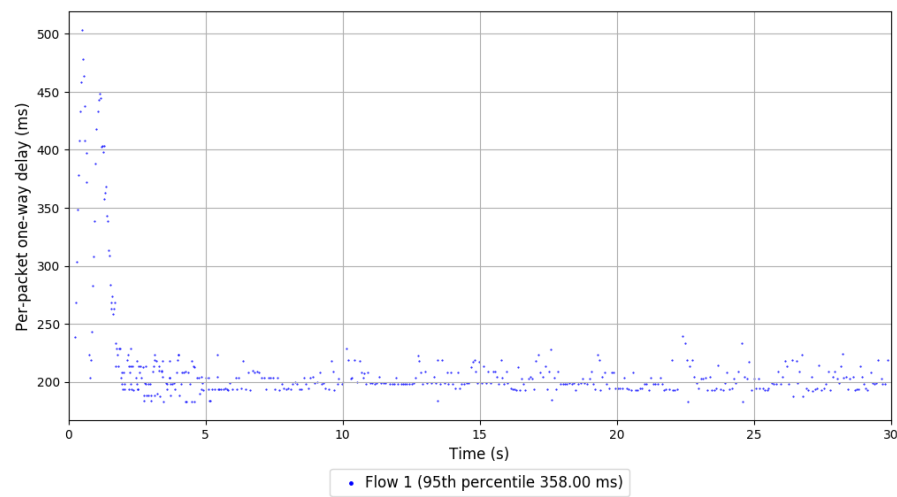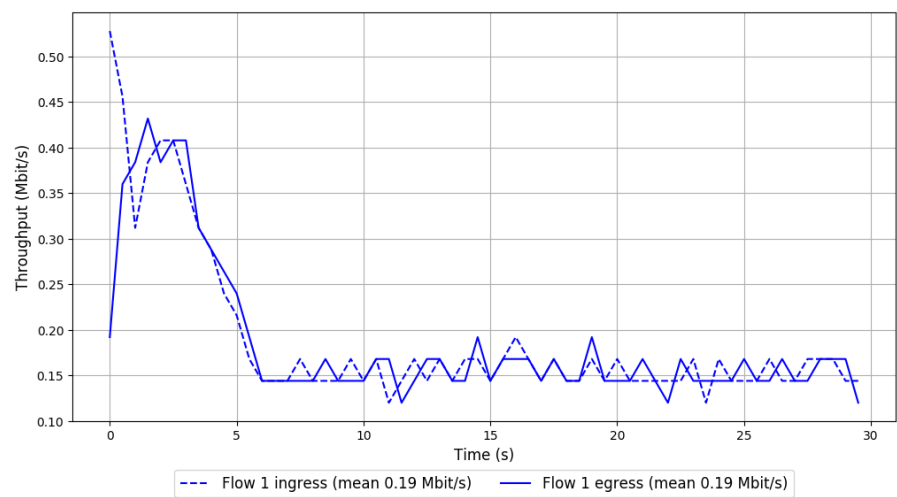
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 0.97 Mbit/s)   Flow 1 egress (mean 0.82 Mbit/s)

Flow 1 (95th percentile 481.60 ms)

```
Run 1: Statistics of CalibratedKoho

Start at: Sun, 06 Aug 2017 23:32:06 +0000
End at: Sun, 06 Aug 2017 23:32:36 +0000
Local clock offset: 0.14 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:21 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 357.996 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 357.996 ms
Loss rate: 2.10%
```
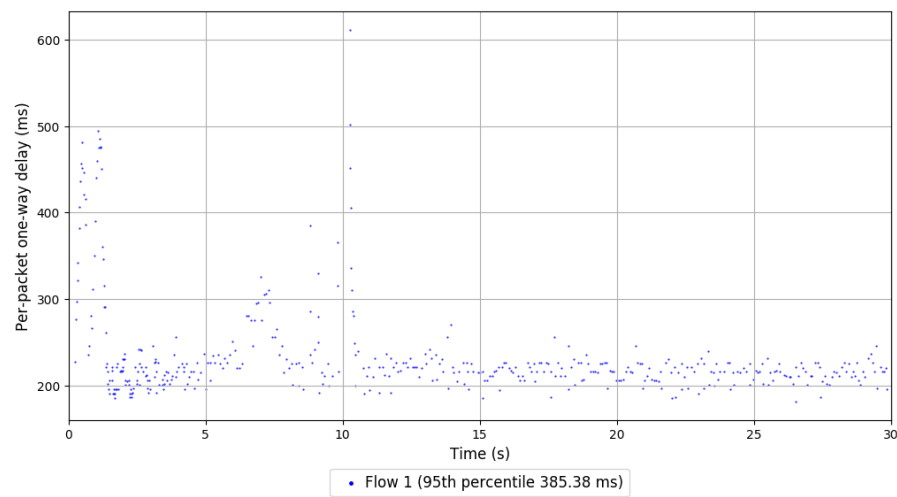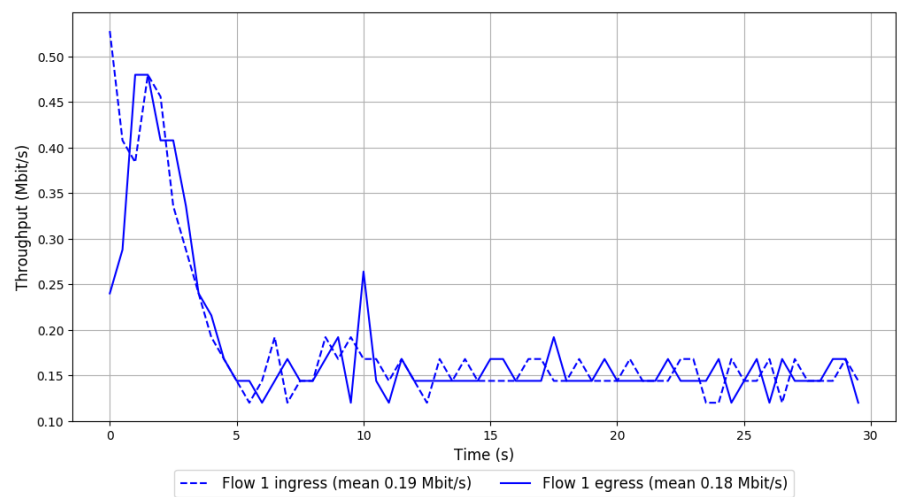
Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: Sun, 06 Aug 2017 23:50:42 +0000
End at: Sun, 06 Aug 2017 23:51:12 +0000
Local clock offset: 0.461 ms
Remote clock offset: 0.013 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:22 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 385.377 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 385.377 ms
Loss rate: 2.17%
```
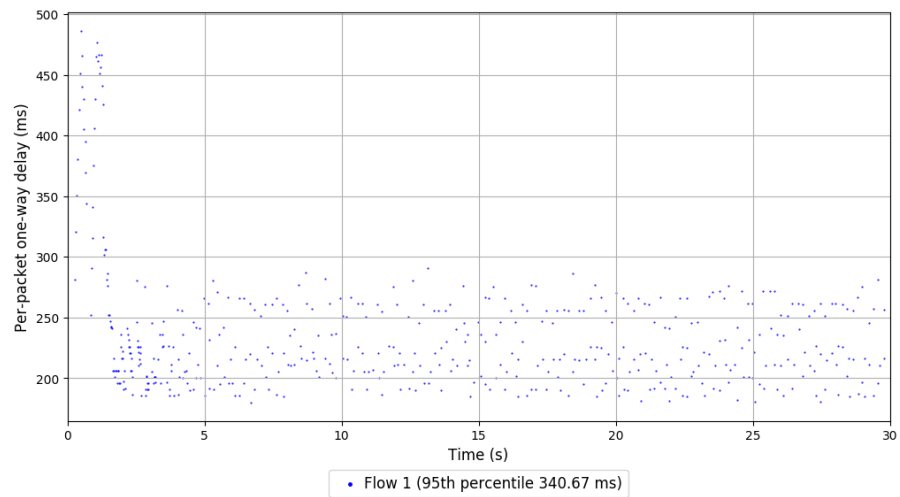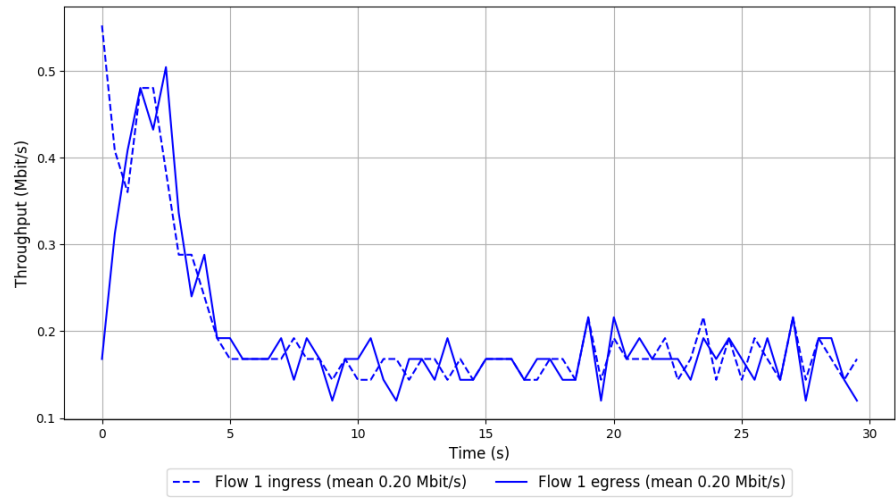
Run 2: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.19 Mbit/s)   Flow 1 egress (mean 0.18 Mbit/s)

• Flow 1 (95th percentile 385.38 ms)

```
Run 3: Statistics of CalibratedKoho

Start at: Mon, 07 Aug 2017 00:08:49 +0000
End at: Mon, 07 Aug 2017 00:09:19 +0000
Local clock offset: 0.448 ms
Remote clock offset: 0.128 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:22 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 340.669 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 340.669 ms
Loss rate: 2.81%
```

Run 3: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.20 Mbit/s) --- Flow 1 egress (mean 0.20 Mbit/s)

• Flow 1 (95th percentile 340.67 ms)

Run 1: Statistics of Copa

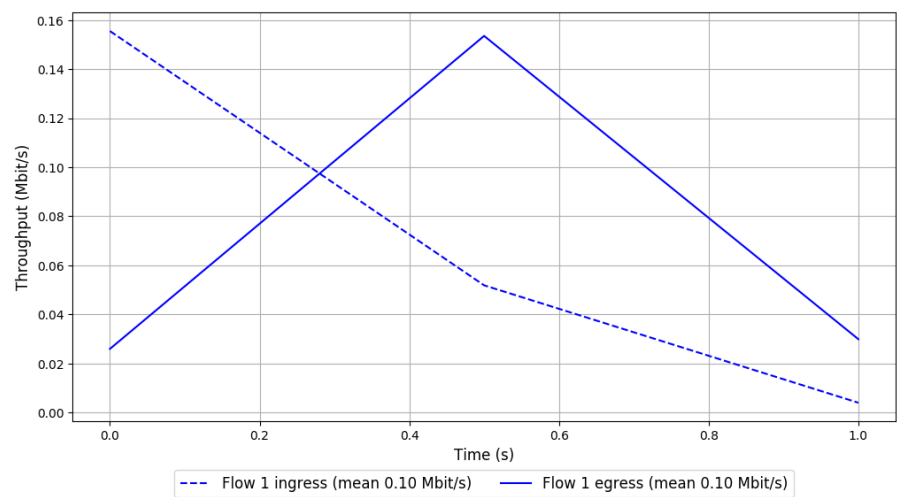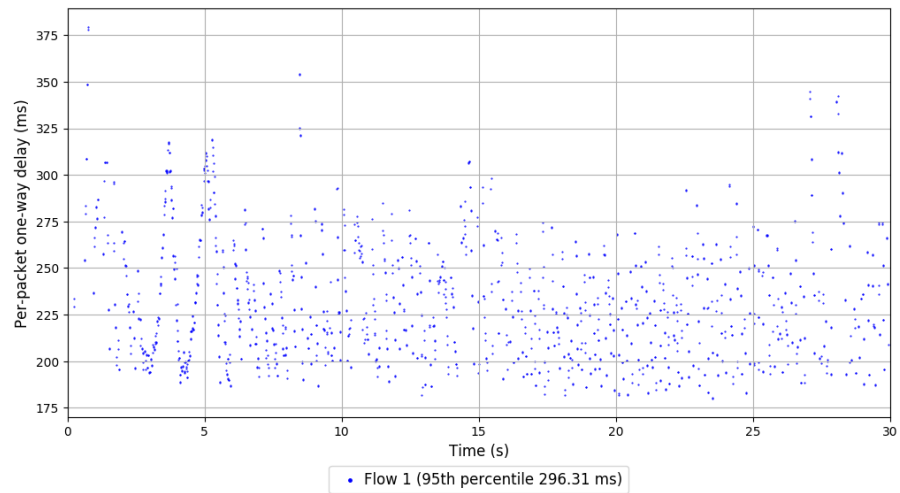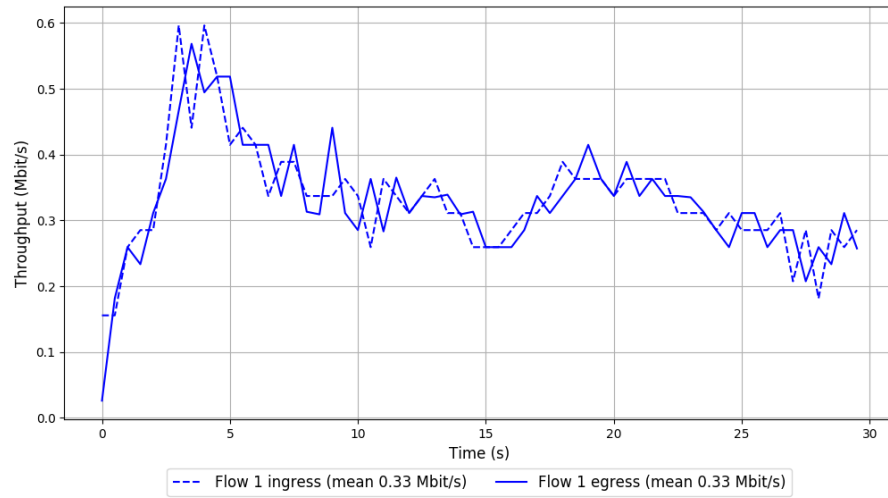Start at: Sun, 06 Aug 2017 23:17:21 +0000
End at: Sun, 06 Aug 2017 23:17:51 +0000
Local clock offset: 0.464 ms
Remote clock offset: -0.391 ms

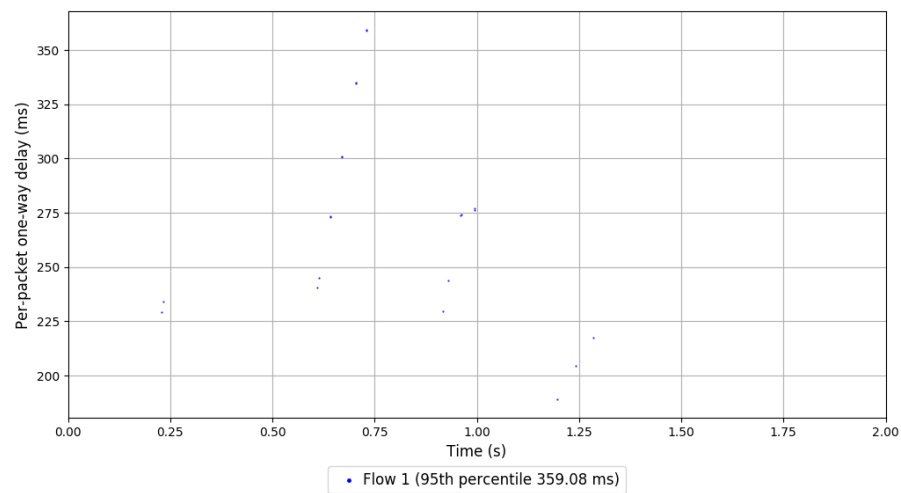Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:35:43 +0000
End at: Sun, 06 Aug 2017 23:36:13 +0000
Local clock offset: 0.164 ms
Remote clock offset: -0.166 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:23 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 296.305 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 296.305 ms
Loss rate: 0.66%
```

Run 2: Report of Copa — Data Link

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

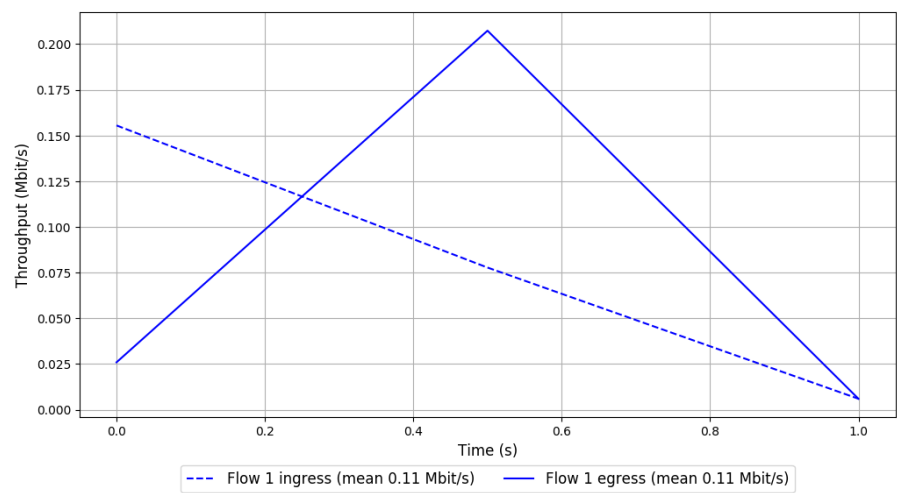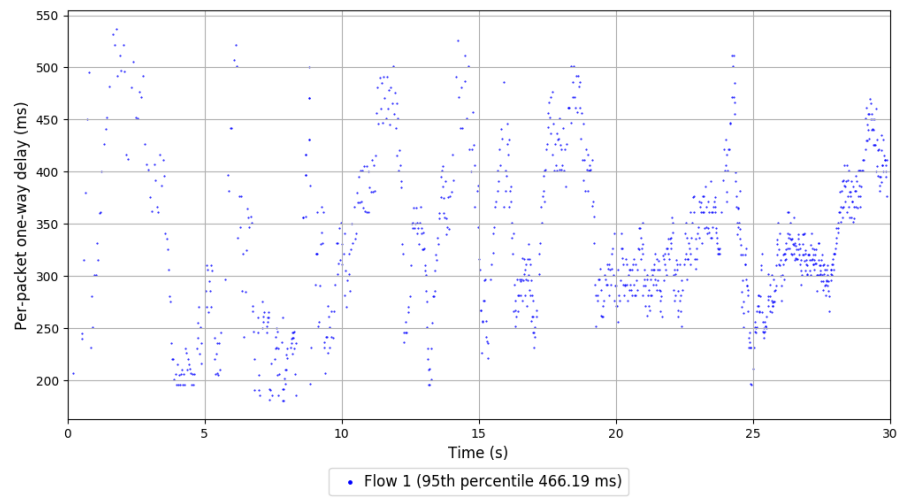Flow 1 (95th percentile 296.31 ms)

```
Run 3: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:54:19 +0000
End at: Sun, 06 Aug 2017 23:54:49 +0000
Local clock offset: 0.142 ms
Remote clock offset: 0.049 ms
```

Run 3: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:24:45 +0000
End at: Sun, 06 Aug 2017 23:25:15 +0000
Local clock offset: 0.205 ms
Remote clock offset: -0.247 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:25 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 466.186 ms
Loss rate: 4.49%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 466.186 ms
Loss rate: 4.49%
```
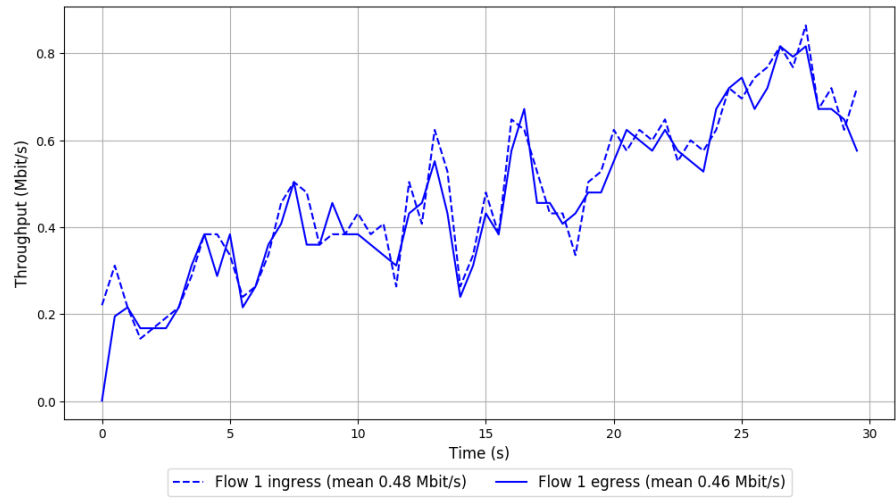
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:43:17 +0000
End at: Sun, 06 Aug 2017 23:43:47 +0000
Local clock offset: 0.143 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:25 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 469.792 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 469.792 ms
Loss rate: 3.90%
```
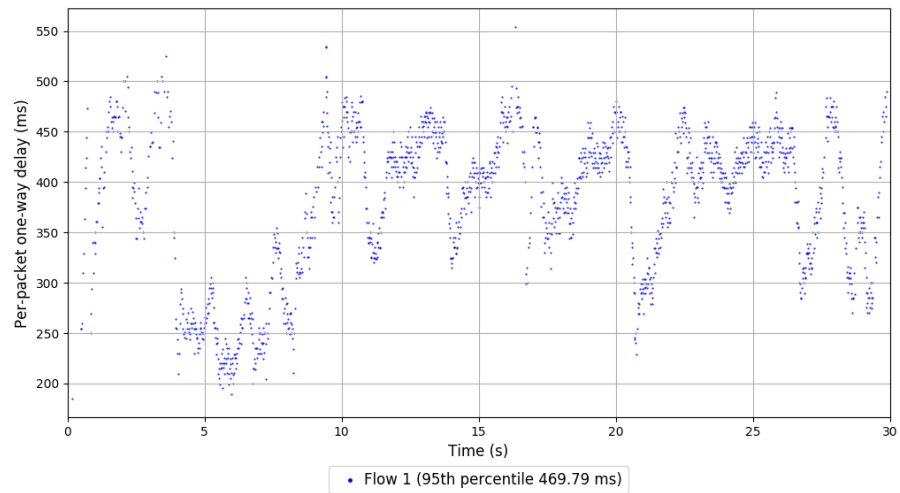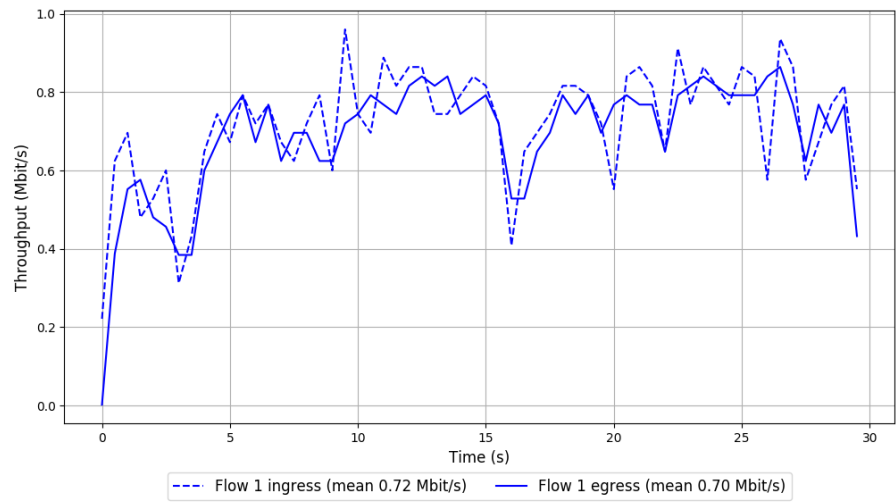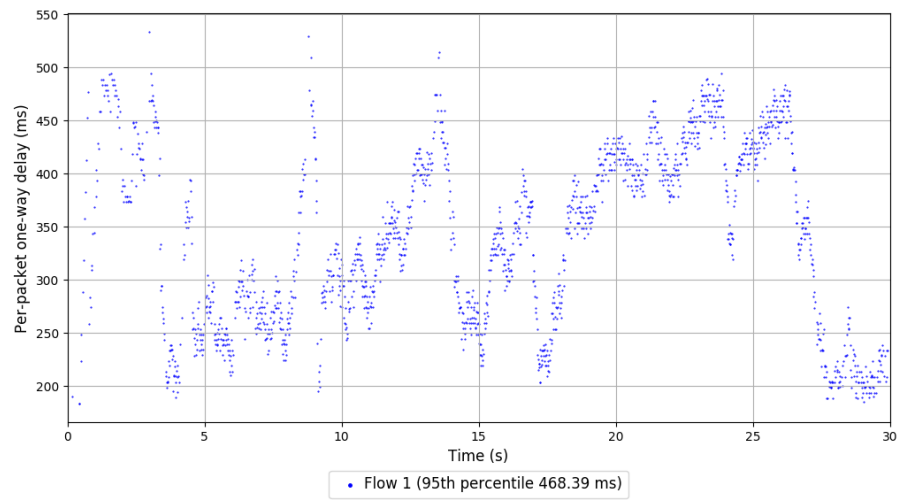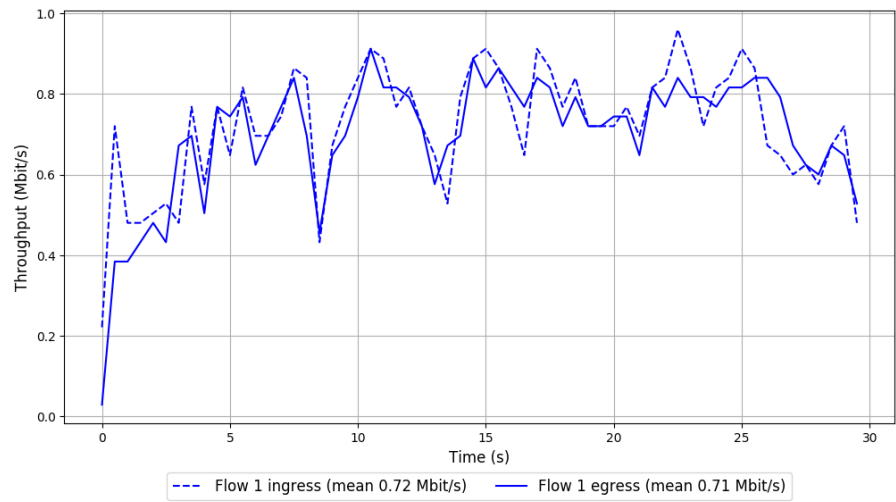
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.72 Mbit/s) ----   Flow 1 egress (mean 0.70 Mbit/s) ——

Flow 1 (95th percentile 469.79 ms)

```
Run 3: Statistics of TCP Cubic

Start at: Mon, 07 Aug 2017 00:01:34 +0000
End at: Mon, 07 Aug 2017 00:02:04 +0000
Local clock offset: 0.41 ms
Remote clock offset: 0.07 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:26 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 468.392 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 468.392 ms
Loss rate: 2.94%
```
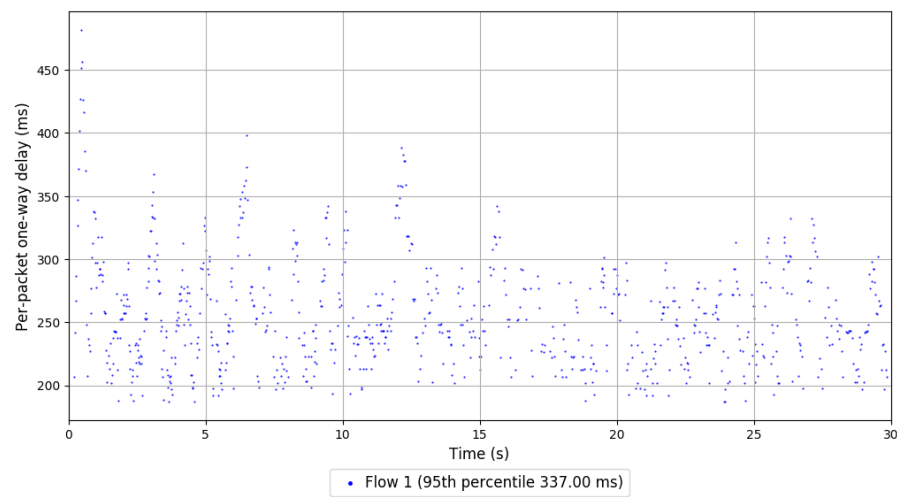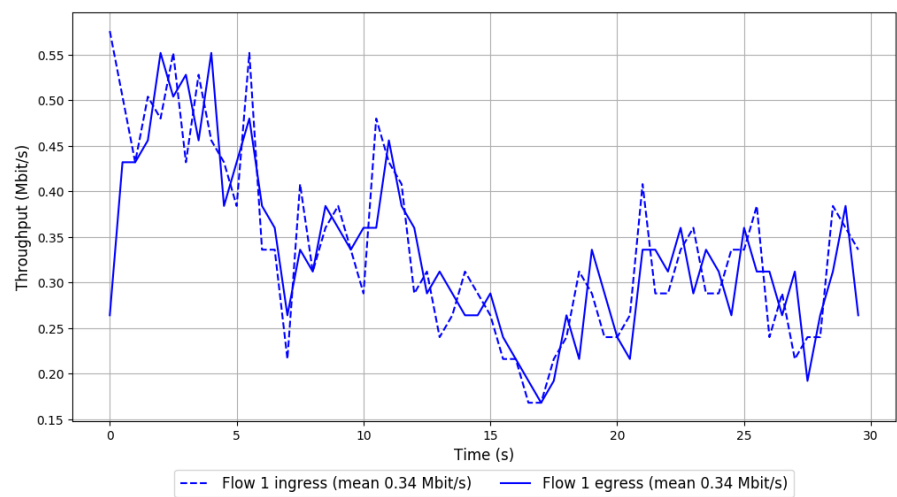
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.72 Mbit/s) --- Flow 1 egress (mean 0.71 Mbit/s)

Flow 1 (95th percentile 468.39 ms)

```
Run 1: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:19:51 +0000
End at: Sun, 06 Aug 2017 23:20:21 +0000
Local clock offset: 0.409 ms
Remote clock offset: -0.389 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:26 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 337.001 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 337.001 ms
Loss rate: 1.78%
```

Run 1: Report of KohoCC — Data Link

```
Run 2: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:38:13 +0000
End at: Sun, 06 Aug 2017 23:38:43 +0000
Local clock offset: 1.004 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:27 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 390.405 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 390.405 ms
Loss rate: 1.14%
```
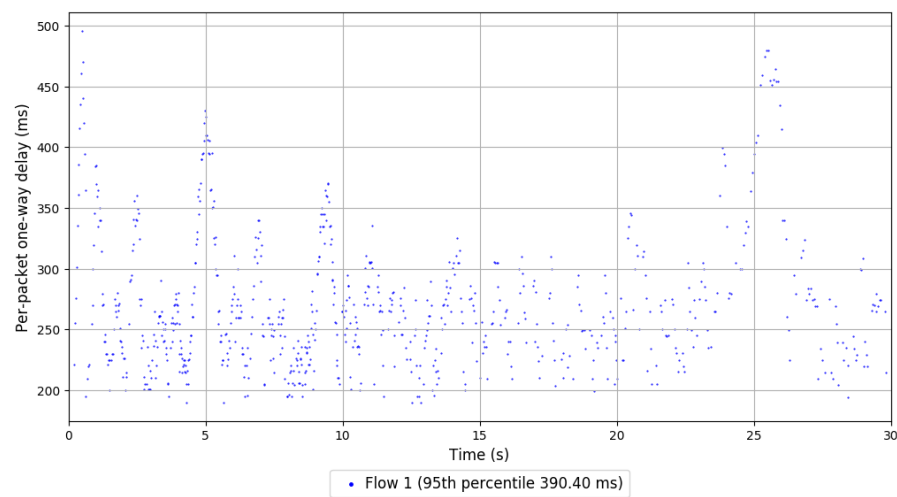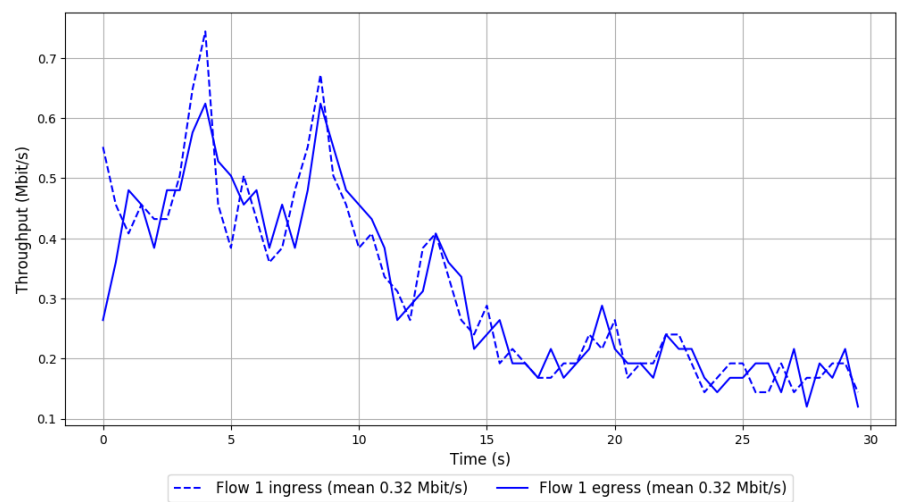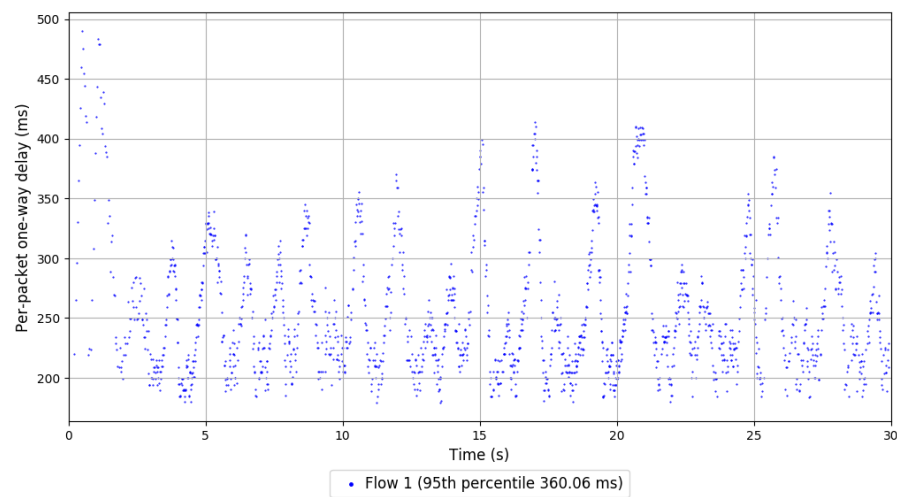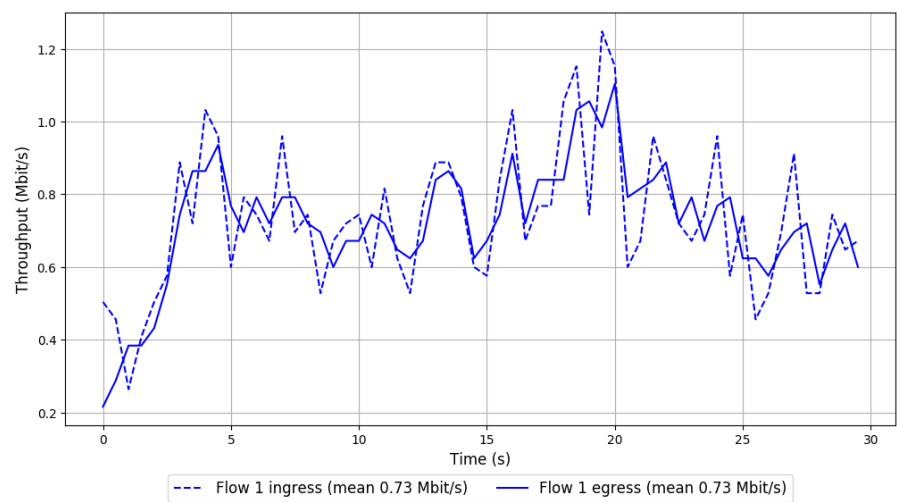
Run 2: Report of KohoCC — Data Link

```
Run 3: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:56:44 +0000
End at: Sun, 06 Aug 2017 23:57:14 +0000
Local clock offset: 0.417 ms
Remote clock offset: 0.037 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:27 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 360.062 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 360.062 ms
Loss rate: 1.20%
```

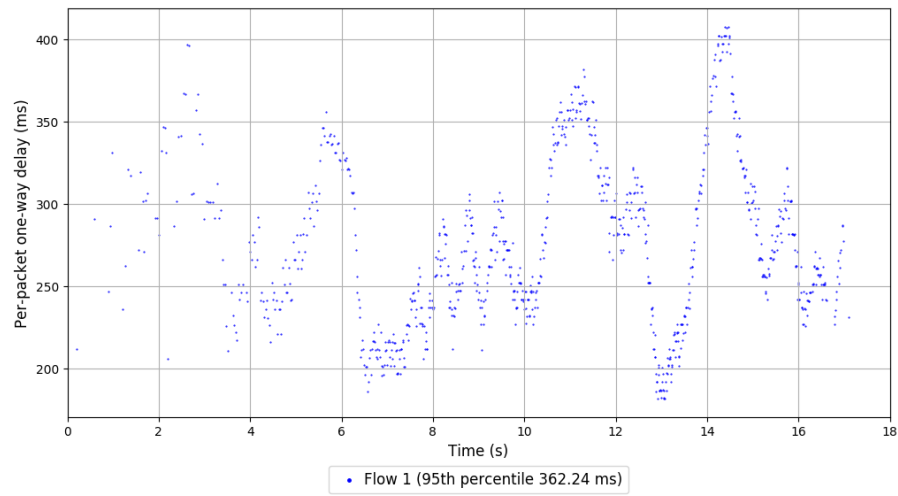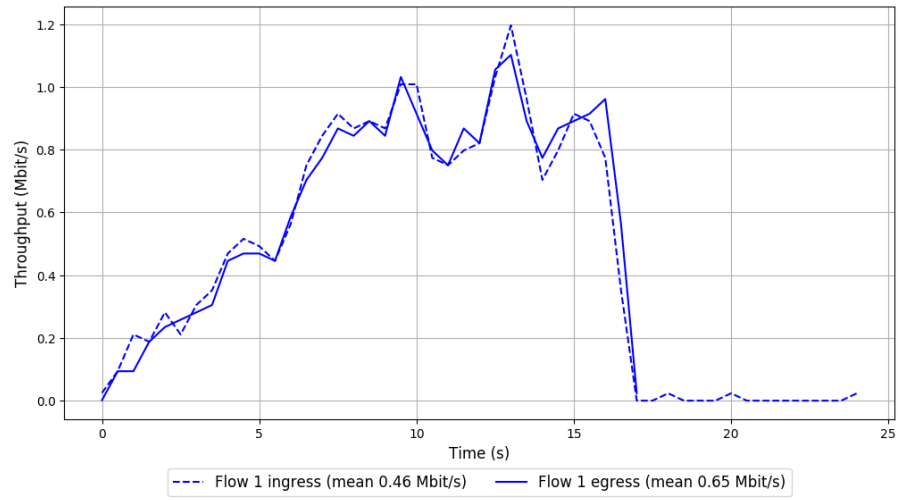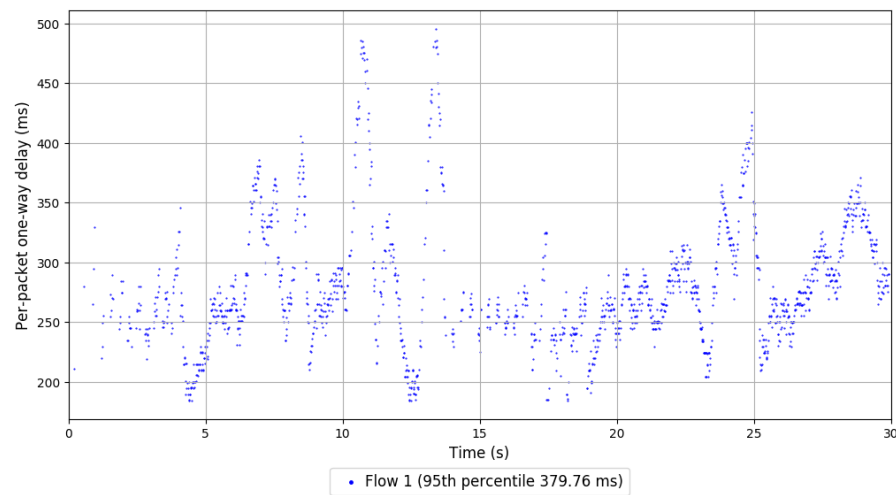Run 3: Report of KohoCC — Data Link

Run 1: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:34:31 +0000
End at: Sun, 06 Aug 2017 23:35:01 +0000
Local clock offset: 0.178 ms
Remote clock offset: -0.17 ms

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.46 Mbit/s)   Flow 1 egress (mean 0.65 Mbit/s)

Flow 1 (95th percentile 362.24 ms)

35

```
Run 2: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:53:06 +0000
End at: Sun, 06 Aug 2017 23:53:36 +0000
Local clock offset: 0.474 ms
Remote clock offset: 0.025 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:28 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 379.760 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 379.760 ms
Loss rate: 1.48%
```
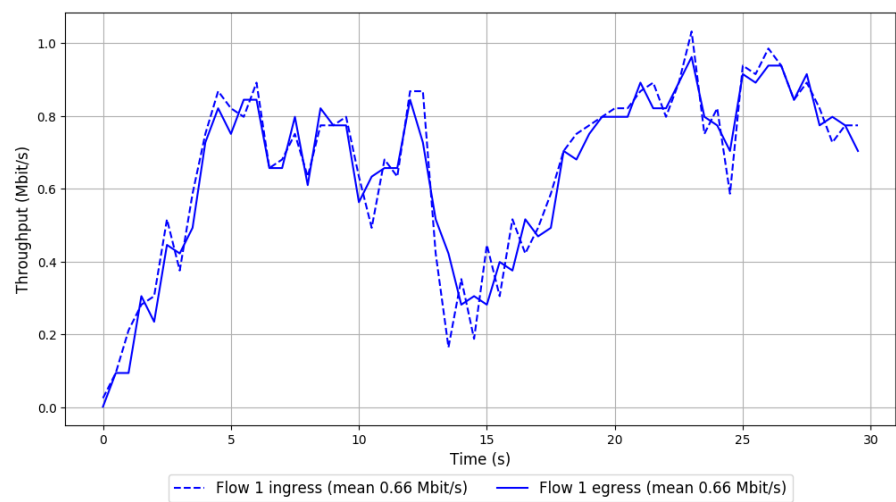
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: Mon, 07 Aug 2017 00:11:13 +0000
End at: Mon, 07 Aug 2017 00:11:43 +0000
Local clock offset: 0.194 ms
Remote clock offset: 0.157 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:29 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 390.283 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 390.283 ms
Loss rate: 1.85%
```
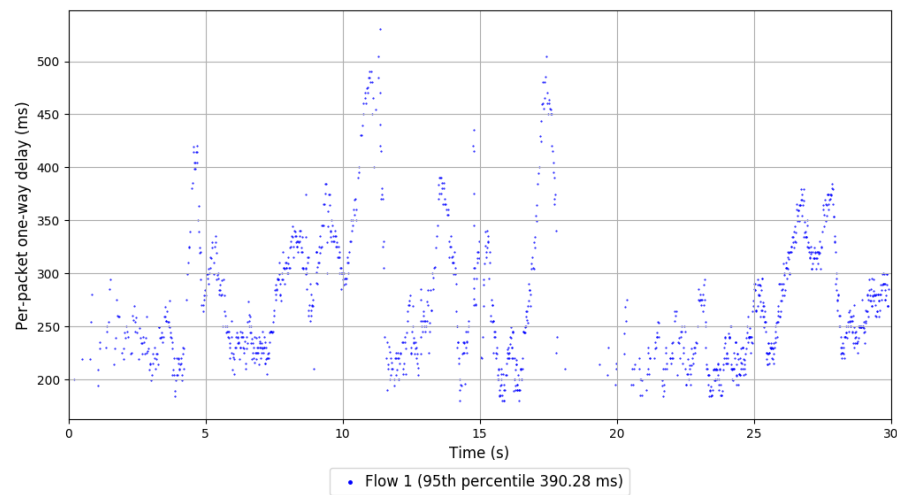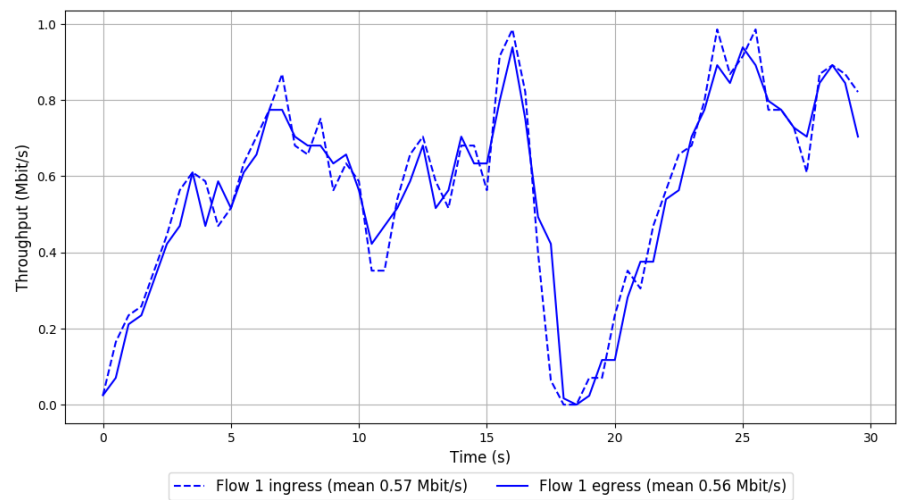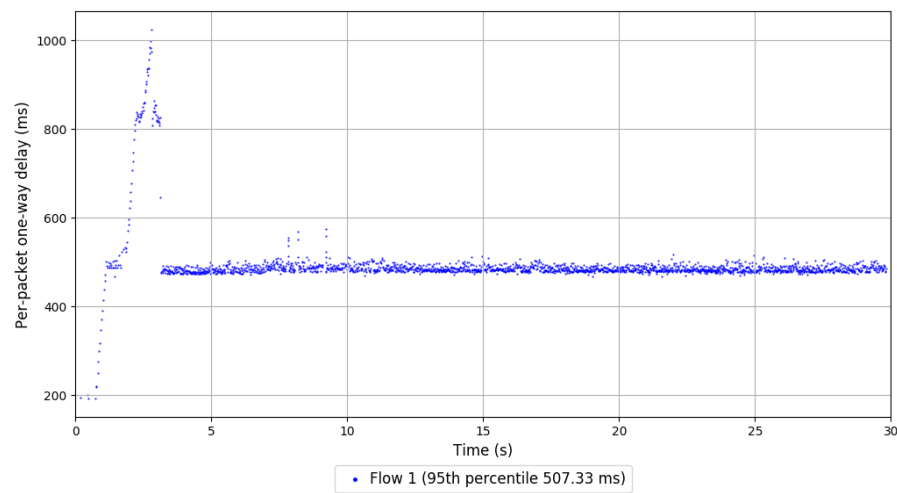
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.57 Mbit/s)   Flow 1 egress (mean 0.56 Mbit/s)

Flow 1 (95th percentile 390.28 ms)

```
Run 1: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:28:23 +0000
End at: Sun, 06 Aug 2017 23:28:53 +0000
Local clock offset: 0.491 ms
Remote clock offset: -0.263 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:30 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 507.331 ms
Loss rate: 91.89%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 507.331 ms
Loss rate: 91.89%
```
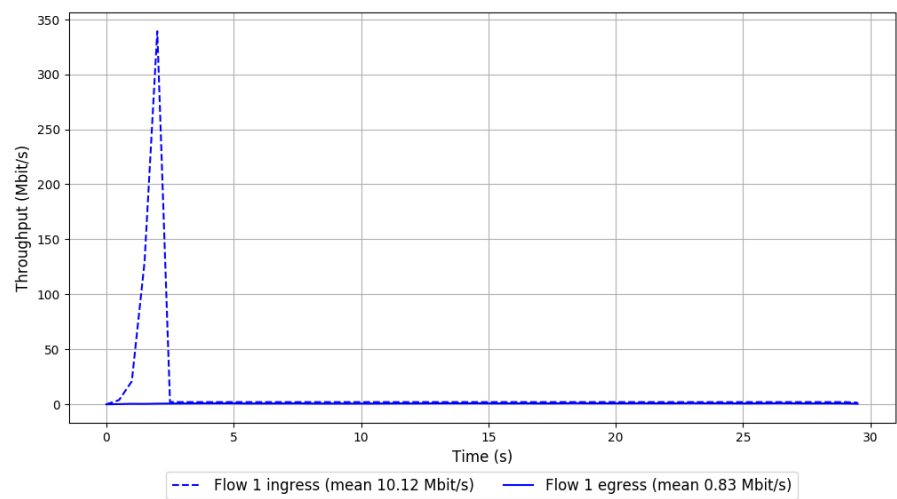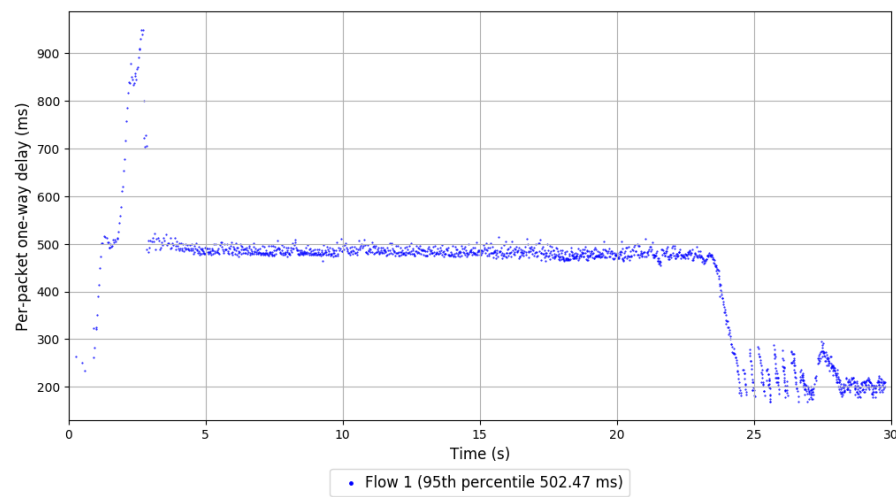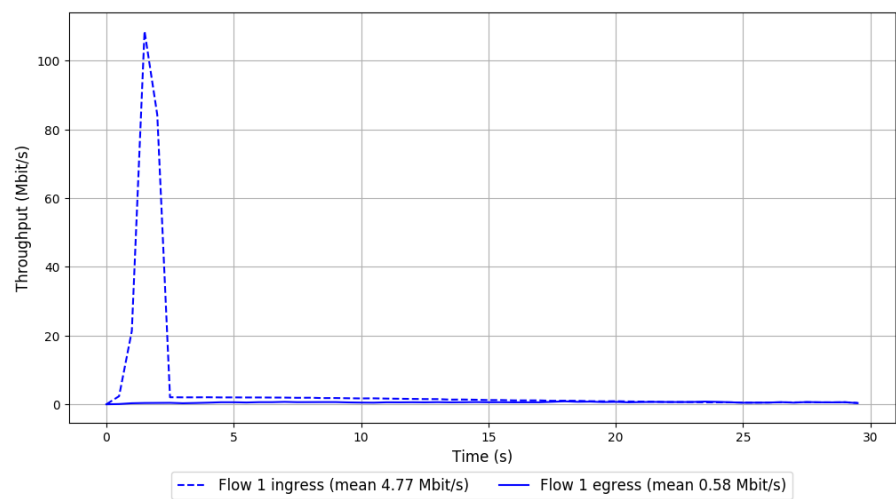
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 10.12 Mbit/s)   ——— Flow 1 egress (mean 0.83 Mbit/s)

• Flow 1 (95th percentile 507.33 ms)

```
Run 2: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:46:58 +0000
End at: Sun, 06 Aug 2017 23:47:28 +0000
Local clock offset: 0.474 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:30 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 502.474 ms
Loss rate: 88.01%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 502.474 ms
Loss rate: 88.01%
```
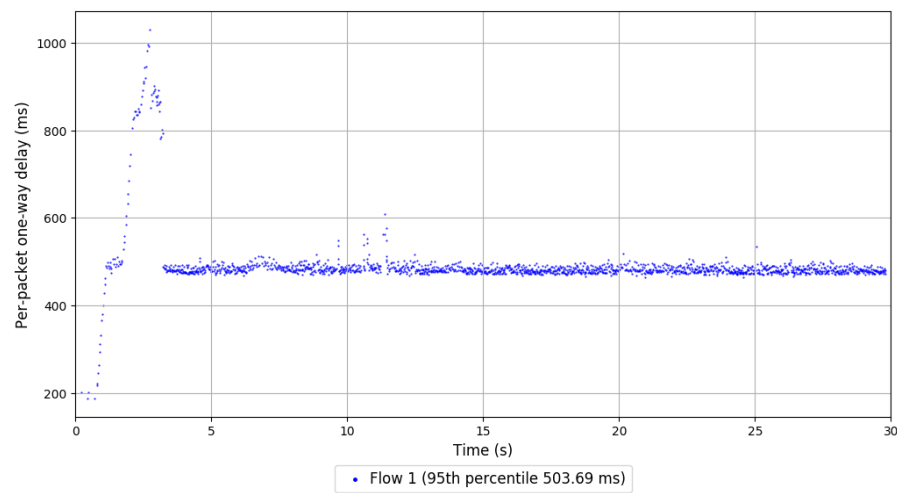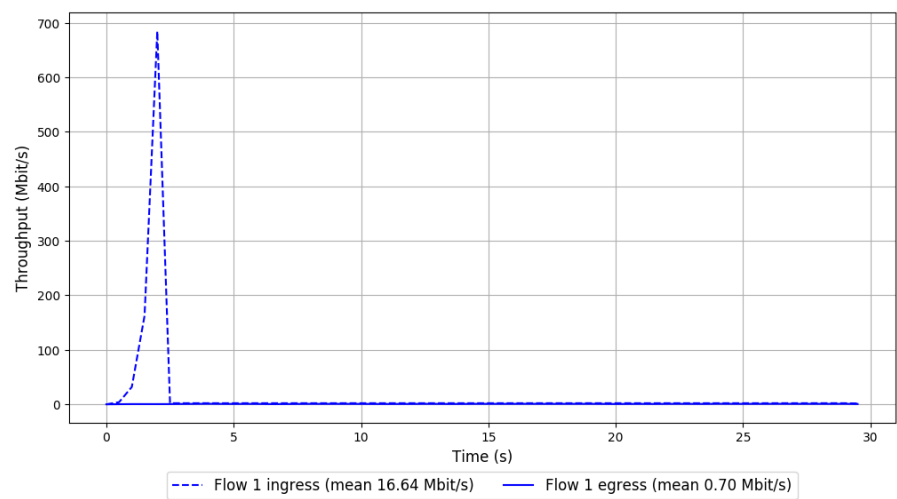
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 4.77 Mbit/s)   Flow 1 egress (mean 0.58 Mbit/s)

Flow 1 (95th percentile 502.47 ms)

```
Run 3: Statistics of PCC

Start at: Mon, 07 Aug 2017 00:05:11 +0000
End at: Mon, 07 Aug 2017 00:05:41 +0000
Local clock offset: 0.152 ms
Remote clock offset: 0.073 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:32 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 503.685 ms
Loss rate: 95.86%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 503.685 ms
Loss rate: 95.86%
```
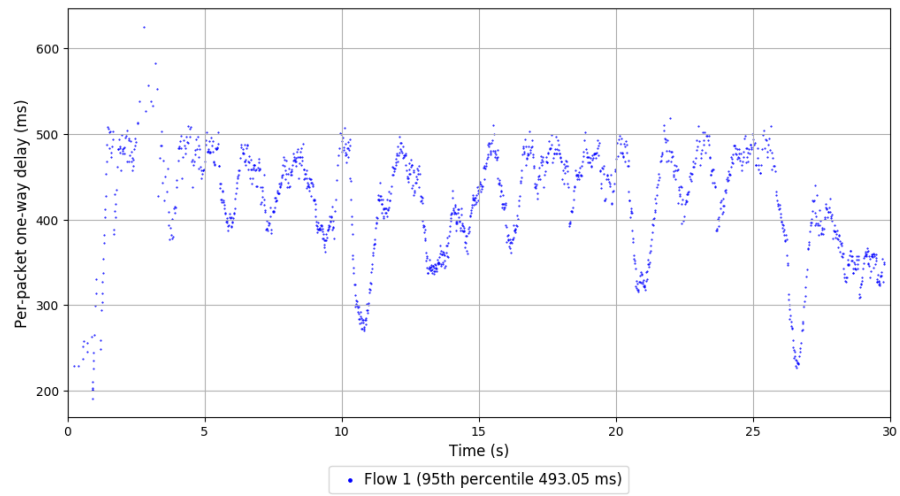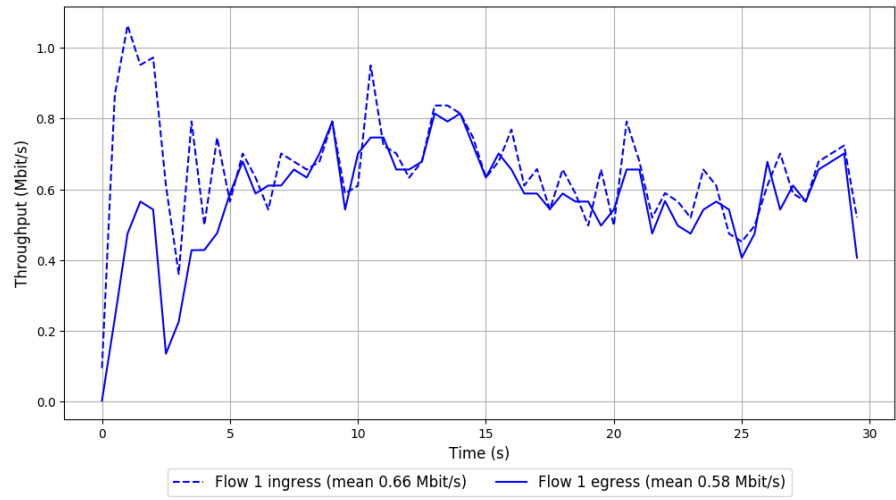
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 16.64 Mbit/s)　　　Flow 1 egress (mean 0.70 Mbit/s)

Flow 1 (95th percentile 503.69 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:23:33 +0000
End at: Sun, 06 Aug 2017 23:24:03 +0000
Local clock offset: 0.122 ms
Remote clock offset: -0.378 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:32 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 493.051 ms
Loss rate: 12.34%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 493.051 ms
Loss rate: 12.34%
```
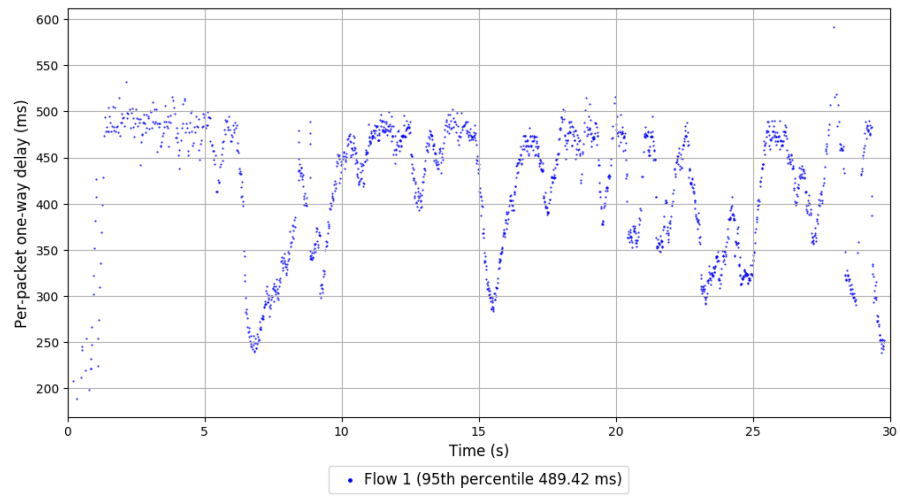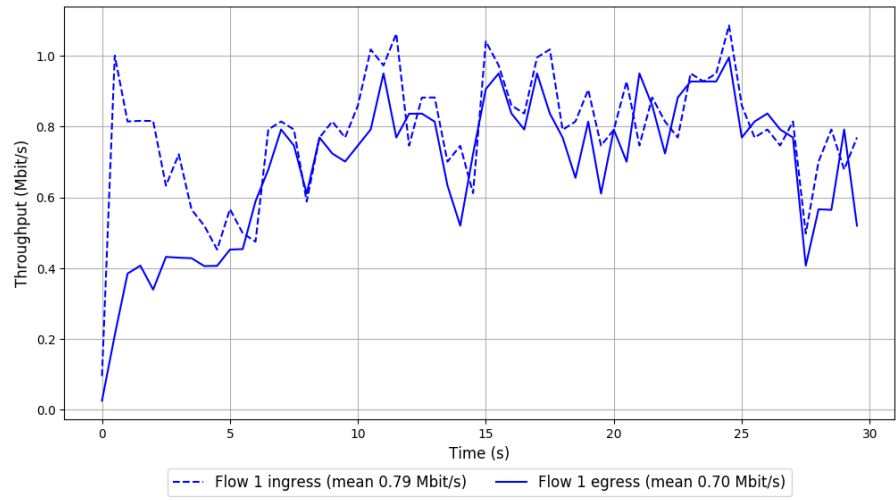
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:41:59 +0000
End at: Sun, 06 Aug 2017 23:42:29 +0000
Local clock offset: 0.457 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:32 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 489.420 ms
Loss rate: 12.32%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 489.420 ms
Loss rate: 12.32%
```
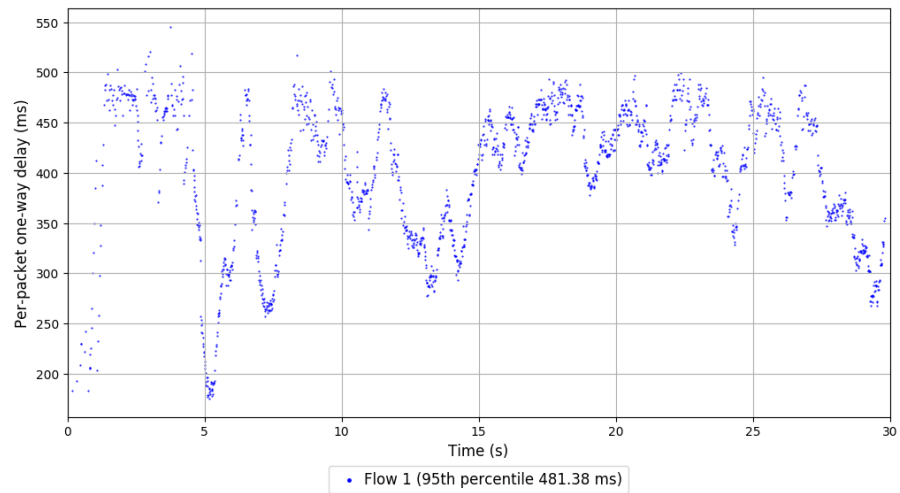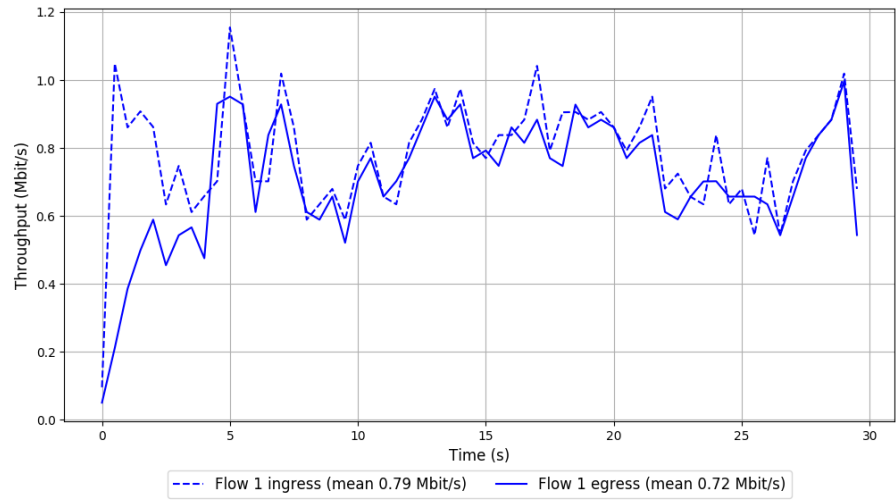
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.79 Mbit/s)   Flow 1 egress (mean 0.70 Mbit/s)

Flow 1 (95th percentile 489.42 ms)

49

```
Run 3: Statistics of QUIC Cubic

Start at: Mon, 07 Aug 2017 00:00:21 +0000
End at: Mon, 07 Aug 2017 00:00:51 +0000
Local clock offset: 0.139 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:33 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 481.378 ms
Loss rate: 9.06%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 481.378 ms
Loss rate: 9.06%
```
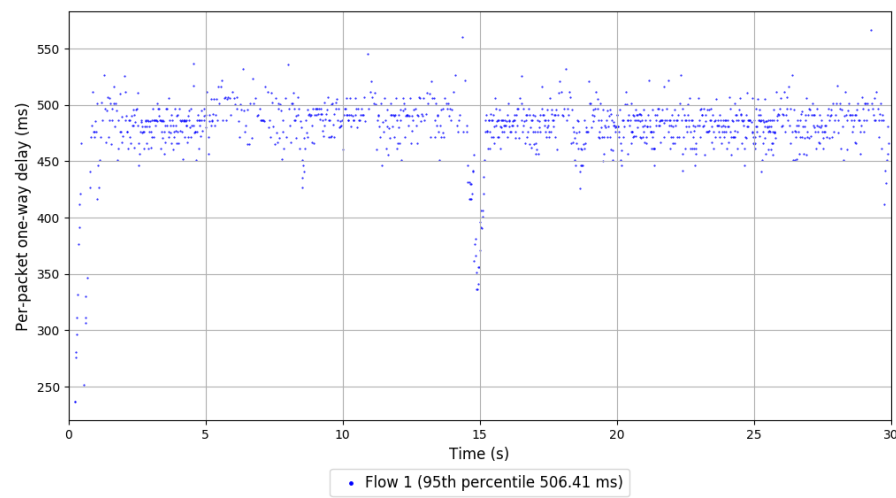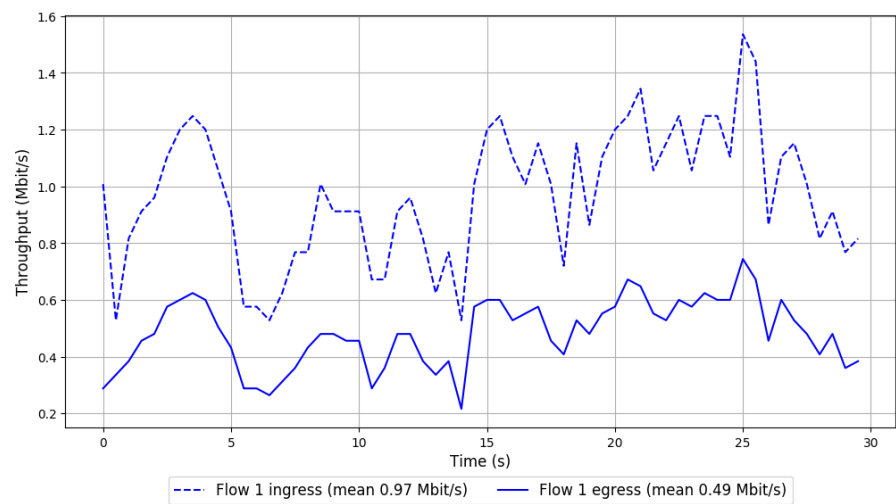
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.79 Mbit/s)   Flow 1 egress (mean 0.72 Mbit/s)

Flow 1 (95th percentile 481.38 ms)

```
Run 1: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:22:16 +0000
End at: Sun, 06 Aug 2017 23:22:46 +0000
Local clock offset: 0.472 ms
Remote clock offset: -0.351 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:33 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 506.406 ms
Loss rate: 50.37%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 506.406 ms
Loss rate: 50.37%
```

Run 1: Report of Saturator — Data Link

```
Run 2: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:40:46 +0000
End at: Sun, 06 Aug 2017 23:41:17 +0000
Local clock offset: 0.084 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:34 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 494.693 ms
Loss rate: 50.31%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 494.693 ms
Loss rate: 50.31%
```
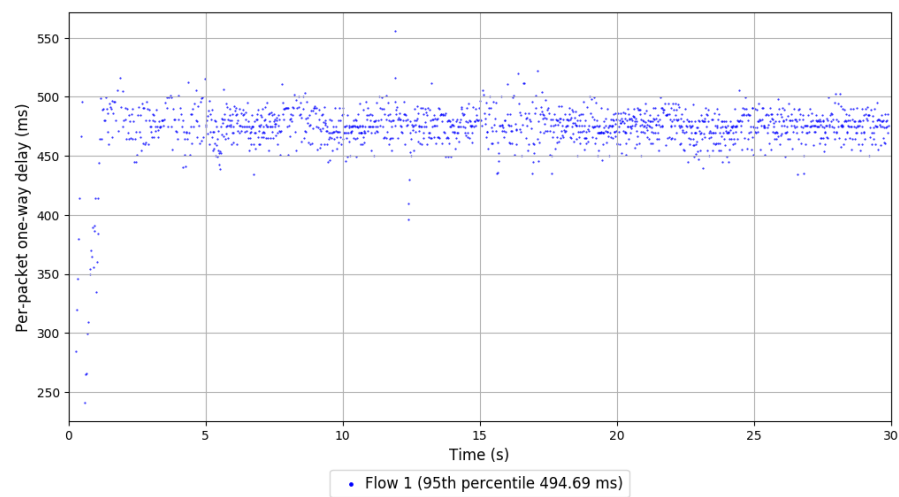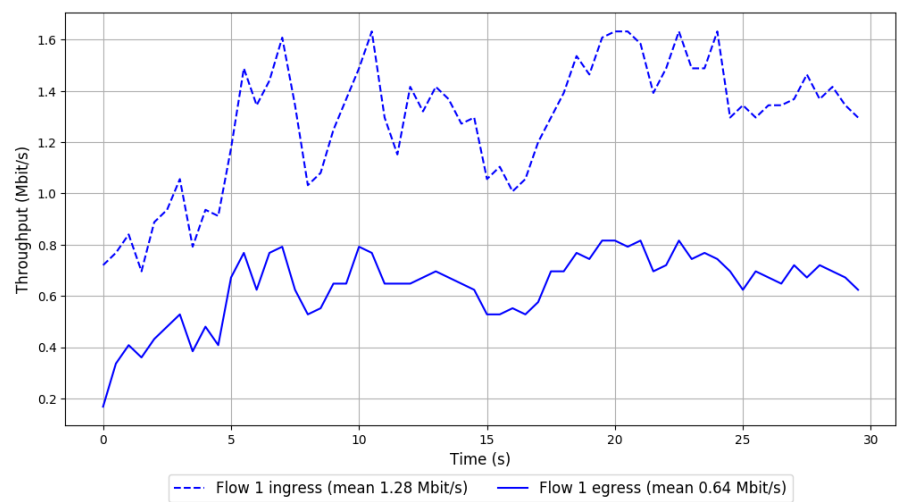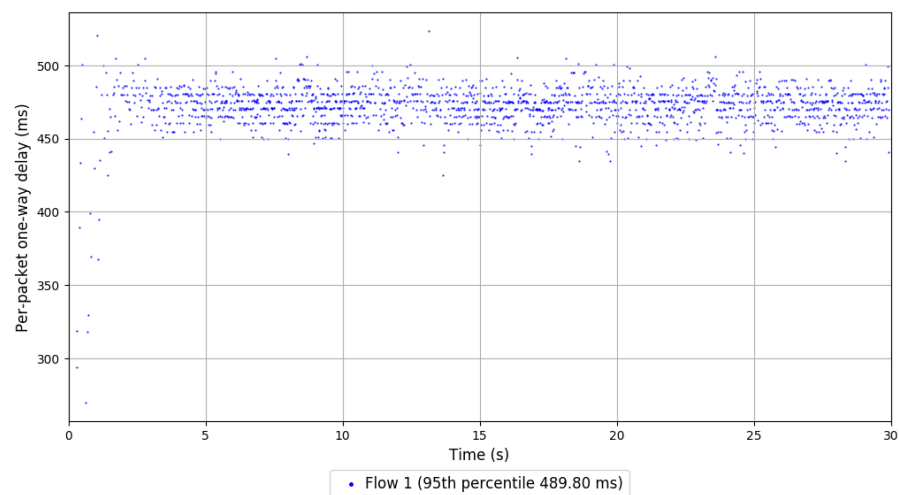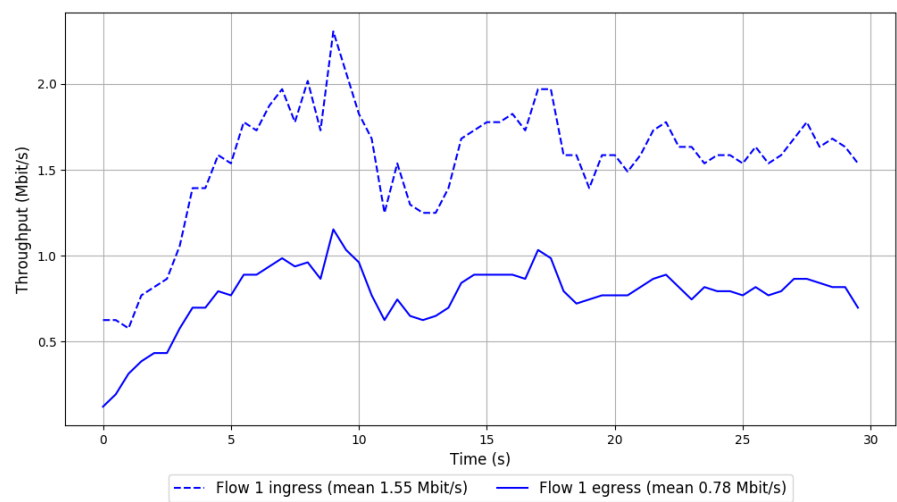
Run 2: Report of Saturator — Data Link

```
Run 3: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:59:08 +0000
End at: Sun, 06 Aug 2017 23:59:38 +0000
Local clock offset: 0.429 ms
Remote clock offset: 0.032 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:34 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 489.795 ms
Loss rate: 50.31%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 489.795 ms
Loss rate: 50.31%
```

Run 3: Report of Saturator — Data Link

```
Run 1: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:21:03 +0000
End at: Sun, 06 Aug 2017 23:21:33 +0000
Local clock offset: 0.18 ms
Remote clock offset: -0.362 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 240.201 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 240.201 ms
Loss rate: 2.39%
```
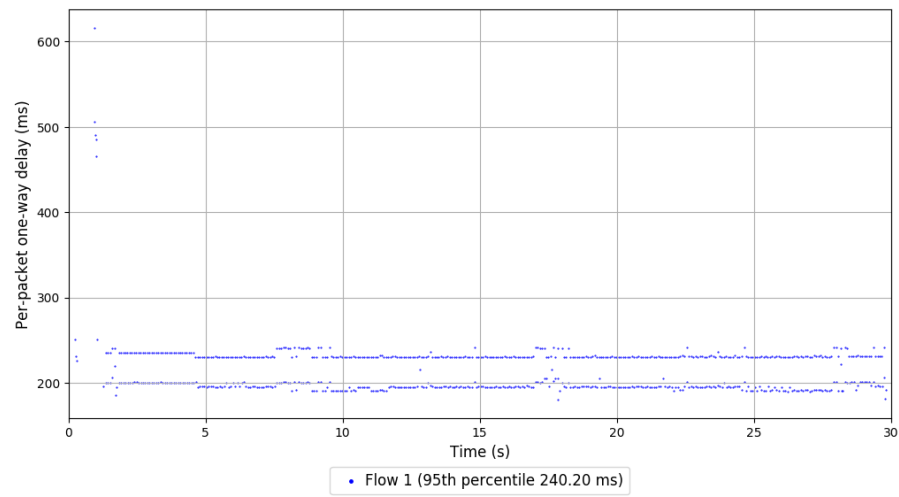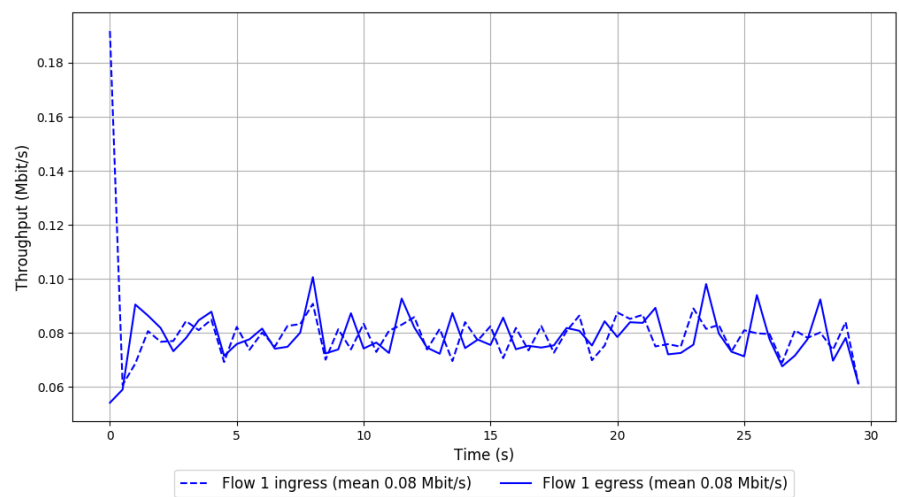
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:39:30 +0000
End at: Sun, 06 Aug 2017 23:40:00 +0000
Local clock offset: 0.405 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:36 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 258.858 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 258.858 ms
Loss rate: 0.68%
```
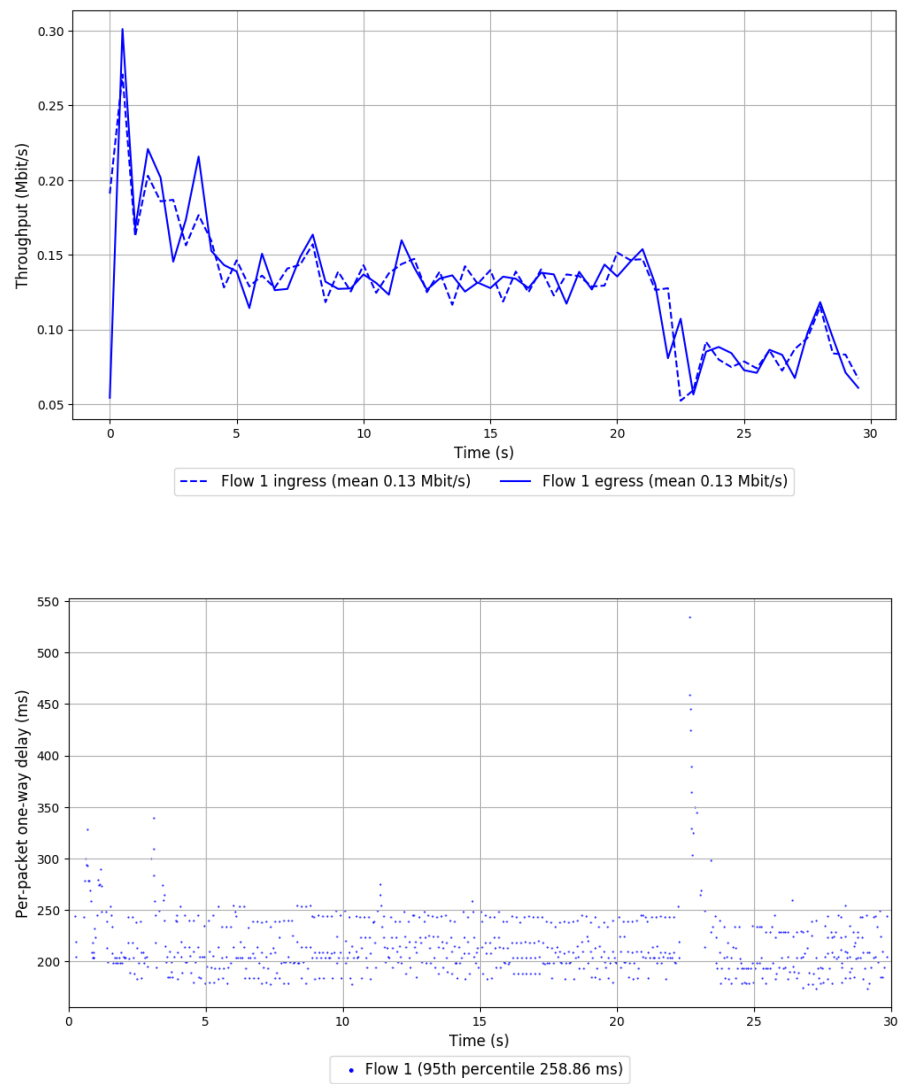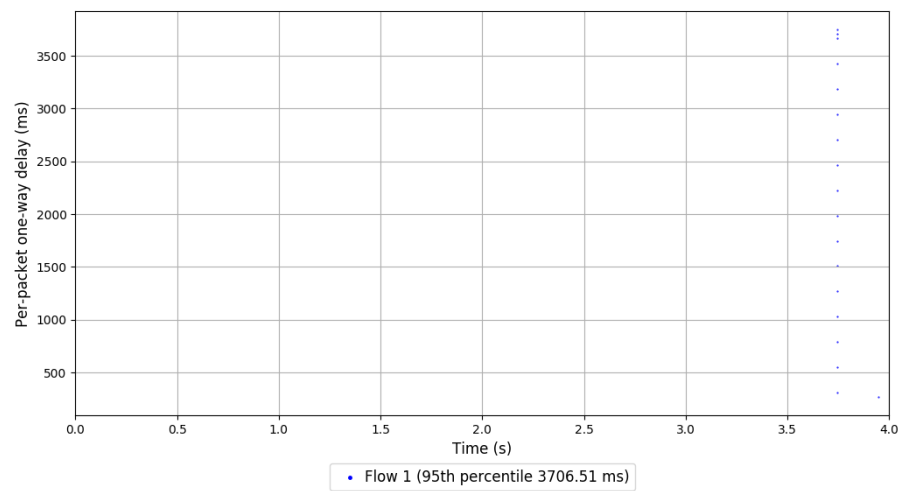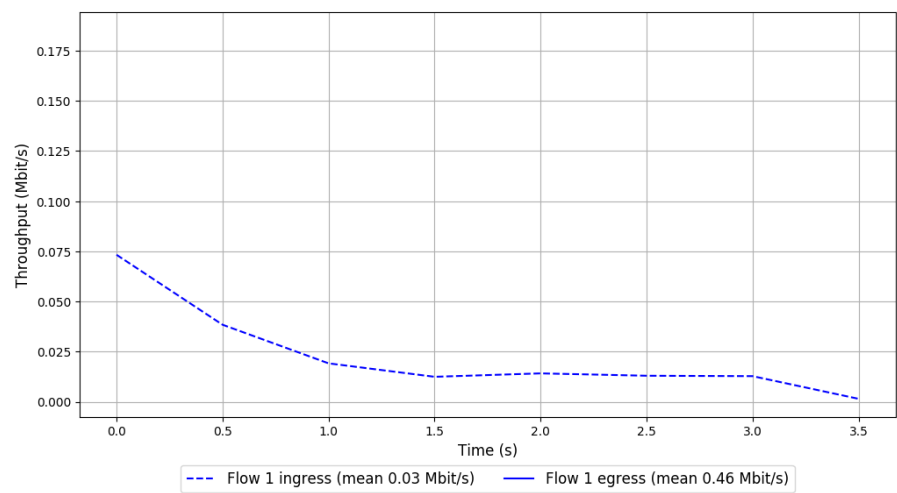
Run 2: Report of SCReAM — Data Link

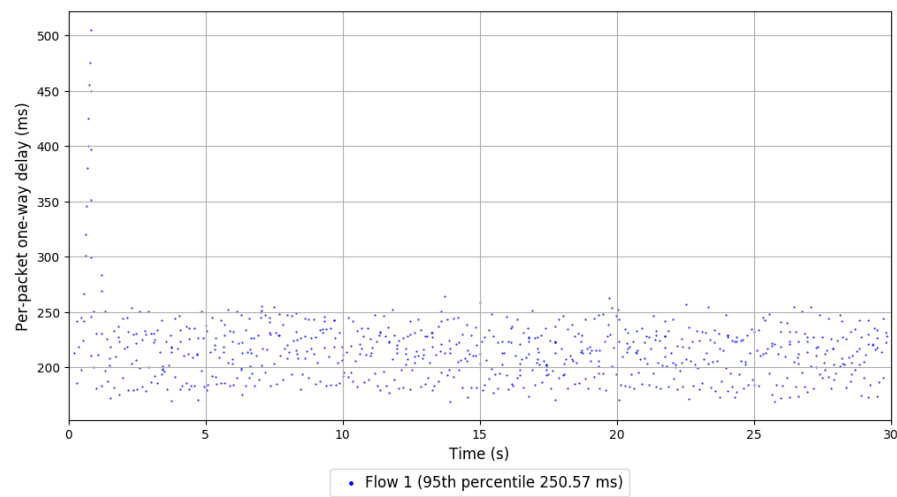Run 3: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:57:56 +0000
End at: Sun, 06 Aug 2017 23:58:26 +0000
Local clock offset: 0.178 ms
Remote clock offset: 0.076 ms

Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.03 Mbit/s)   Flow 1 egress (mean 0.46 Mbit/s)

Flow 1 (95th percentile 3706.51 ms)

```
Run 1: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:33:18 +0000
End at: Sun, 06 Aug 2017 23:33:48 +0000
Local clock offset: 0.191 ms
Remote clock offset: -0.15 ms
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:51:54 +0000
End at: Sun, 06 Aug 2017 23:52:24 +0000
Local clock offset: 0.158 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:37 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 250.570 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 250.570 ms
Loss rate: 1.14%
```
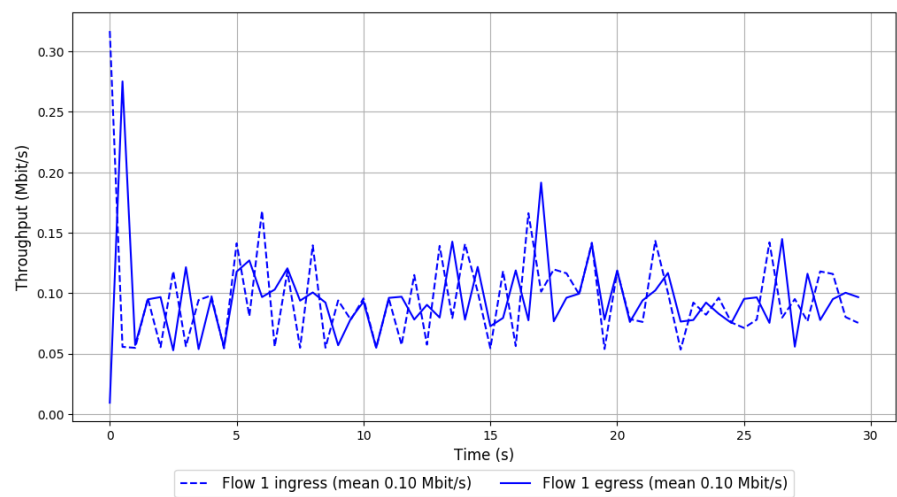
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: Mon, 07 Aug 2017 00:10:01 +0000
End at: Mon, 07 Aug 2017 00:10:31 +0000
Local clock offset: 0.08 ms
Remote clock offset: 0.156 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:38 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 248.225 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 248.225 ms
Loss rate: 2.22%
```
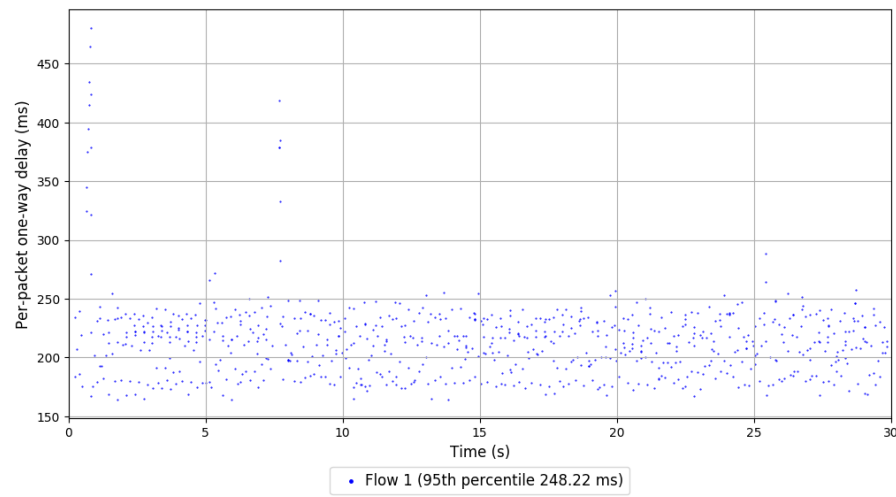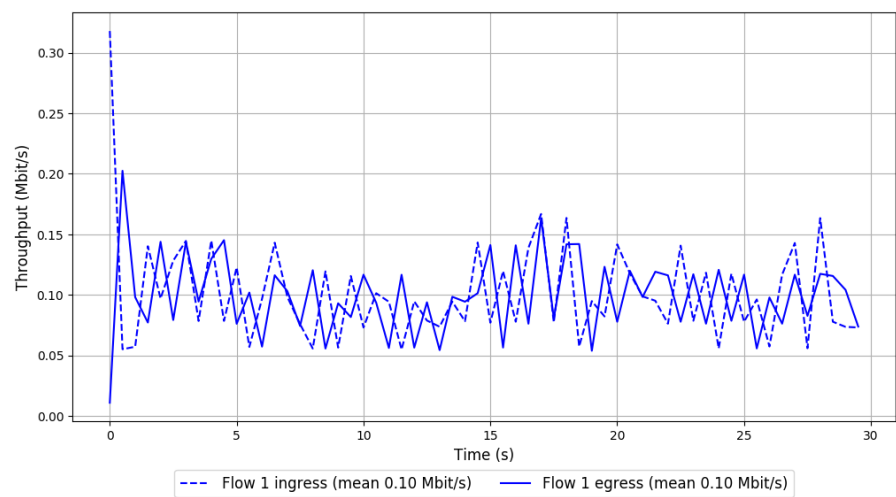
Run 3: Report of Sprout — Data Link
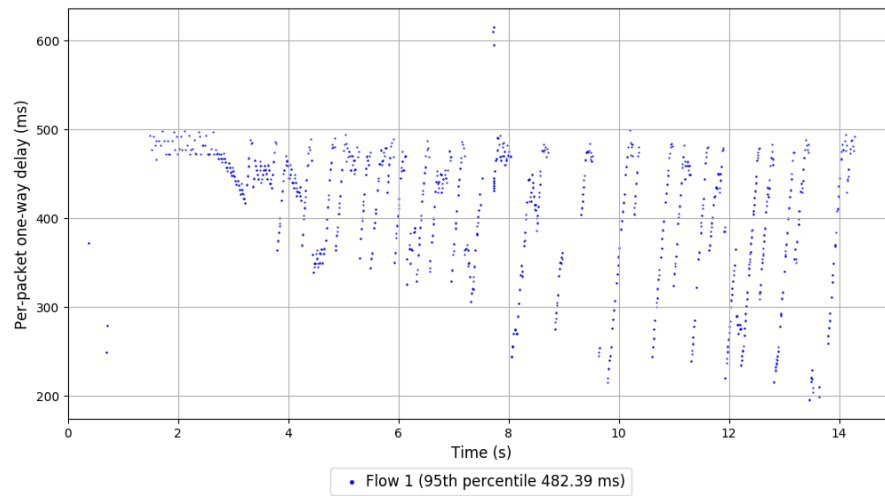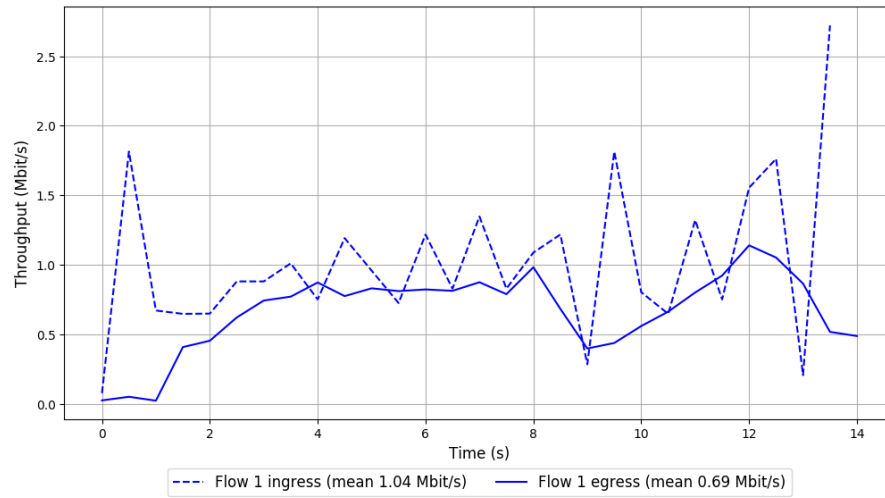
```
Run 1: Statistics of TaoVA-100x

Start at: Sun, 06 Aug 2017 23:30:54 +0000
End at: Sun, 06 Aug 2017 23:31:24 +0000
Local clock offset: 0.402 ms
Remote clock offset: -0.253 ms
```

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

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

Start at: Sun, 06 Aug 2017 23:49:29 +0000
End at: Sun, 06 Aug 2017 23:49:59 +0000
Local clock offset: 0.427 ms
Remote clock offset: 0.003 ms
```
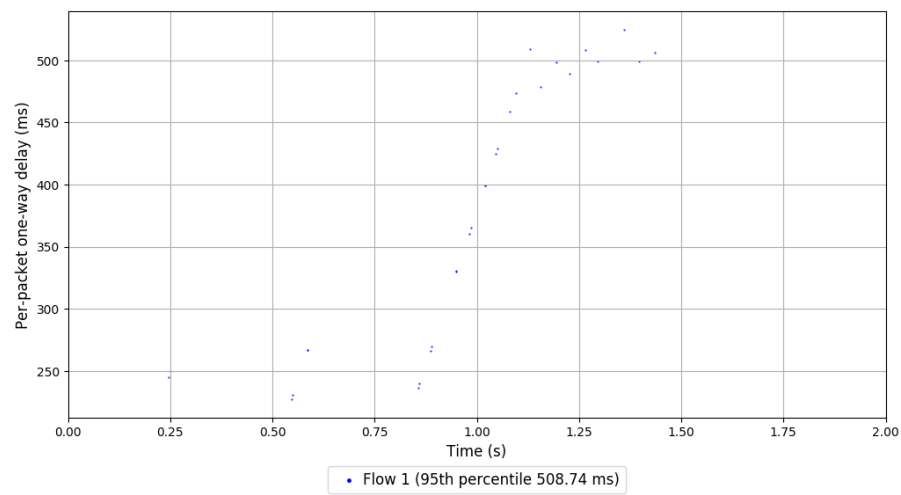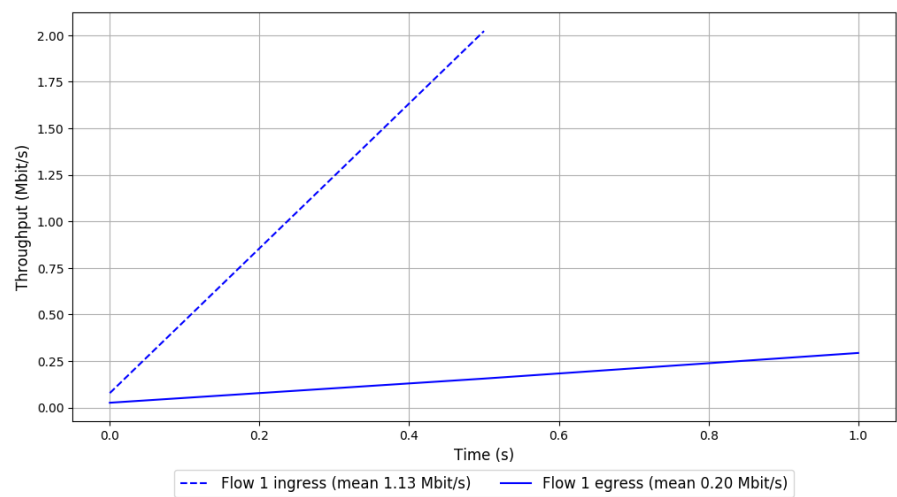
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 1.13 Mbit/s)   Flow 1 egress (mean 0.20 Mbit/s)

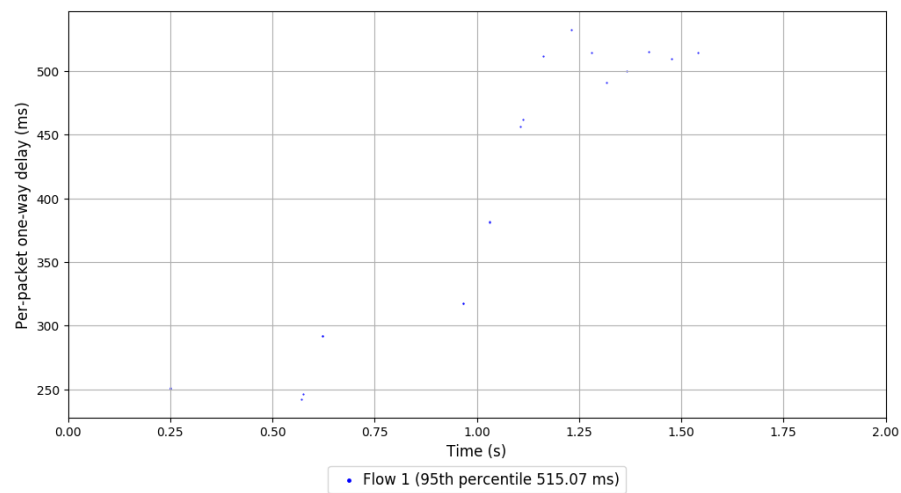• Flow 1 (95th percentile 508.74 ms)
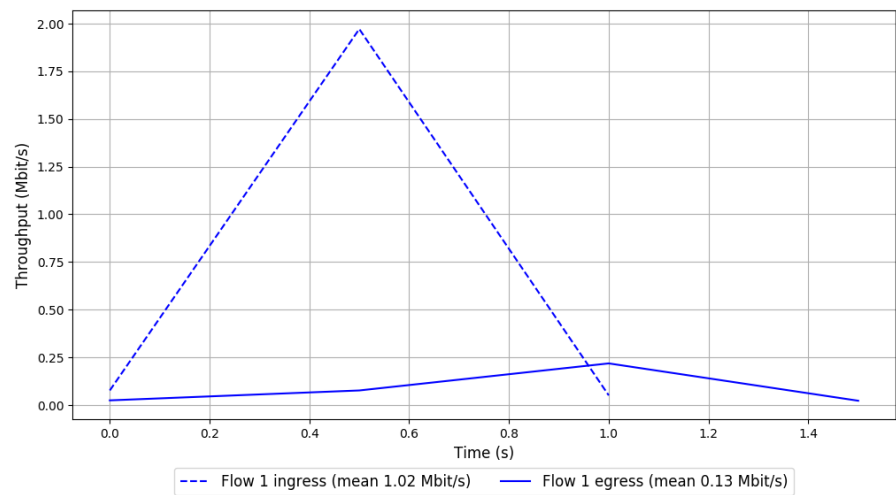
Run 3: Statistics of TaoVA-100x

Start at: Mon, 07 Aug 2017 00:07:37 +0000
End at: Mon, 07 Aug 2017 00:08:07 +0000
Local clock offset: 0.17 ms
Remote clock offset: 0.135 ms

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

```
Run 1: Statistics of TCP Vegas

Start at: Sun, 06 Aug 2017 23:25:58 +0000
End at: Sun, 06 Aug 2017 23:26:28 +0000
Local clock offset: 0.408 ms
Remote clock offset: -0.315 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:40 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 394.962 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 394.962 ms
Loss rate: 2.40%
```
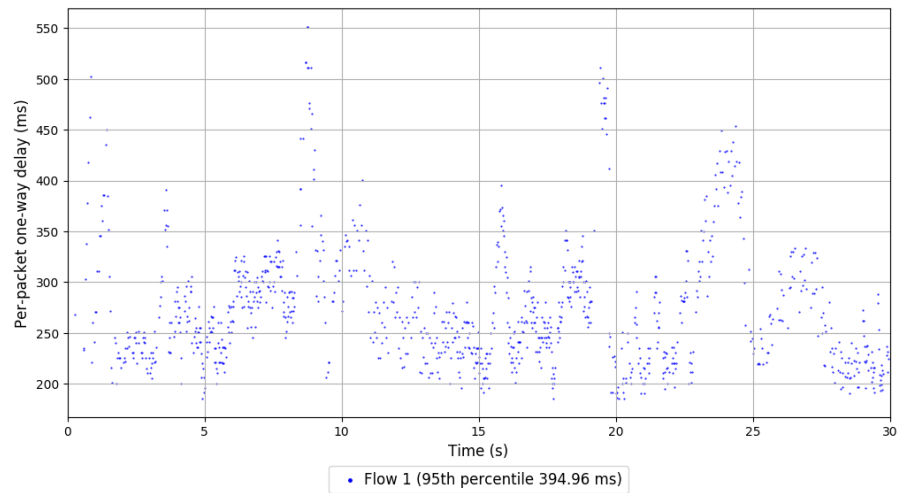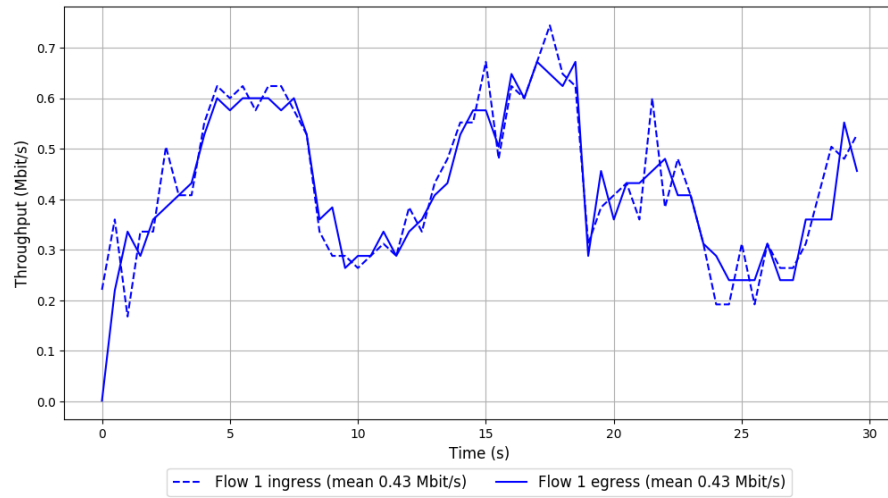
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: Sun, 06 Aug 2017 23:44:29 +0000
End at: Sun, 06 Aug 2017 23:44:59 +0000
Local clock offset: 0.211 ms
Remote clock offset: -0.115 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:41 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 310.356 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 310.356 ms
Loss rate: 1.02%
```
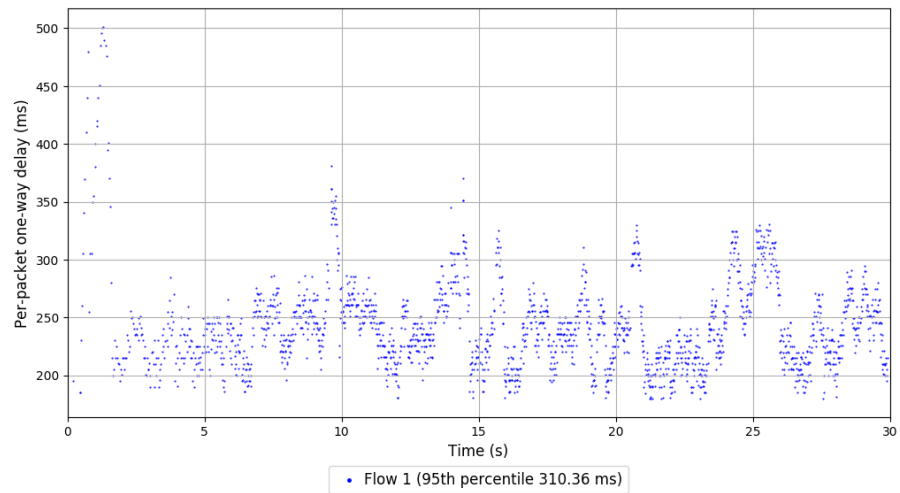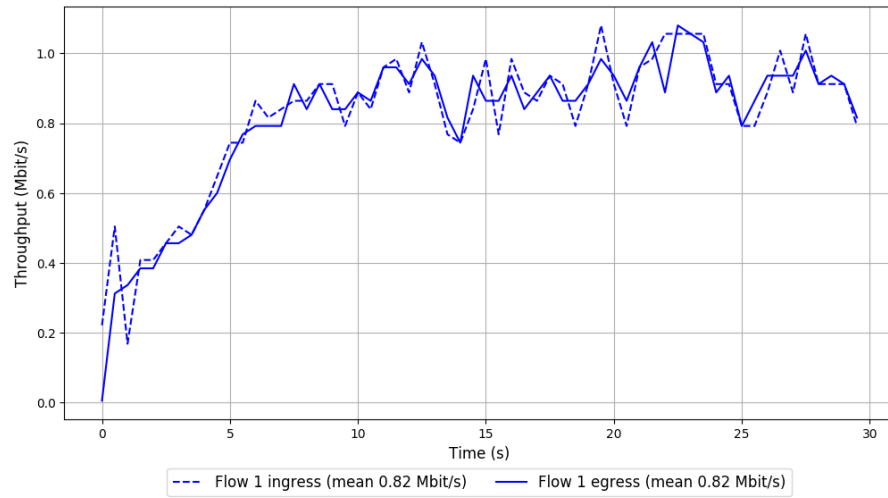
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: Mon, 07 Aug 2017 00:02:46 +0000
End at: Mon, 07 Aug 2017 00:03:16 +0000
Local clock offset: 0.085 ms
Remote clock offset: 0.099 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:41 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 341.734 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 341.734 ms
Loss rate: 1.34%
```
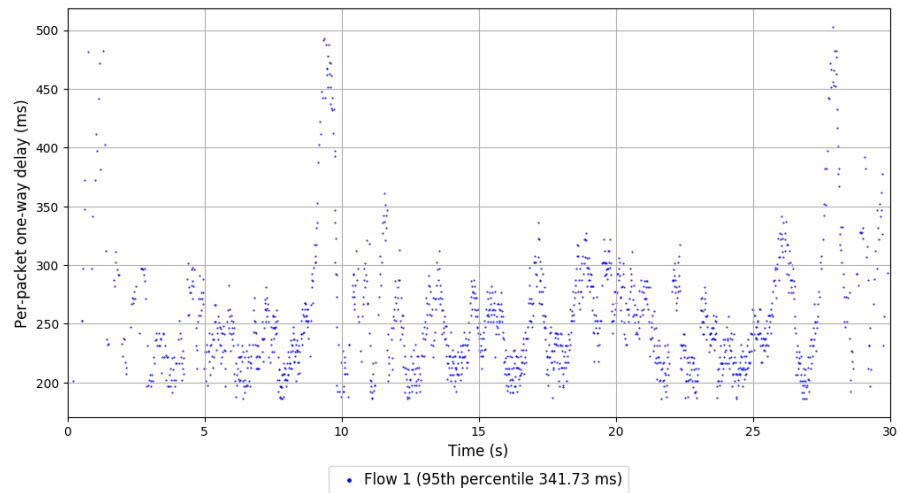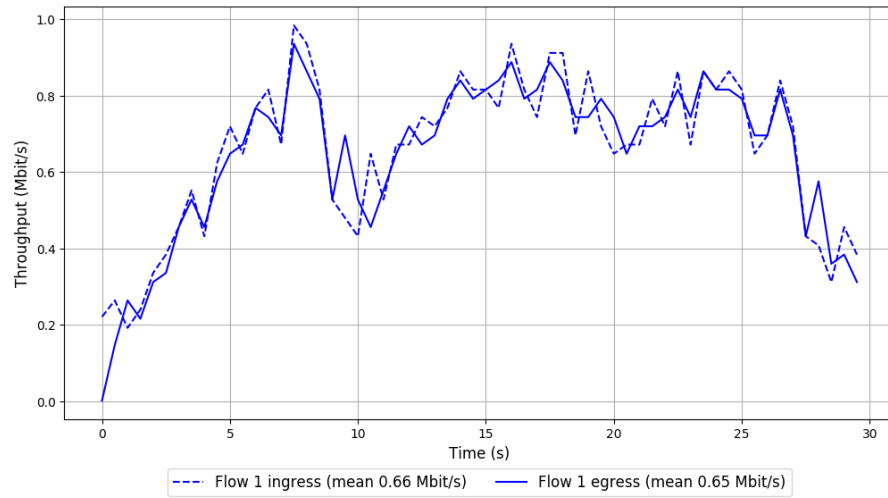
Run 3: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:29:41 +0000
End at: Sun, 06 Aug 2017 23:30:11 +0000
Local clock offset: 0.146 ms
Remote clock offset: -0.235 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:42 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 494.209 ms
Loss rate: 70.53%
-- Flow 1:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 494.209 ms
Loss rate: 70.53%
```
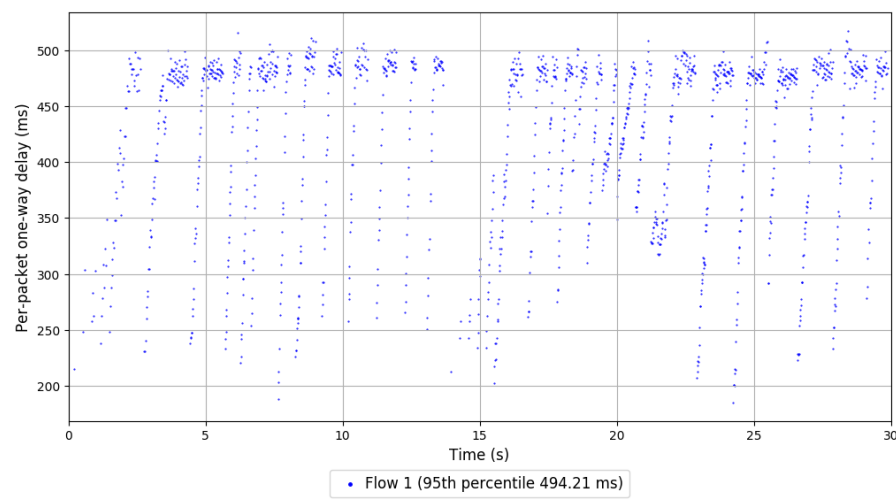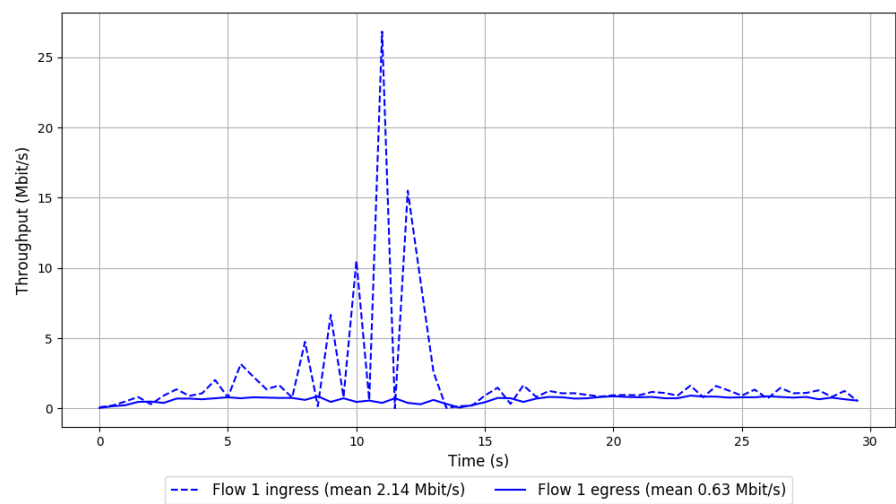
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:48:16 +0000
End at: Sun, 06 Aug 2017 23:48:46 +0000
Local clock offset: 0.178 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 503.271 ms
Loss rate: 95.71%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 503.271 ms
Loss rate: 95.71%
```
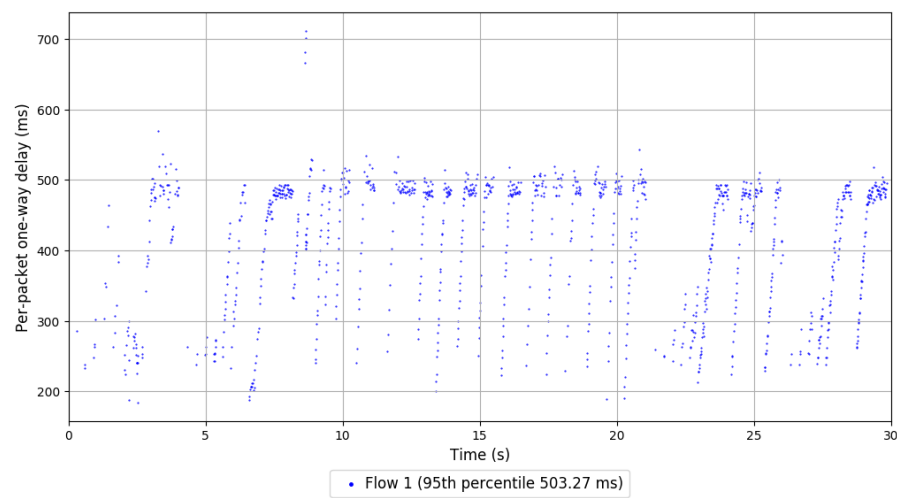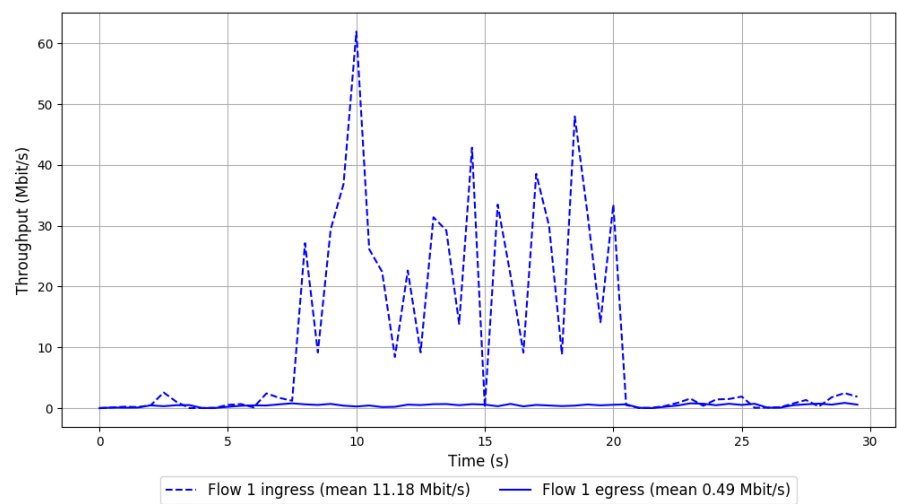
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: Mon, 07 Aug 2017 00:06:24 +0000
End at: Mon, 07 Aug 2017 00:06:54 +0000
Local clock offset: 0.13 ms
Remote clock offset: 0.099 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 496.457 ms
Loss rate: 51.83%
-- Flow 1:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 496.457 ms
Loss rate: 51.83%
```
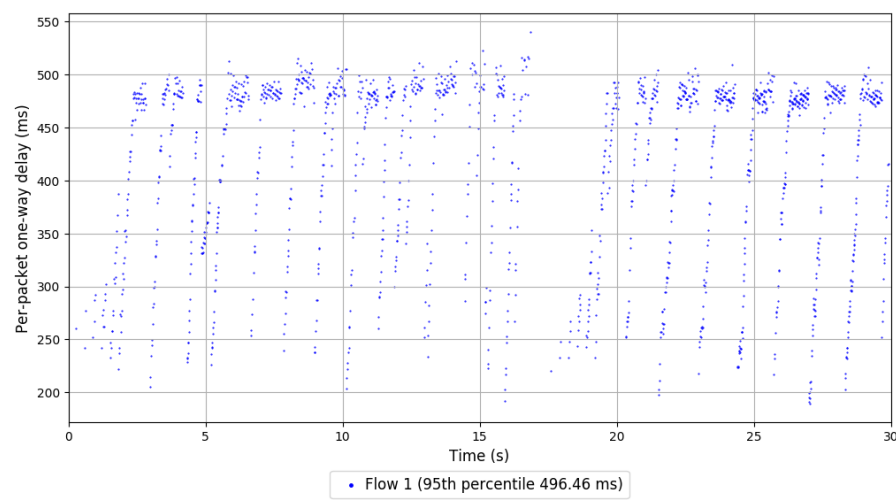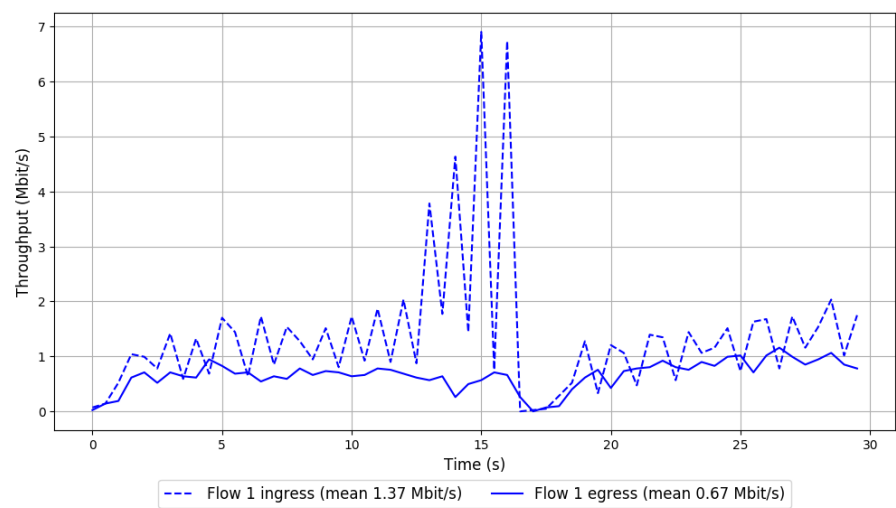
Run 3: Report of Verus — Data Link

```
Run 1: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:27:10 +0000
End at: Sun, 06 Aug 2017 23:27:40 +0000
Local clock offset: 0.486 ms
Remote clock offset: -0.29 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:44 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 420.526 ms
Loss rate: 3.62%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 420.526 ms
Loss rate: 3.62%
```
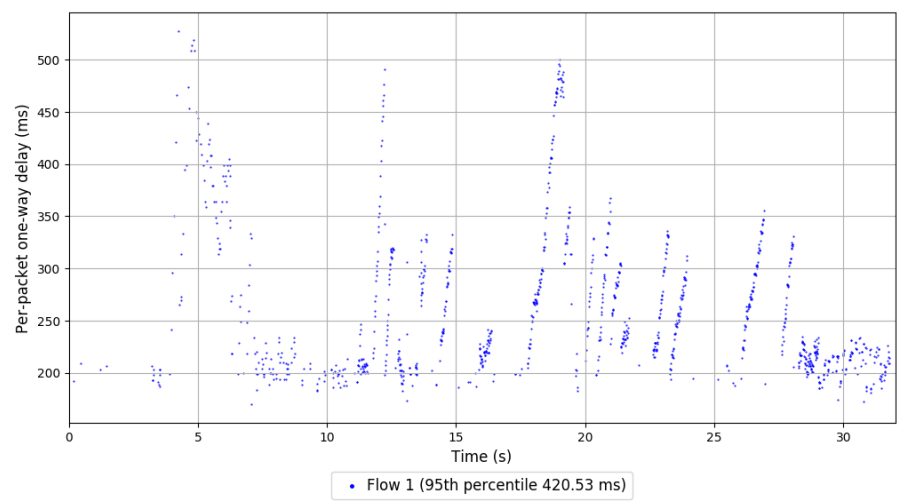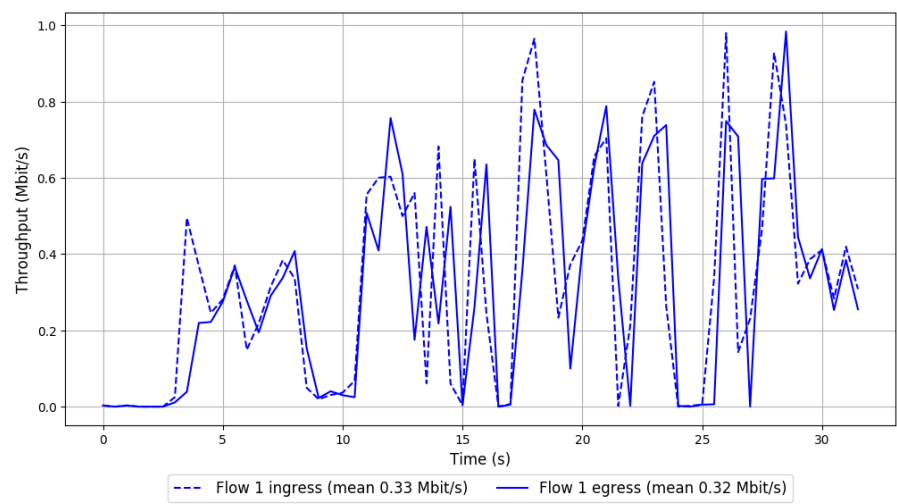
Run 1: Report of WebRTC media — Data Link

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

Flow 1 (95th percentile 420.53 ms)

```
Run 2: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:45:41 +0000
End at: Sun, 06 Aug 2017 23:46:11 +0000
Local clock offset: 0.442 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:44 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 488.842 ms
Loss rate: 20.51%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 488.842 ms
Loss rate: 20.51%
```
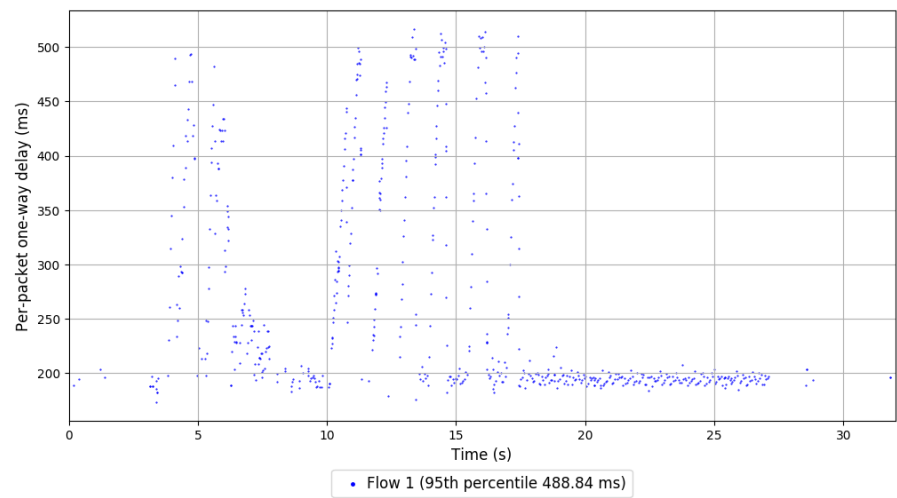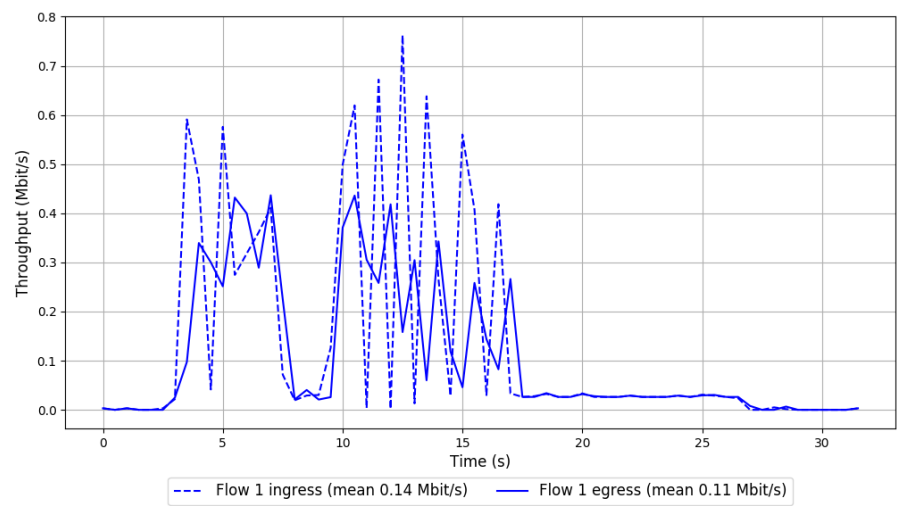
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: Mon, 07 Aug 2017 00:03:58 +0000
End at: Mon, 07 Aug 2017 00:04:28 +0000
Local clock offset: 0.147 ms
Remote clock offset: 0.052 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:07:44 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 466.294 ms
Loss rate: 7.06%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 466.294 ms
Loss rate: 7.06%
```

Run 3: Report of WebRTC media — Data Link