Pantheon Report

Generated at 2018-04-24 12:34:47 (UTC).

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

Repeated the test of 16 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

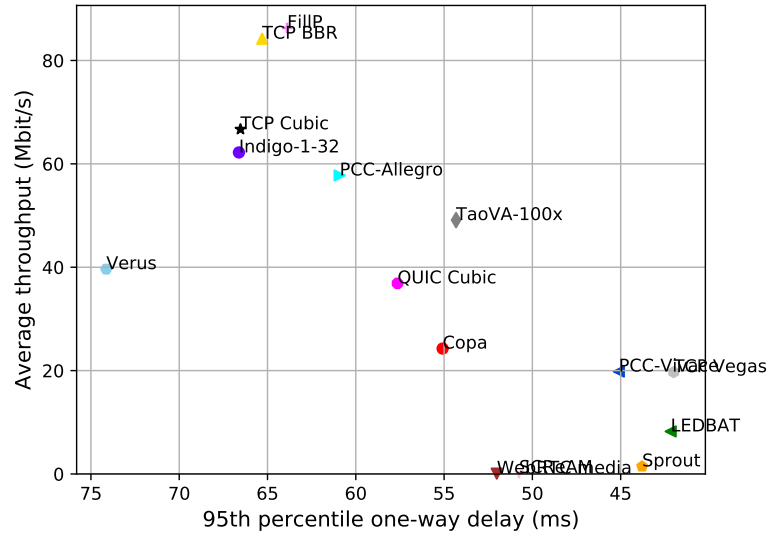Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

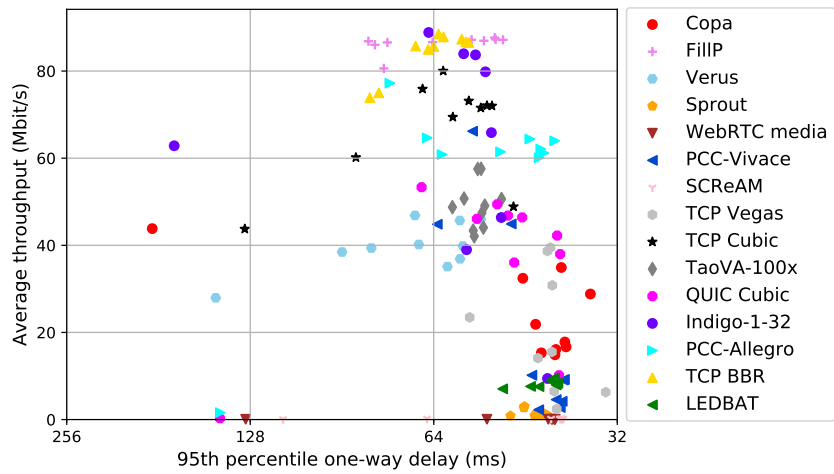NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 114e807ac1bad7b85168ceb1f8a969063ee6c12c
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ d223989828276fa83a807da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822eee5d0031620f4bebf38aedc5581
```

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	84.21	65.30	0.91
TCP Cubic	10	66.69	66.53	0.87
LEDBAT	9	8.23	42.17	1.34
PCC-Allegro	10	57.75	60.91	2.80
QUIC Cubic	10	36.88	57.64	2.78
SCReAM	9	0.21	50.76	0.71
WebRTC media	9	0.07	52.02	0.00
Sprout	10	1.47	43.79	0.88
TaoVA-100x	10	49.12	54.32	1.12
TCP Vegas	9	19.70	42.00	0.61
Verus	10	39.63	74.13	1.05
Copa	10	24.26	55.08	3.44
FillP	10	86.29	63.89	1.41
Indigo-1-32	9	62.21	66.62	2.63
PCC-Vivace	10	19.82	45.11	1.20
PCC-Expr	0	N/A	N/A	N/A

```
Run 1: Statistics of TCP BBR

Start at: 2018-04-24 05:20:56
End at: 2018-04-24 05:21:26
Local clock offset: -4.109 ms
Remote clock offset: -1.193 ms


# Below is generated by plot.py at 2018-04-24 12:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.70 Mbit/s
95th percentile per-packet one-way delay: 56.701 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 86.70 Mbit/s
95th percentile per-packet one-way delay: 56.701 ms
Loss rate: 0.83%
```
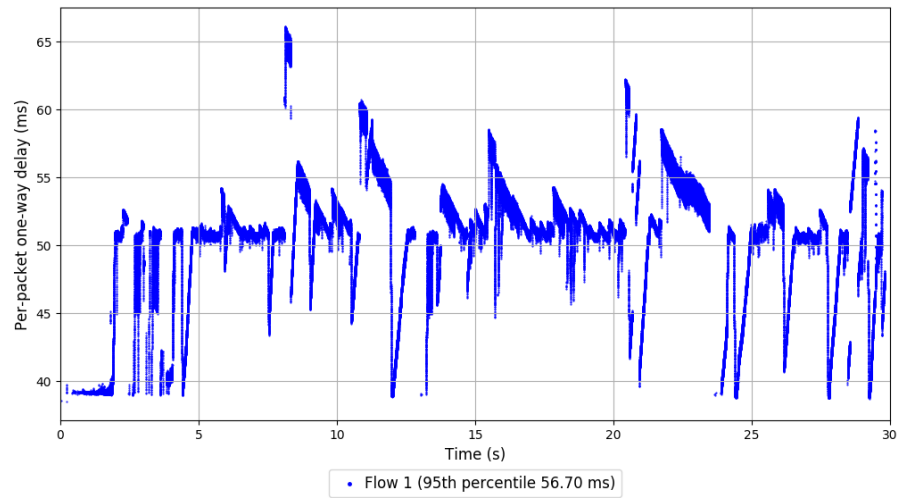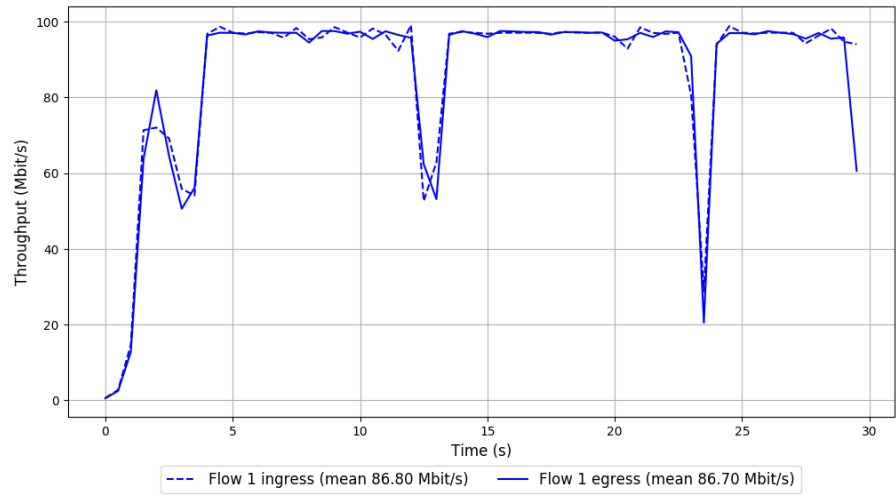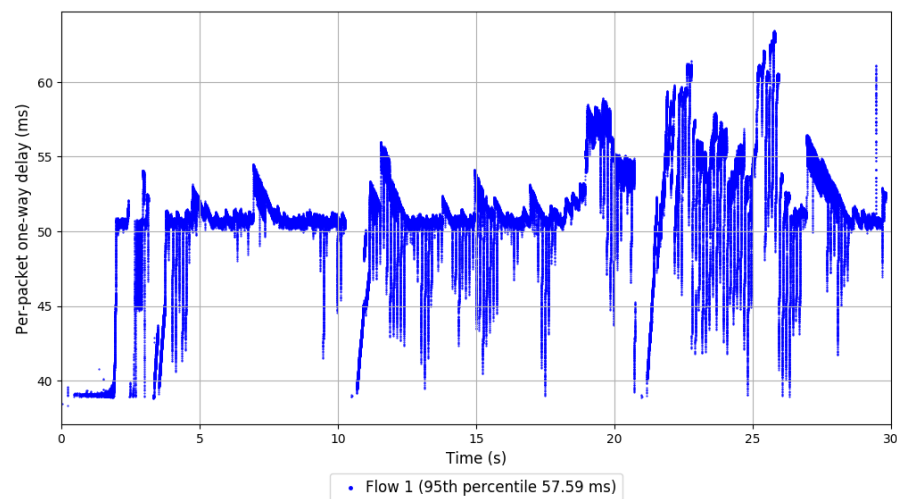
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-04-24 05:42:11
End at: 2018-04-24 05:42:41
Local clock offset: -0.281 ms
Remote clock offset: 1.344 ms


# Below is generated by plot.py at 2018-04-24 12:23:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.31 Mbit/s
95th percentile per-packet one-way delay: 57.586 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 87.31 Mbit/s
95th percentile per-packet one-way delay: 57.586 ms
Loss rate: 0.88%
```
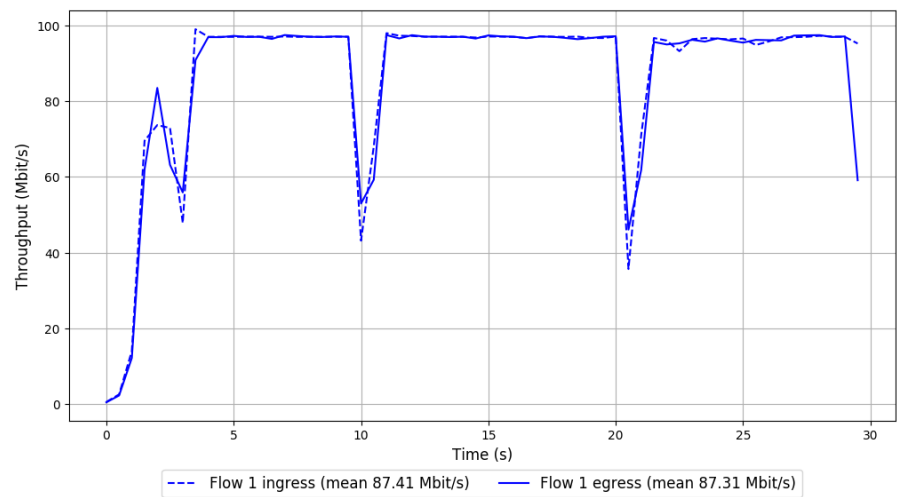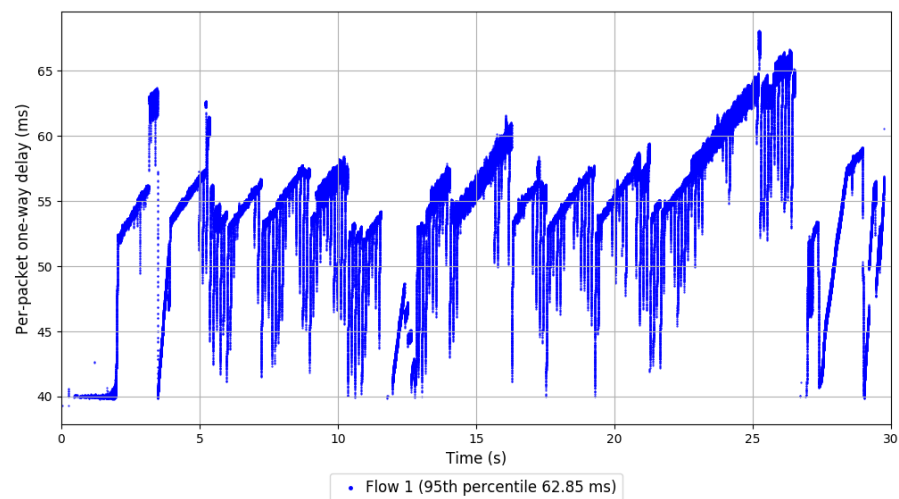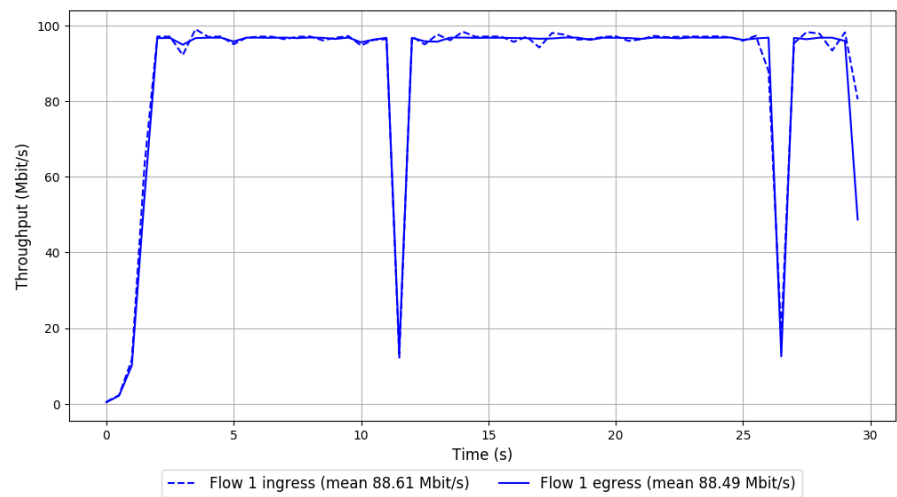
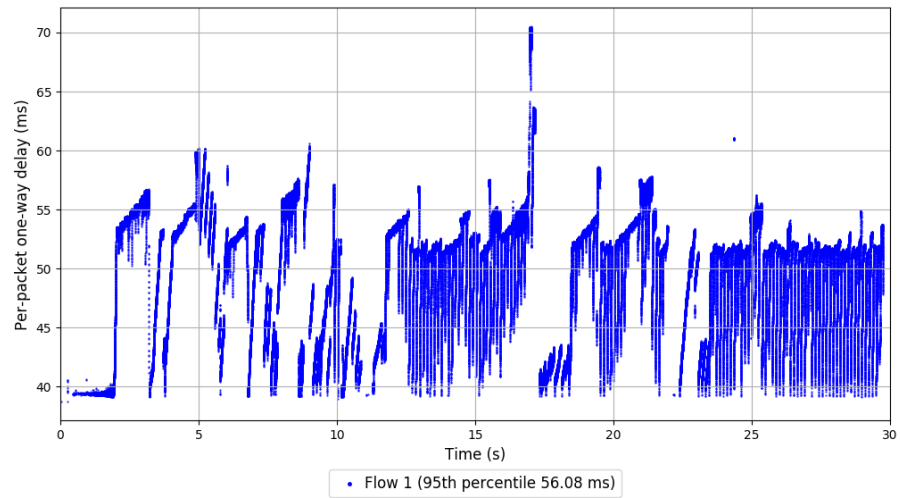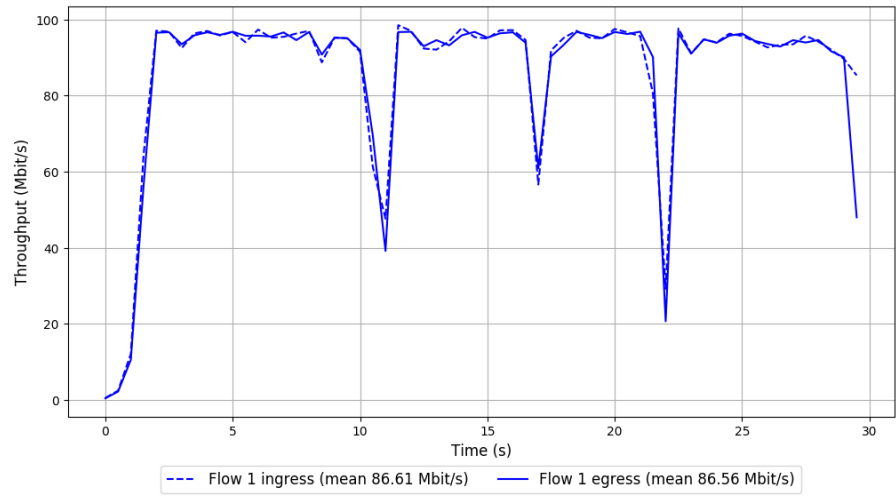# Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 87.41 Mbit/s)   Flow 1 egress (mean 87.31 Mbit/s)

• Flow 1 (95th percentile 57.59 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-04-24 06:03:32
End at: 2018-04-24 06:04:02
Local clock offset: 2.084 ms
Remote clock offset: 30.32 ms


# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.49 Mbit/s
95th percentile per-packet one-way delay: 62.854 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 88.49 Mbit/s
95th percentile per-packet one-way delay: 62.854 ms
Loss rate: 0.79%
```

Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 88.61 Mbit/s)   Flow 1 egress (mean 88.49 Mbit/s)

Flow 1 (95th percentile 62.85 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-04-24 06:24:45
End at: 2018-04-24 06:25:15
Local clock offset: 3.156 ms
Remote clock offset: -11.776 ms

# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.56 Mbit/s
95th percentile per-packet one-way delay: 56.081 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 86.56 Mbit/s
95th percentile per-packet one-way delay: 56.081 ms
Loss rate: 0.90%
```
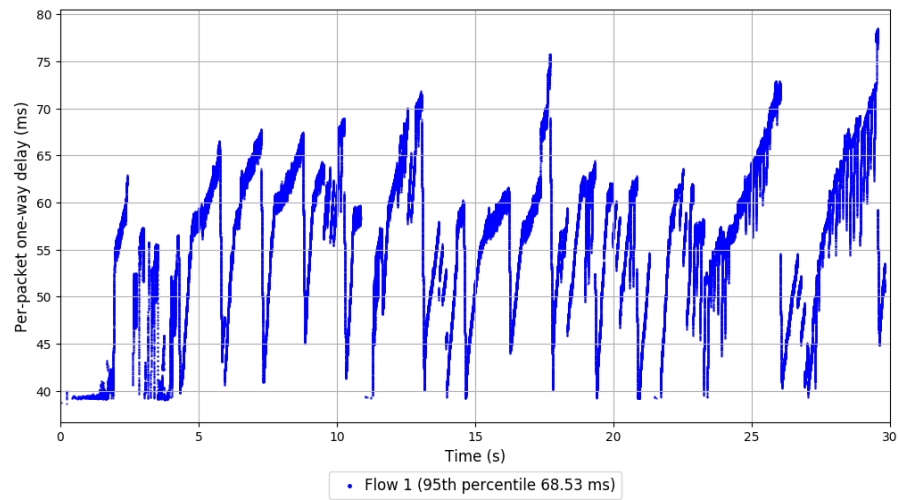
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-04-24 06:46:04
End at: 2018-04-24 06:46:34
Local clock offset: 3.965 ms
Remote clock offset: 8.763 ms


# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.73 Mbit/s
95th percentile per-packet one-way delay: 68.531 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 85.73 Mbit/s
95th percentile per-packet one-way delay: 68.531 ms
Loss rate: 0.86%
```
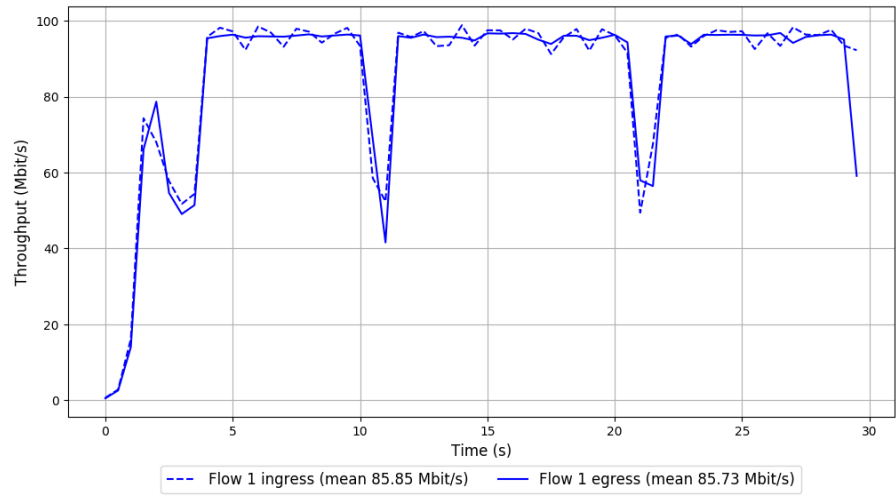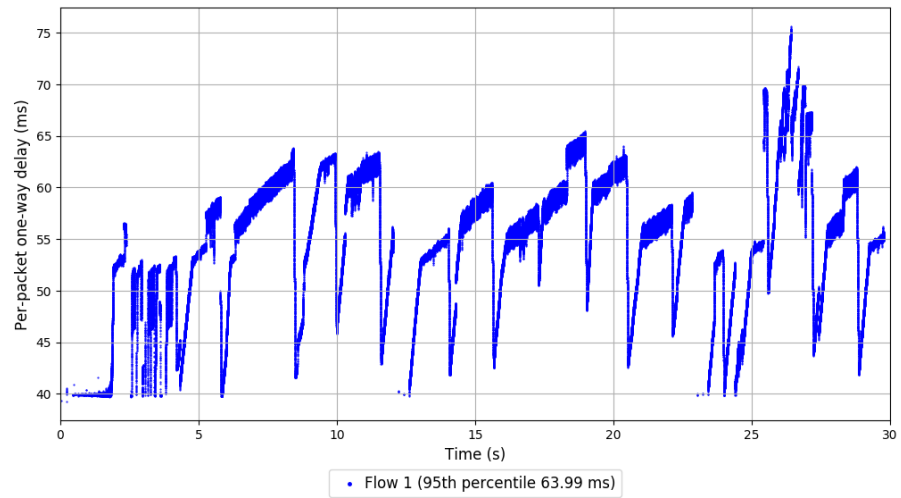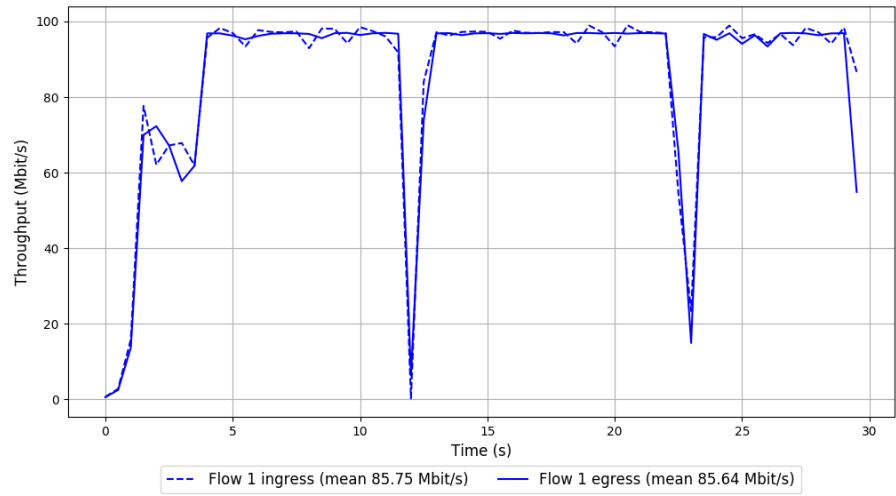
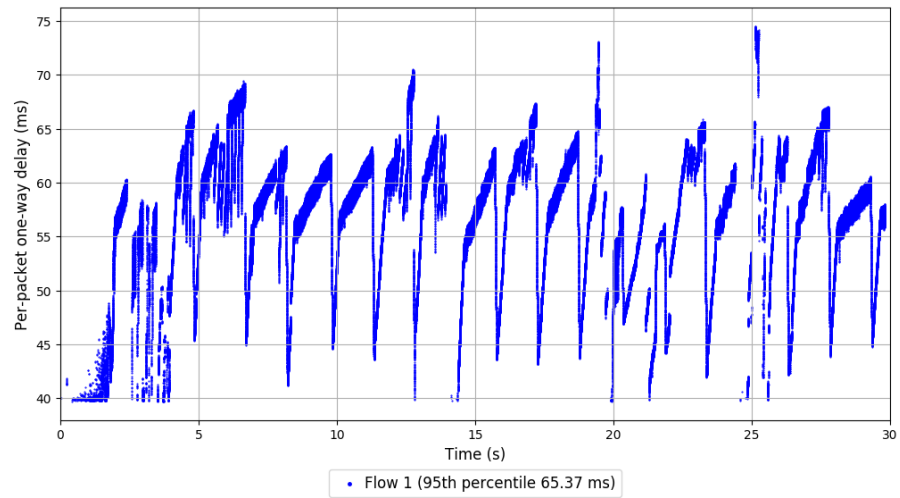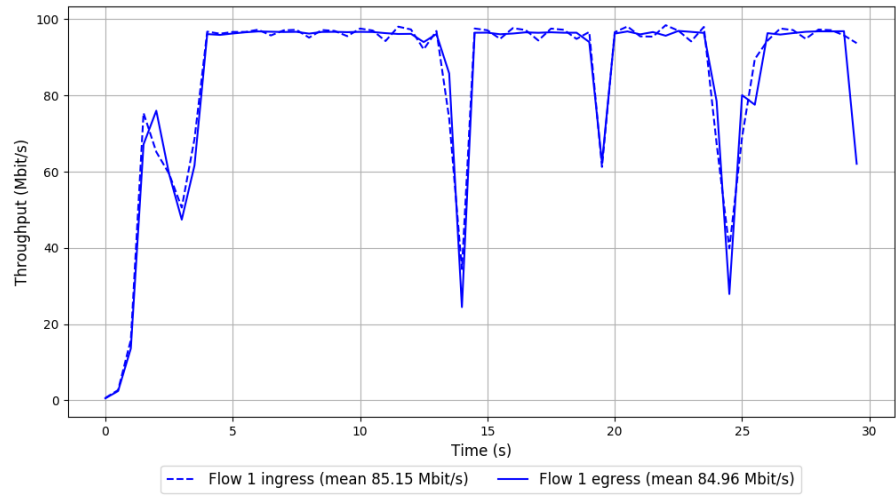# Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.85 Mbit/s)   Flow 1 egress (mean 85.73 Mbit/s)

Flow 1 (95th percentile 68.53 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-04-24 07:07:19
End at: 2018-04-24 07:07:49
Local clock offset: 3.309 ms
Remote clock offset: 43.858 ms


# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.64 Mbit/s
95th percentile per-packet one-way delay: 63.992 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 85.64 Mbit/s
95th percentile per-packet one-way delay: 63.992 ms
Loss rate: 0.83%
```

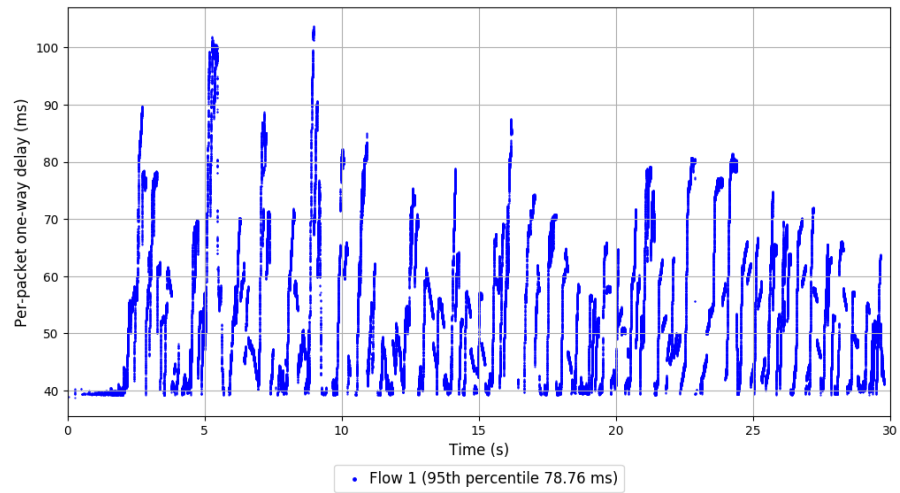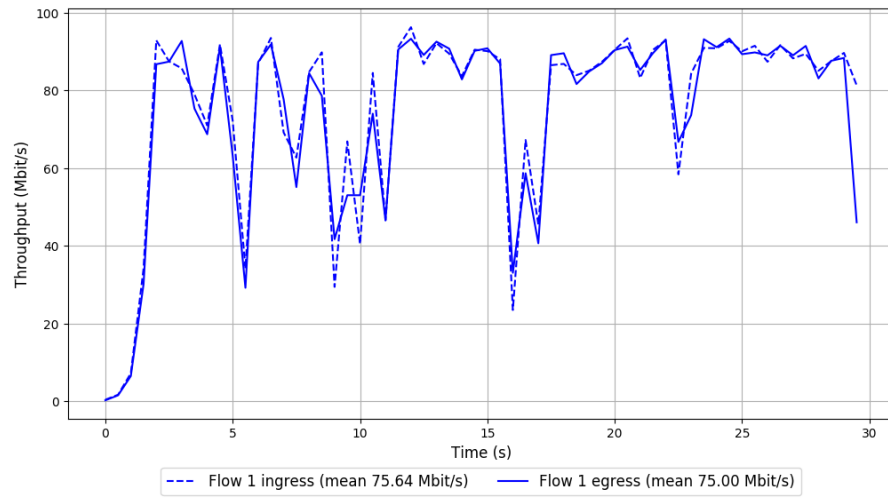Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.75 Mbit/s) Flow 1 egress (mean 85.64 Mbit/s)

Flow 1 (95th percentile 63.99 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-04-24 07:34:45
End at: 2018-04-24 07:35:15
Local clock offset: -3.176 ms
Remote clock offset: 11.226 ms


# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 65.369 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 65.369 ms
Loss rate: 0.89%
```
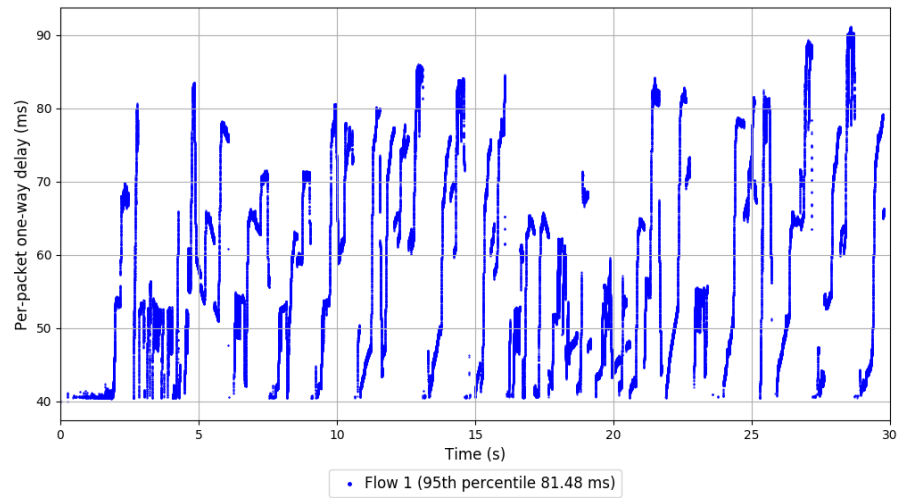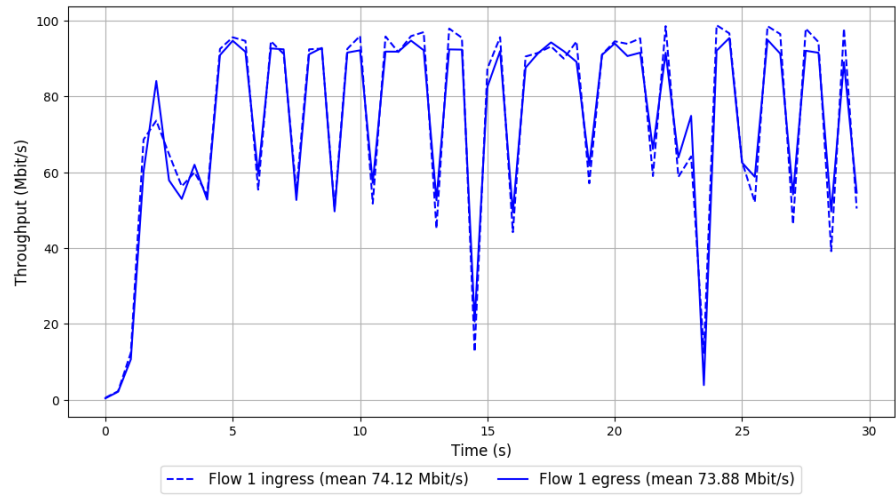
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.15 Mbit/s)   Flow 1 egress (mean 84.96 Mbit/s)

Flow 1 (95th percentile 65.37 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2018-04-24 07:55:59
End at: 2018-04-24 07:56:29
Local clock offset: -5.473 ms
Remote clock offset: 27.013 ms


# Below is generated by plot.py at 2018-04-24 12:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.00 Mbit/s
95th percentile per-packet one-way delay: 78.762 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 75.00 Mbit/s
95th percentile per-packet one-way delay: 78.762 ms
Loss rate: 1.66%
```
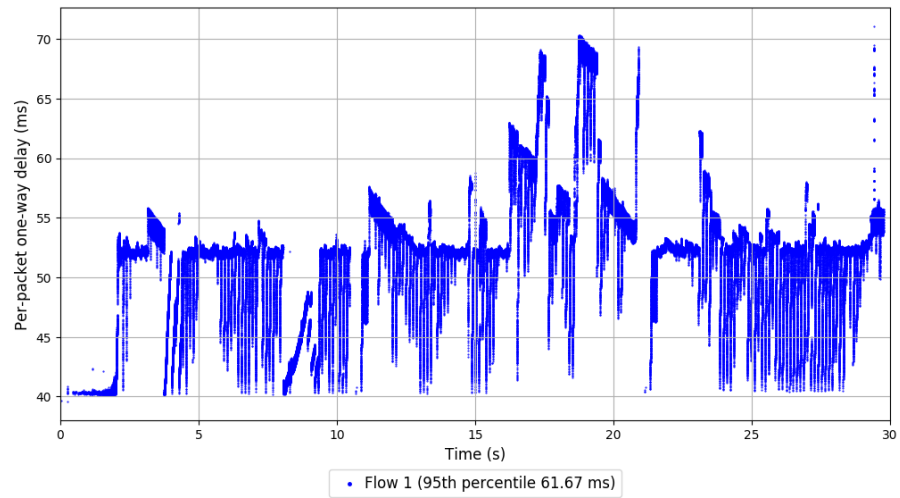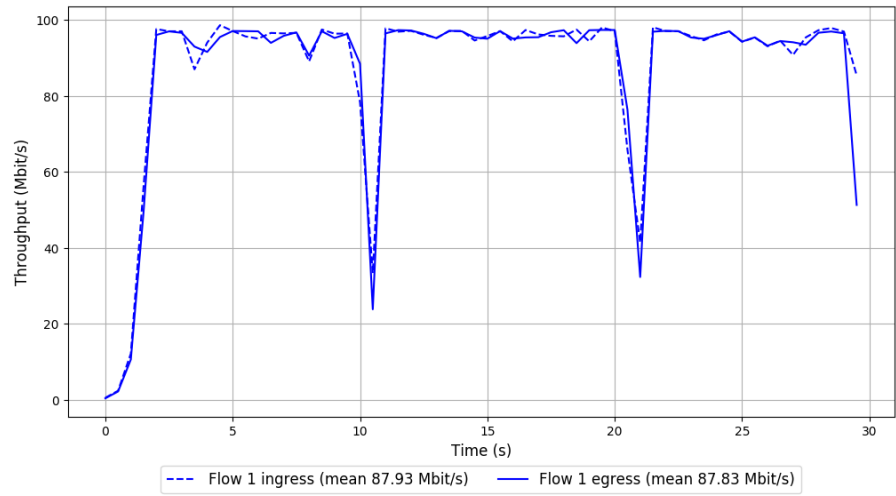
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-04-24 08:17:30
End at: 2018-04-24 08:18:00
Local clock offset: -1.352 ms
Remote clock offset: 31.747 ms


# Below is generated by plot.py at 2018-04-24 12:24:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.88 Mbit/s
95th percentile per-packet one-way delay: 81.479 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 73.88 Mbit/s
95th percentile per-packet one-way delay: 81.479 ms
Loss rate: 0.62%
```
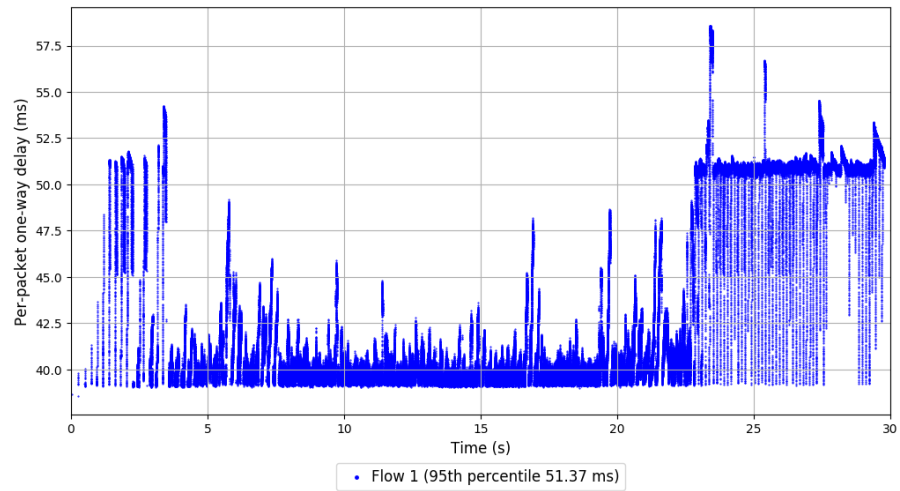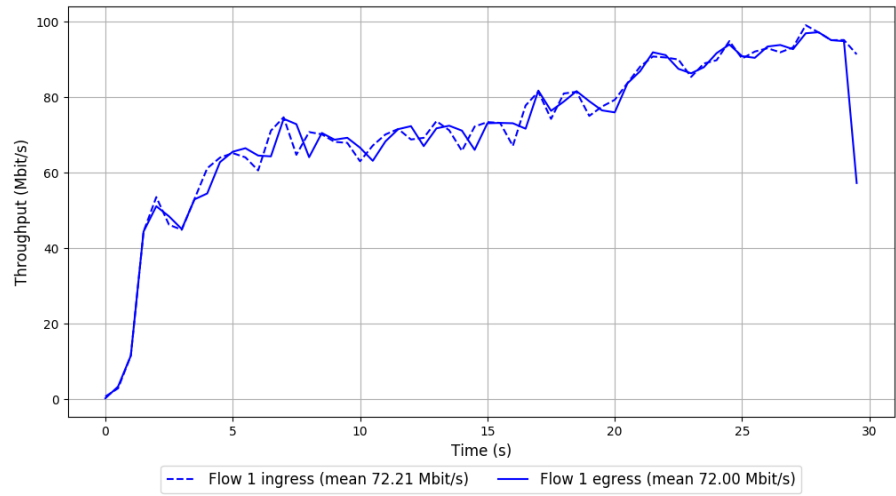
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 74.12 Mbit/s)   Flow 1 egress (mean 73.88 Mbit/s)

Flow 1 (95th percentile 81.48 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-04-24 08:39:26
End at: 2018-04-24 08:39:56
Local clock offset: -3.192 ms
Remote clock offset: 21.288 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.83 Mbit/s
95th percentile per-packet one-way delay: 61.675 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 87.83 Mbit/s
95th percentile per-packet one-way delay: 61.675 ms
Loss rate: 0.85%
```

Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 87.93 Mbit/s) --- Flow 1 egress (mean 87.83 Mbit/s)

· Flow 1 (95th percentile 61.67 ms)

23

```
Run 1: Statistics of TCP Cubic

Start at: 2018-04-24 05:19:38
End at: 2018-04-24 05:20:08
Local clock offset: -3.91 ms
Remote clock offset: -1.215 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.00 Mbit/s
95th percentile per-packet one-way delay: 51.366 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 72.00 Mbit/s
95th percentile per-packet one-way delay: 51.366 ms
Loss rate: 1.02%
```
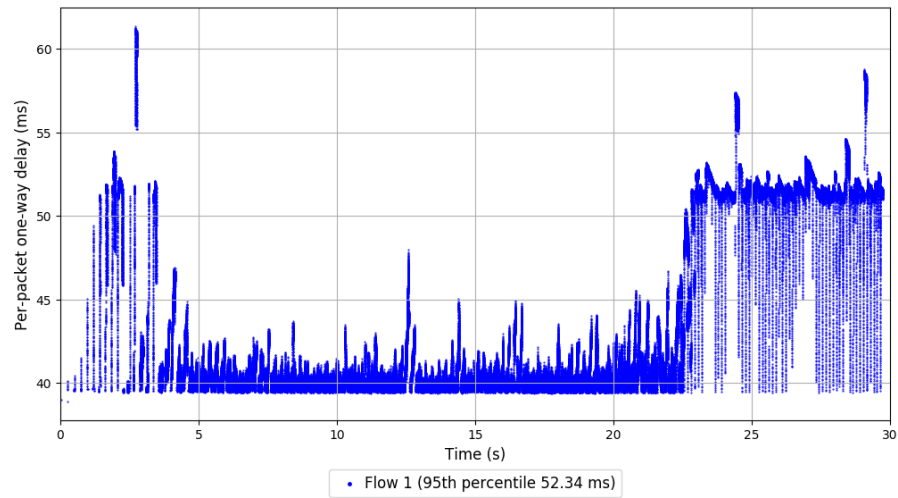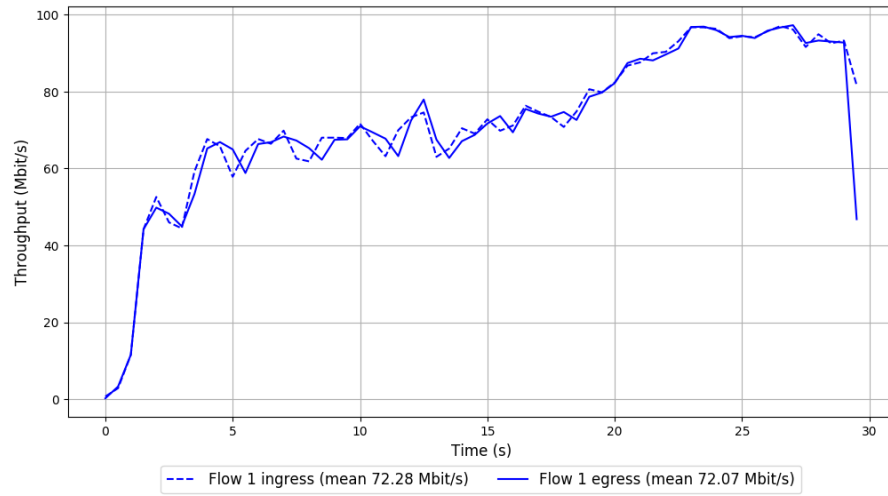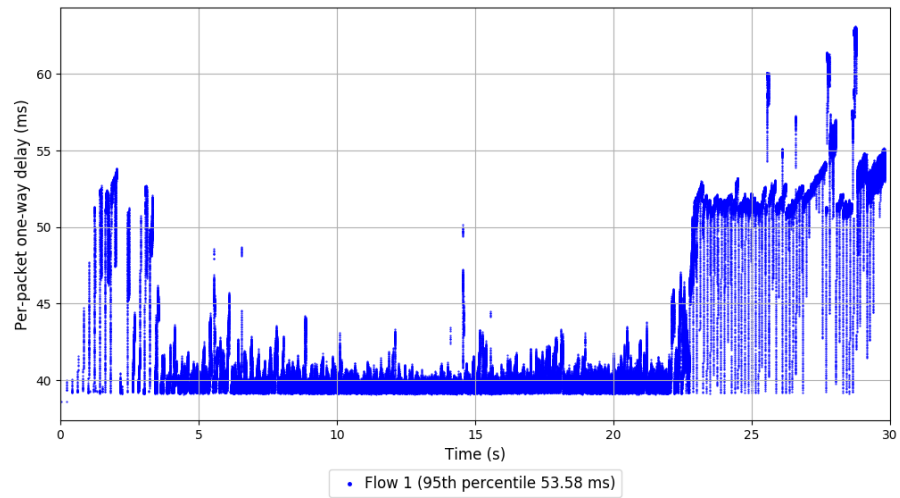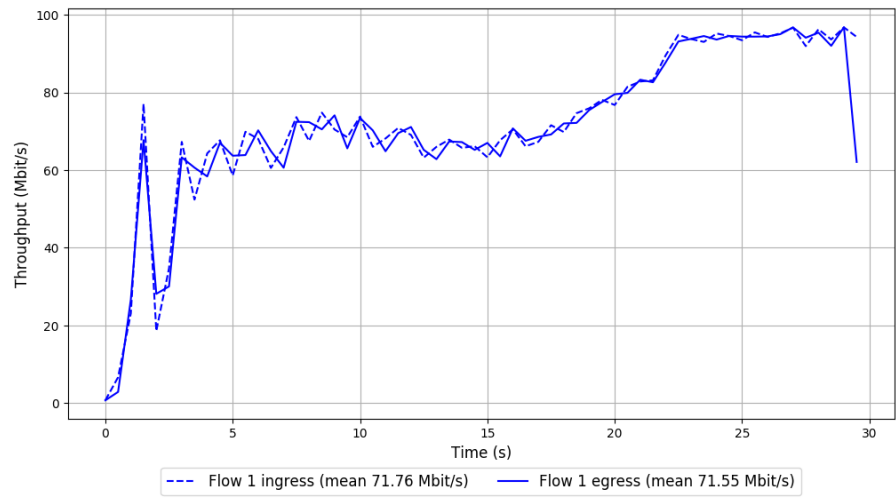
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 72.21 Mbit/s)   Flow 1 egress (mean 72.00 Mbit/s)

Flow 1 (95th percentile 51.37 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-04-24 05:40:53
End at: 2018-04-24 05:41:23
Local clock offset: -0.587 ms
Remote clock offset: 1.265 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.07 Mbit/s
95th percentile per-packet one-way delay: 52.342 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 72.07 Mbit/s
95th percentile per-packet one-way delay: 52.342 ms
Loss rate: 1.03%
```
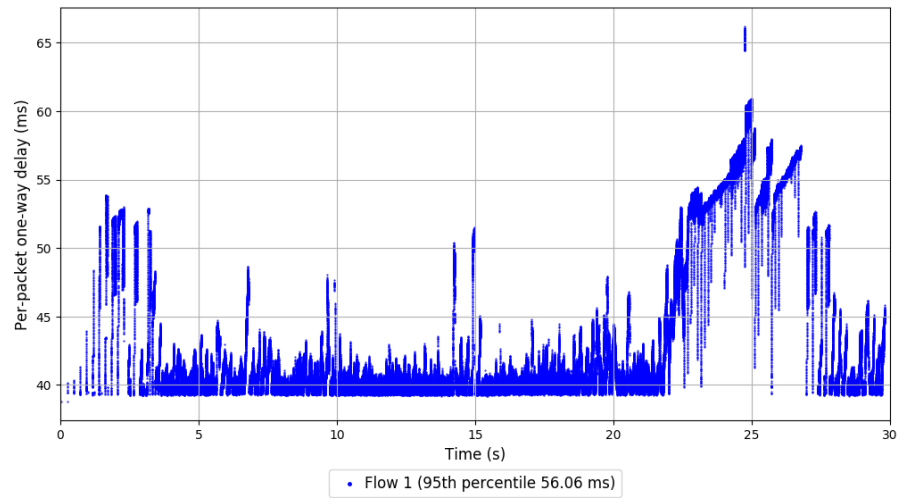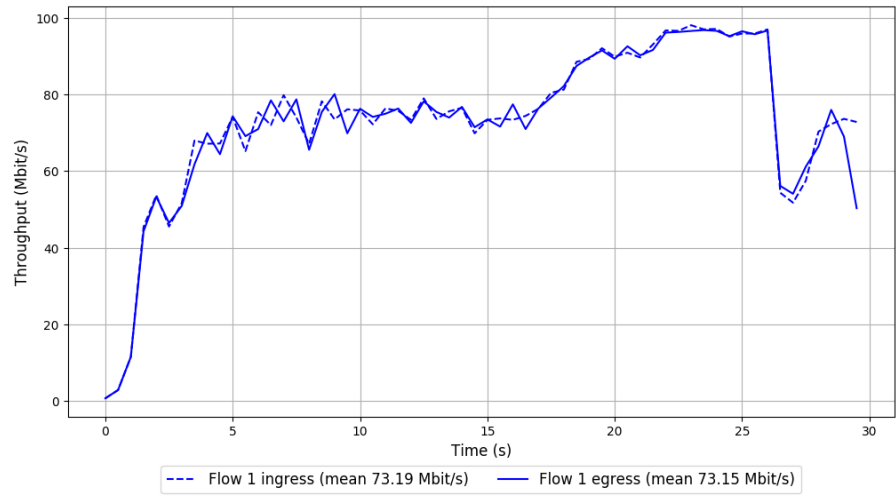
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-04-24 06:02:16
End at: 2018-04-24 06:02:46
Local clock offset: 1.787 ms
Remote clock offset: 30.354 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.55 Mbit/s
95th percentile per-packet one-way delay: 53.576 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 71.55 Mbit/s
95th percentile per-packet one-way delay: 53.576 ms
Loss rate: 0.99%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 71.76 Mbit/s) —— Flow 1 egress (mean 71.55 Mbit/s)

• Flow 1 (95th percentile 53.58 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-04-24 06:23:28
End at: 2018-04-24 06:23:58
Local clock offset: 2.86 ms
Remote clock offset: -11.915 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.15 Mbit/s
95th percentile per-packet one-way delay: 56.063 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 73.15 Mbit/s
95th percentile per-packet one-way delay: 56.063 ms
Loss rate: 0.69%
```
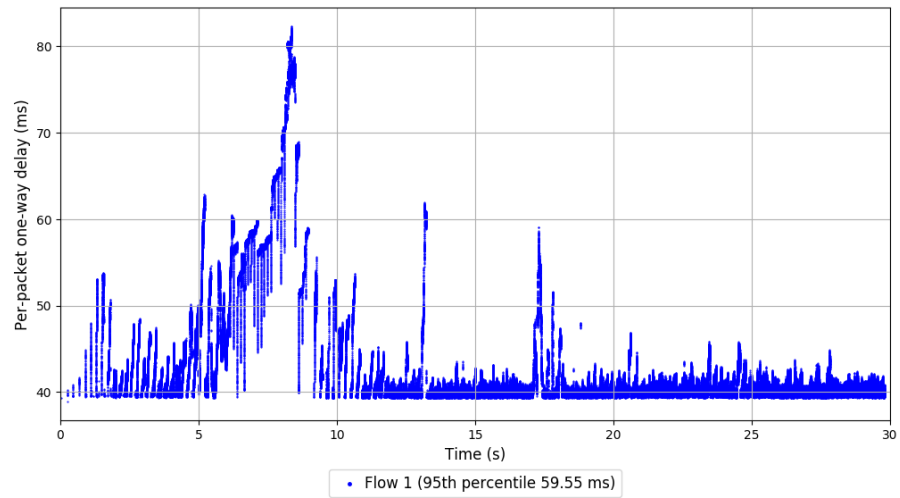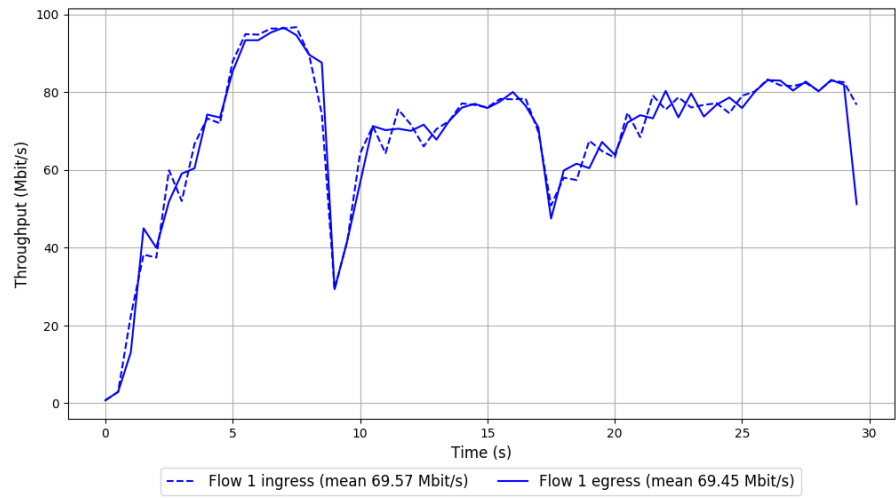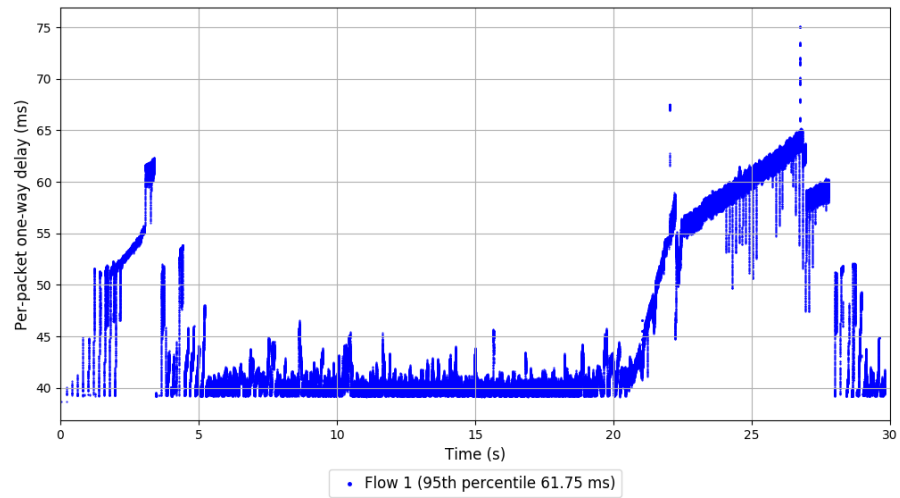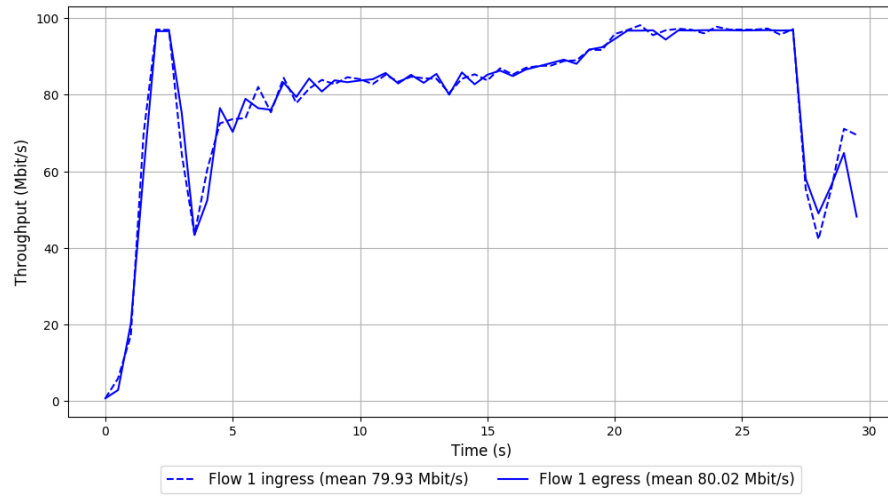
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 73.19 Mbit/s)   Flow 1 egress (mean 73.15 Mbit/s)

Flow 1 (95th percentile 56.06 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-04-24 06:44:47
End at: 2018-04-24 06:45:17
Local clock offset: 3.944 ms
Remote clock offset: 8.824 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.45 Mbit/s
95th percentile per-packet one-way delay: 59.553 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 69.45 Mbit/s
95th percentile per-packet one-way delay: 59.553 ms
Loss rate: 0.84%
```
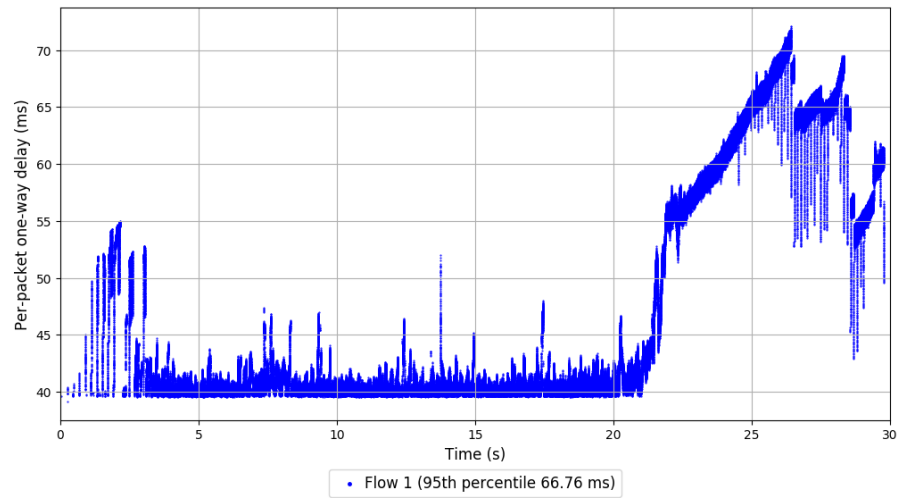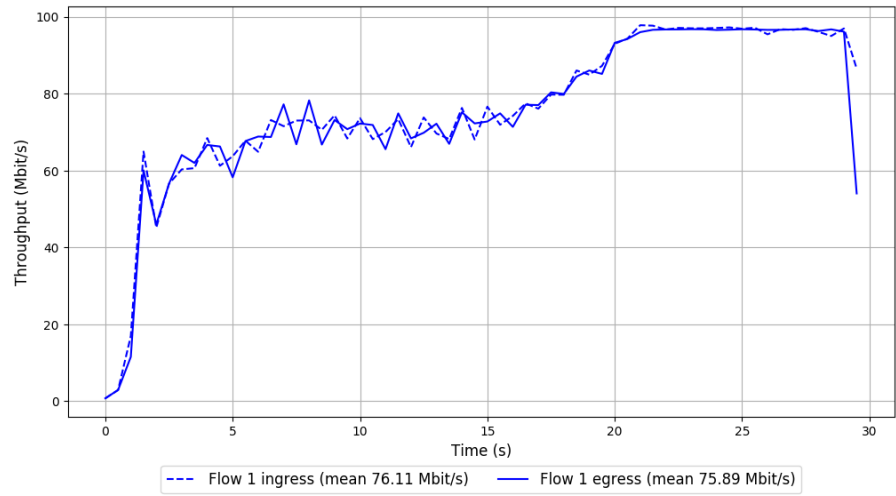
Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2018-04-24 07:06:02
End at: 2018-04-24 07:06:32
Local clock offset: 3.018 ms
Remote clock offset: 43.725 ms


# Below is generated by plot.py at 2018-04-24 12:24:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.02 Mbit/s
95th percentile per-packet one-way delay: 61.752 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 80.02 Mbit/s
95th percentile per-packet one-way delay: 61.752 ms
Loss rate: 0.60%
```
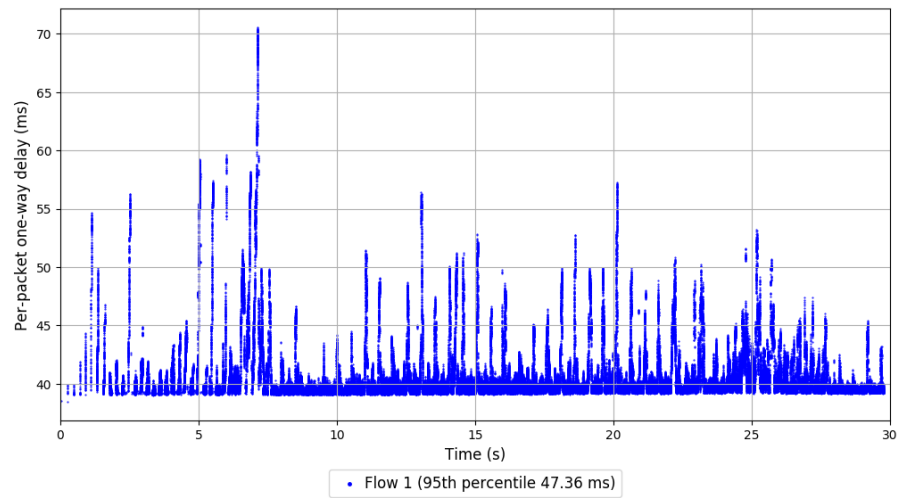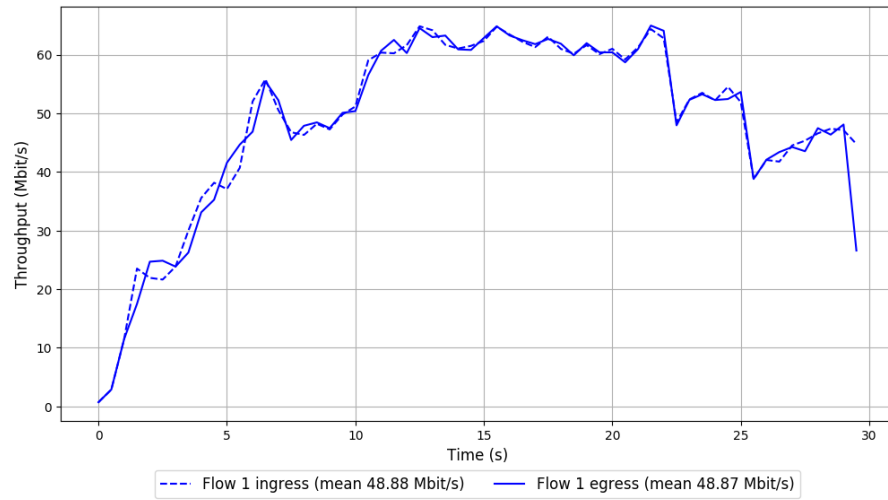
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 79.93 Mbit/s) --- Flow 1 egress (mean 80.02 Mbit/s)

• Flow 1 (95th percentile 61.75 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-04-24 07:33:28
End at: 2018-04-24 07:33:58
Local clock offset: -2.962 ms
Remote clock offset: 11.515 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 66.761 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 66.761 ms
Loss rate: 0.97%
```
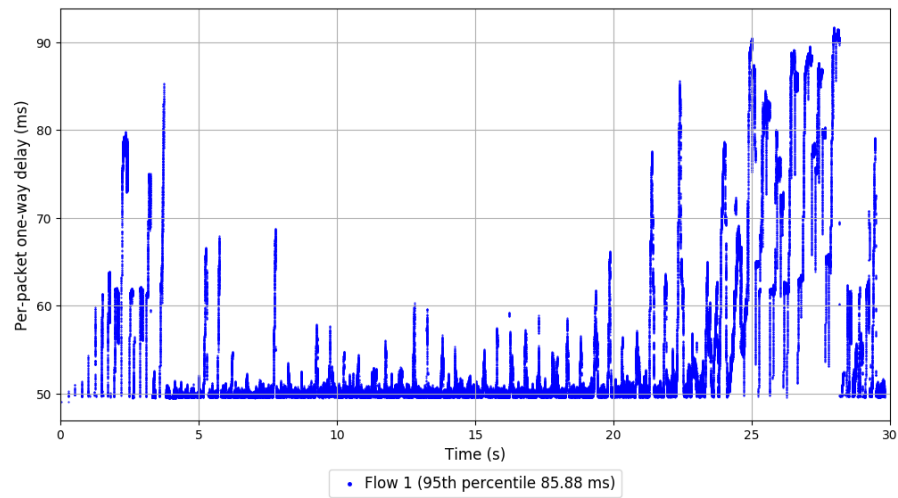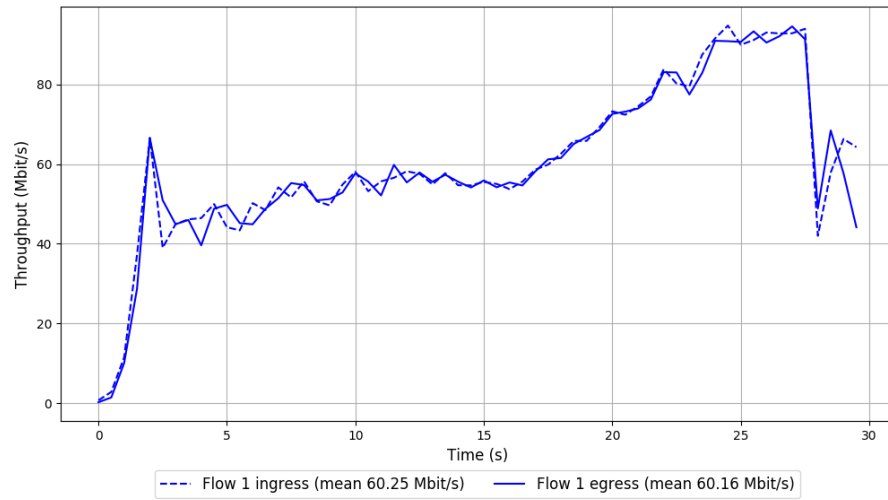
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 76.11 Mbit/s)   Flow 1 egress (mean 75.89 Mbit/s)

Flow 1 (95th percentile 66.76 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-04-24 07:54:42
End at: 2018-04-24 07:55:12
Local clock offset: -6.234 ms
Remote clock offset: 26.095 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 47.356 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 47.356 ms
Loss rate: 0.77%
```
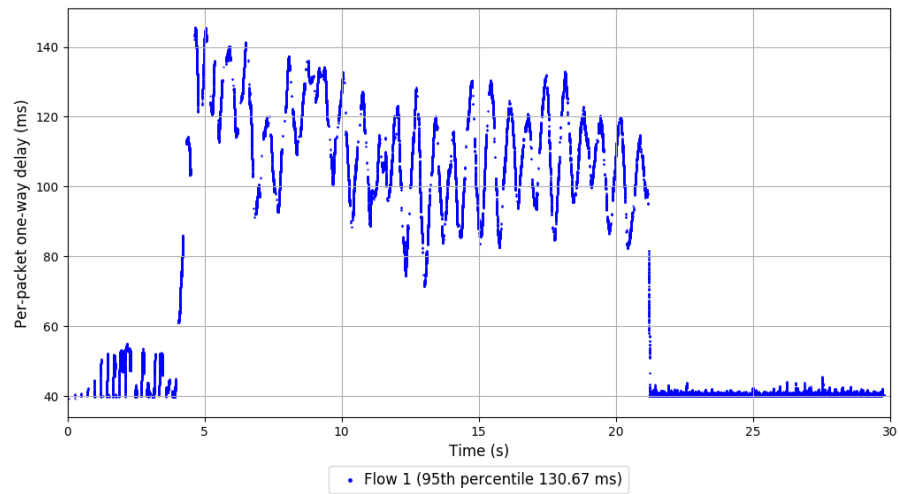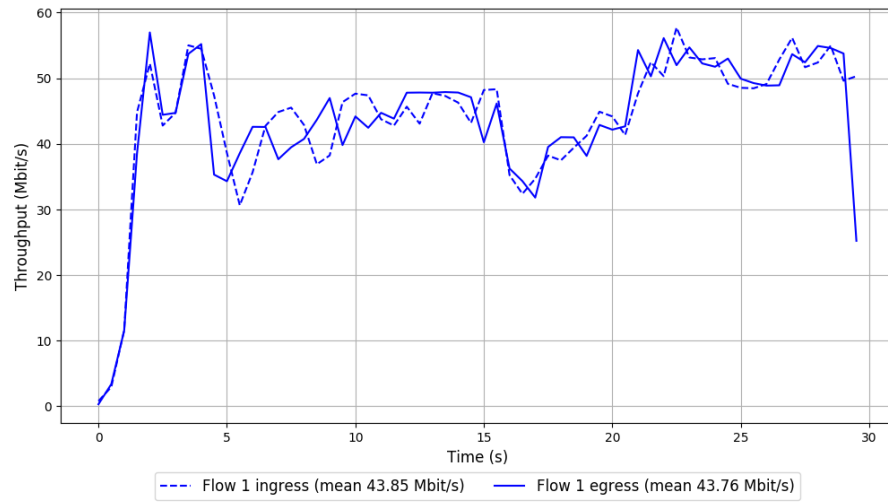
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 48.88 Mbit/s)   Flow 1 egress (mean 48.87 Mbit/s)

Flow 1 (95th percentile 47.36 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-04-24 08:16:12
End at: 2018-04-24 08:16:42
Local clock offset: -1.545 ms
Remote clock offset: 22.449 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.16 Mbit/s
95th percentile per-packet one-way delay: 85.877 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 60.16 Mbit/s
95th percentile per-packet one-way delay: 85.877 ms
Loss rate: 0.81%
```
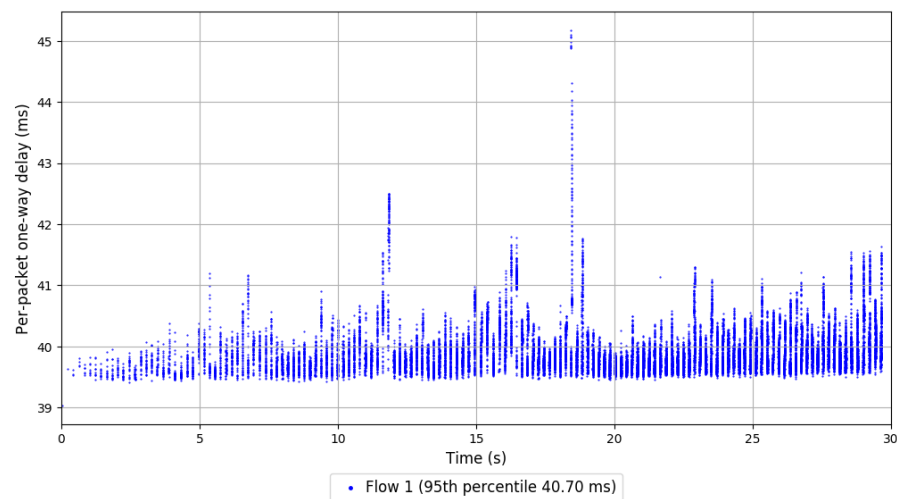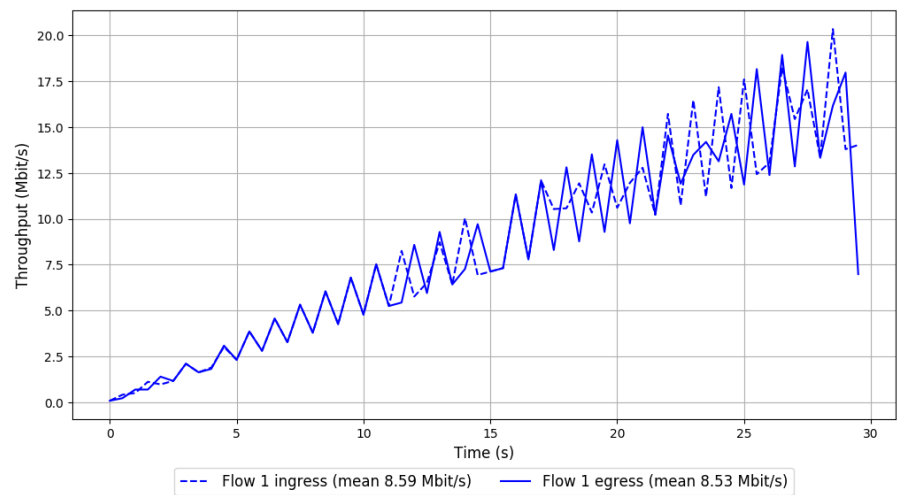
Run 9: Report of TCP Cubic — Data Link

```
Run 10: Statistics of TCP Cubic

Start at: 2018-04-24 08:38:07
End at: 2018-04-24 08:38:37
Local clock offset: -3.124 ms
Remote clock offset: 21.018 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.76 Mbit/s
95th percentile per-packet one-way delay: 130.667 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 43.76 Mbit/s
95th percentile per-packet one-way delay: 130.667 ms
Loss rate: 0.99%
```

Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 43.85 Mbit/s)   Flow 1 egress (mean 43.76 Mbit/s)

Flow 1 (95th percentile 130.67 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-04-24 05:15:59
End at: 2018-04-24 05:16:29
Local clock offset: -3.357 ms
Remote clock offset: -1.296 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 40.703 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 40.703 ms
Loss rate: 1.37%
```

Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-04-24 05:37:13
End at: 2018-04-24 05:37:43
Local clock offset: -1.337 ms
Remote clock offset: 0.644 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 40.300 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 40.300 ms
Loss rate: 1.42%
```
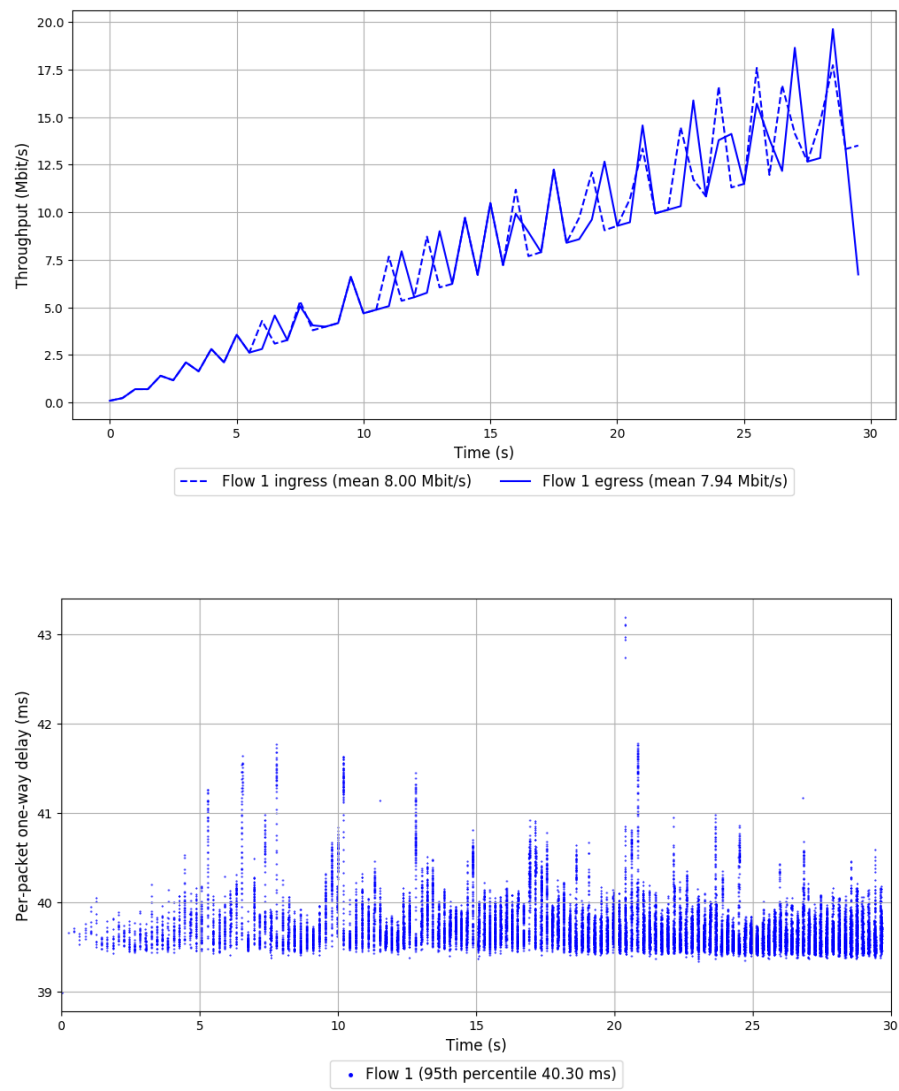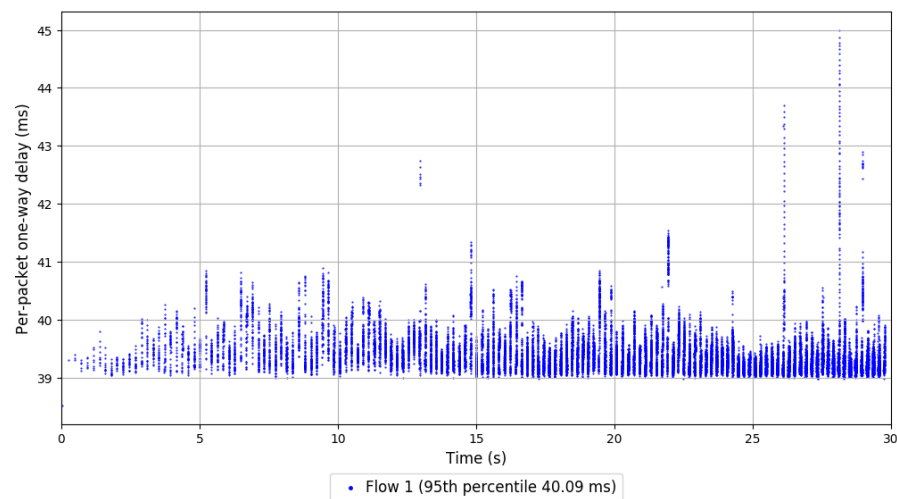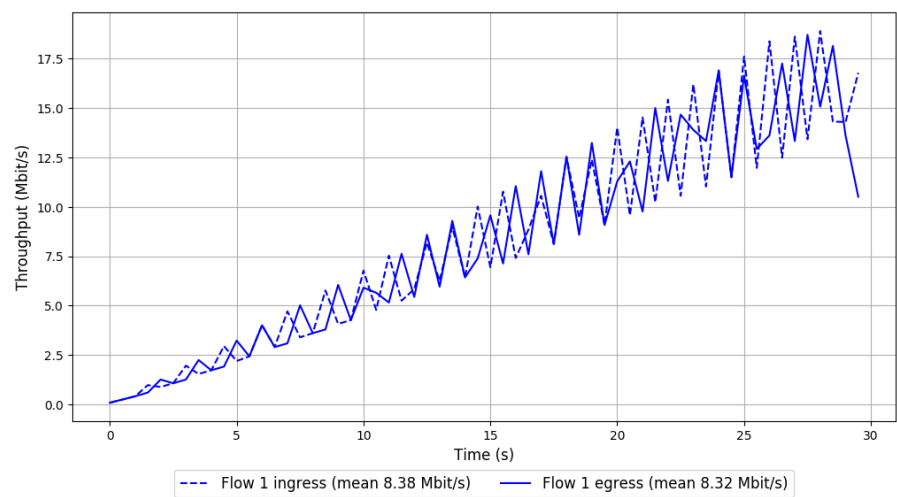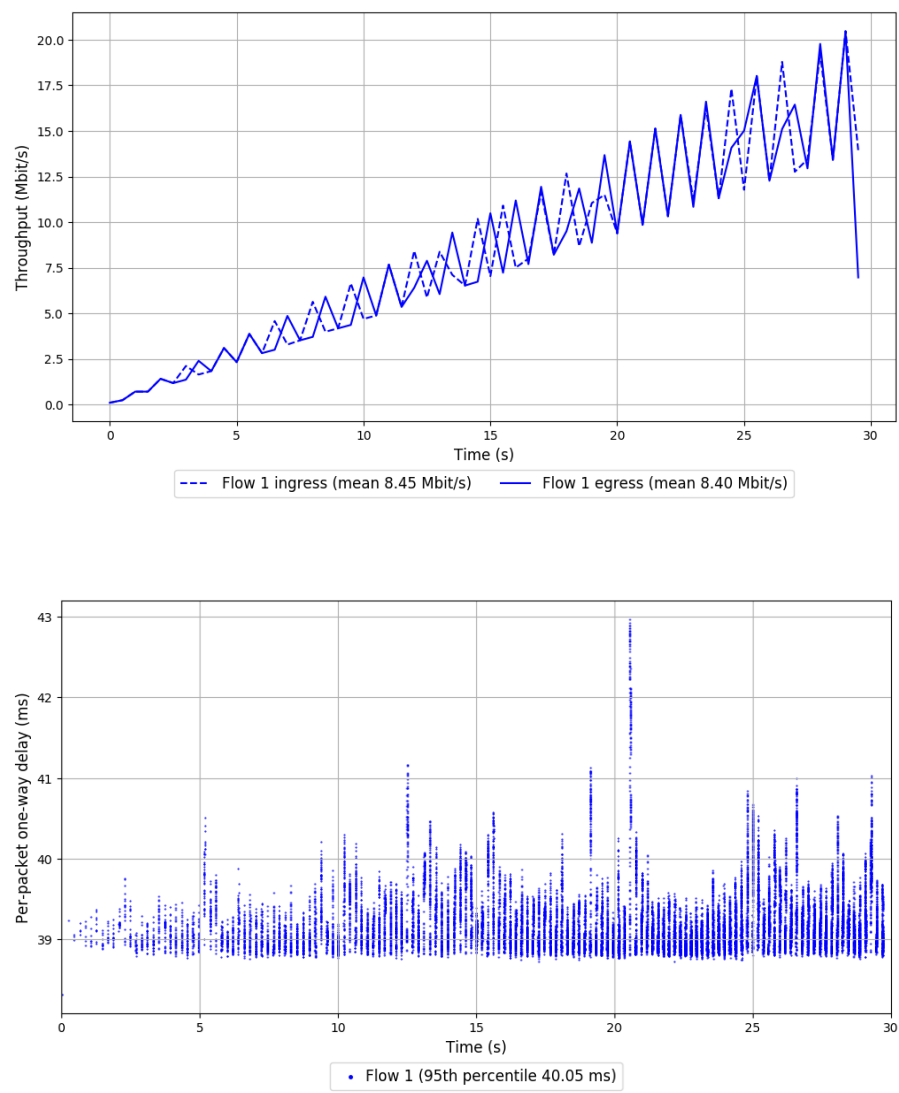
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-04-24 05:58:37
End at: 2018-04-24 05:59:07
Local clock offset: 1.756 ms
Remote clock offset: -1.364 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 40.091 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 40.091 ms
Loss rate: 1.38%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 8.38 Mbit/s)   Flow 1 egress (mean 8.32 Mbit/s)

• Flow 1 (95th percentile 40.09 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-04-24 06:19:50
End at: 2018-04-24 06:20:20
Local clock offset: 2.606 ms
Remote clock offset: -12.037 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 40.046 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 40.046 ms
Loss rate: 1.38%
```
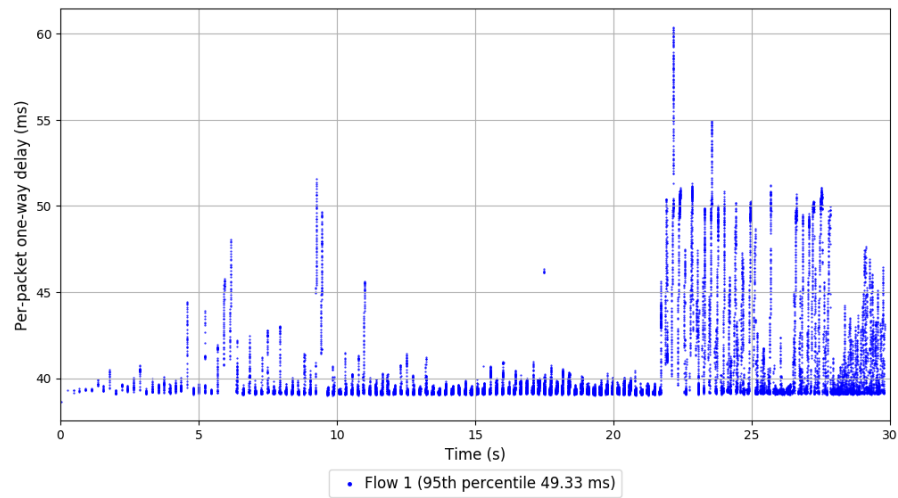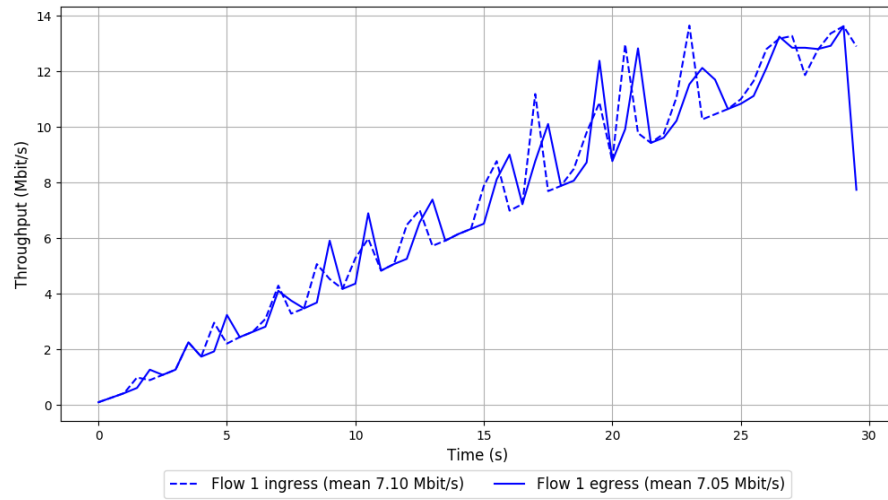
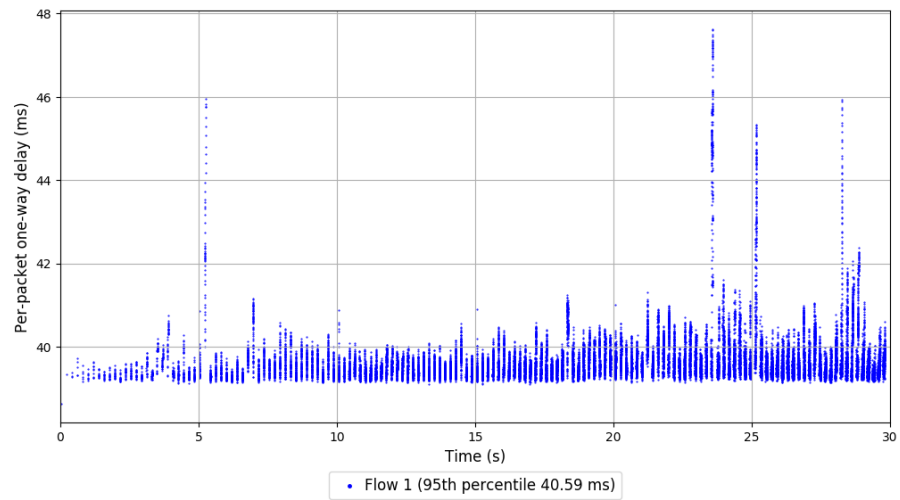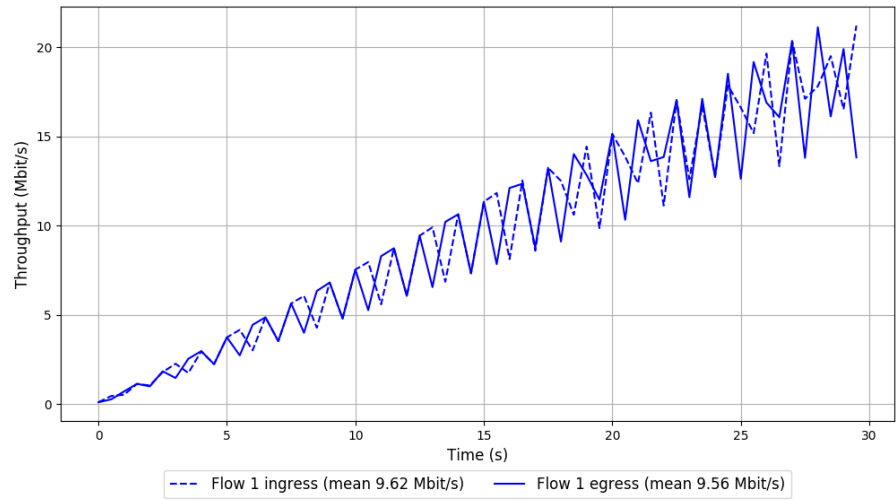Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 8.45 Mbit/s)   Flow 1 egress (mean 8.40 Mbit/s)

Flow 1 (95th percentile 40.05 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-04-24 06:41:08
End at: 2018-04-24 06:41:38
Local clock offset: 3.498 ms
Remote clock offset: 8.489 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 49.330 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 49.330 ms
Loss rate: 1.49%
```

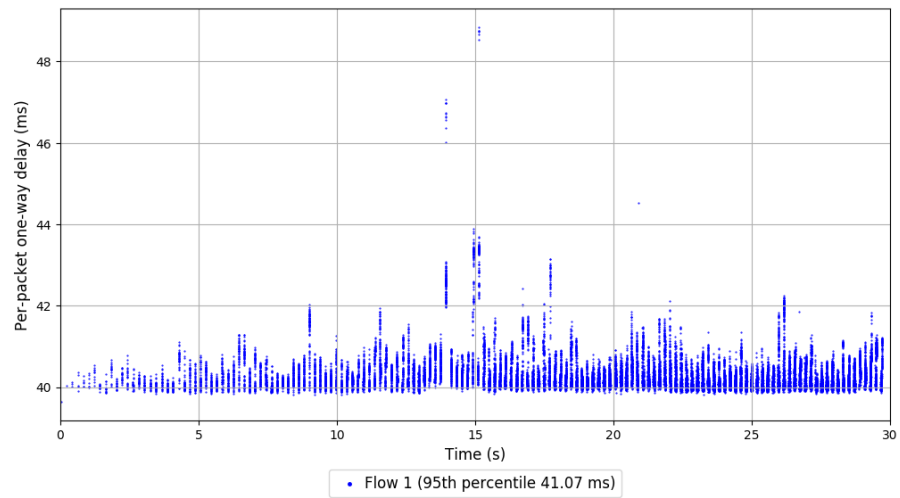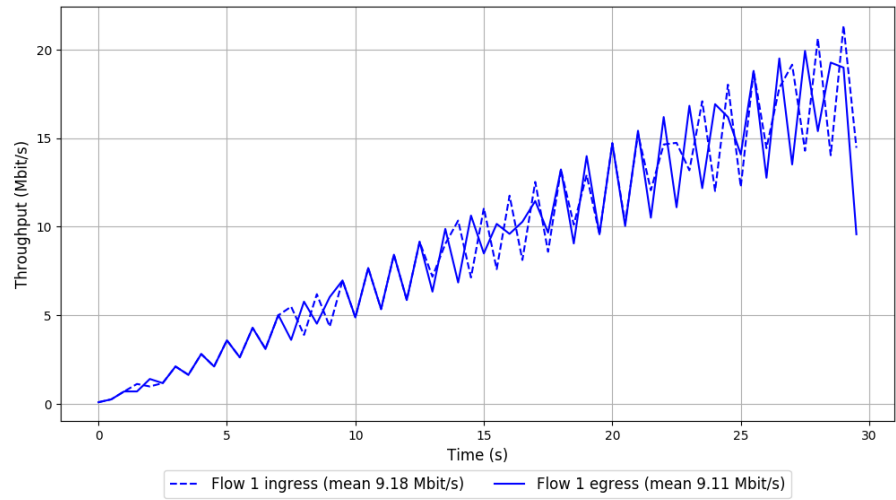Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2018-04-24 07:02:25
End at: 2018-04-24 07:02:55
Local clock offset: 3.059 ms
Remote clock offset: 43.534 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 1.28%
```

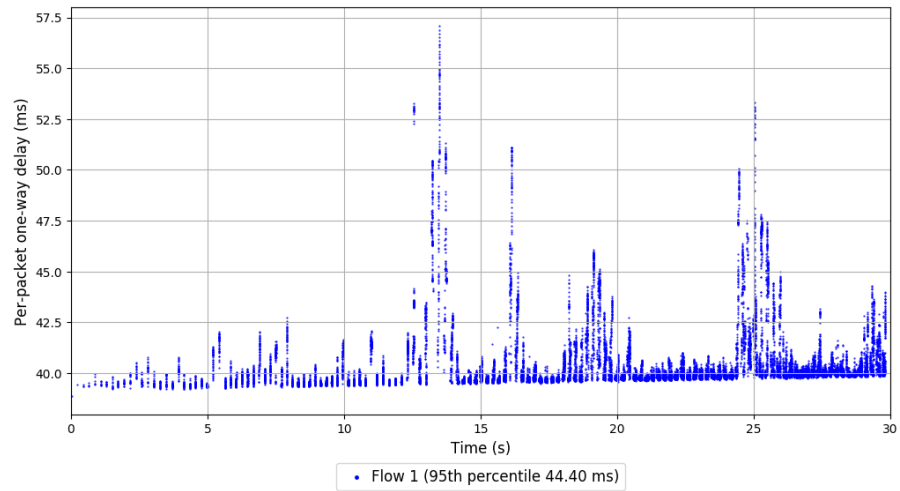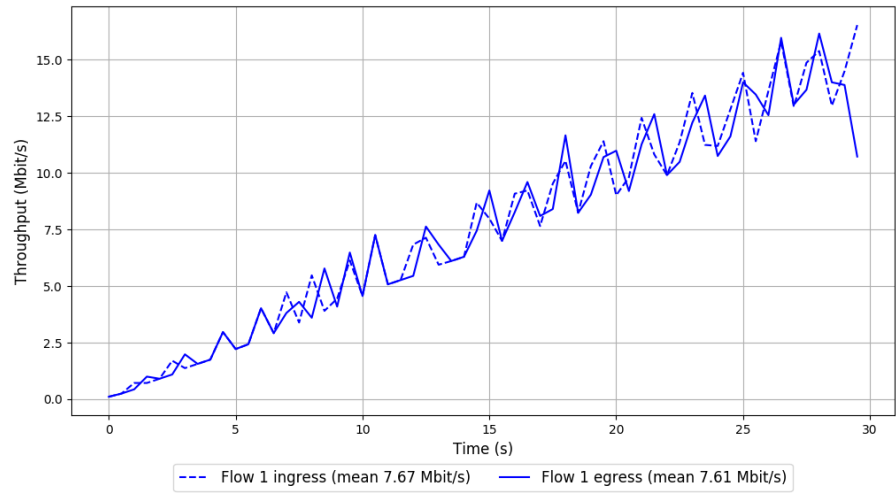Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.62 Mbit/s) --- Flow 1 egress (mean 9.56 Mbit/s)

Flow 1 (95th percentile 40.59 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-04-24 07:28:44
End at: 2018-04-24 07:29:14
Local clock offset: -1.217 ms
Remote clock offset: 12.664 ms

# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.11 Mbit/s
95th percentile per-packet one-way delay: 41.066 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 9.11 Mbit/s
95th percentile per-packet one-way delay: 41.066 ms
Loss rate: 1.32%
```

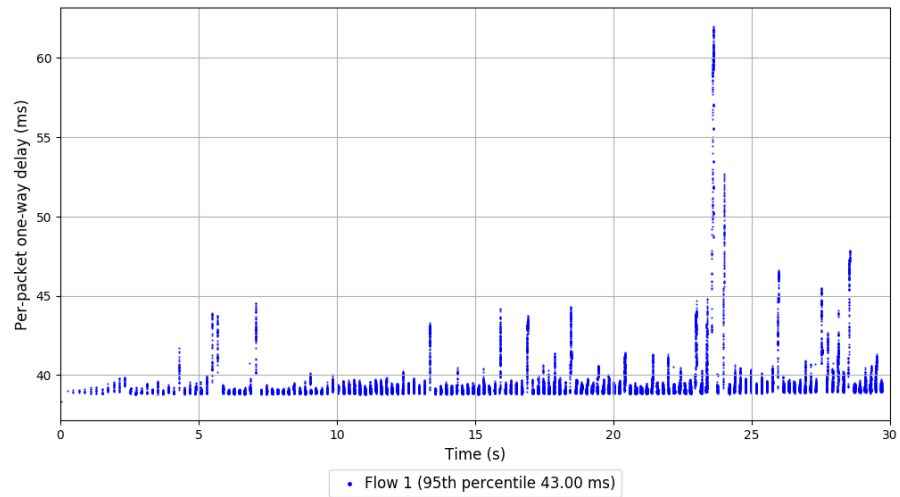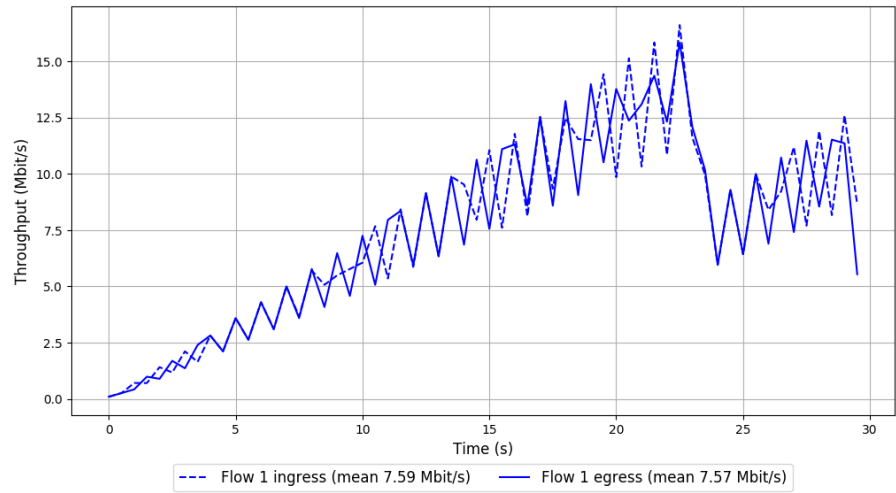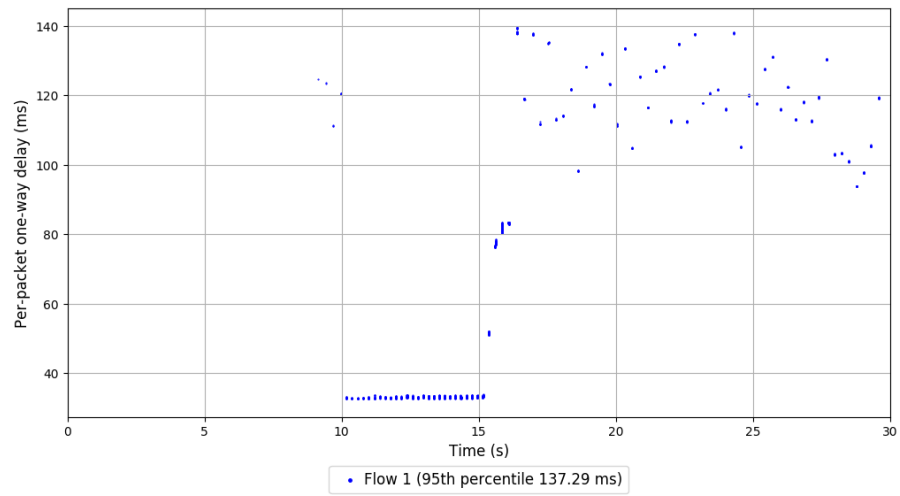Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-04-24 07:51:03
End at: 2018-04-24 07:51:33
Local clock offset: -5.902 ms
Remote clock offset: 21.893 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 44.404 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 44.404 ms
Loss rate: 1.44%
```

Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 7.67 Mbit/s)   Flow 1 egress (mean 7.61 Mbit/s)

• Flow 1 (95th percentile 44.40 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-04-24 08:12:34
End at: 2018-04-24 08:13:04
Local clock offset: -1.829 ms
Remote clock offset: 34.437 ms


# Below is generated by plot.py at 2018-04-24 12:25:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 43.003 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 43.003 ms
Loss rate: 0.98%
```
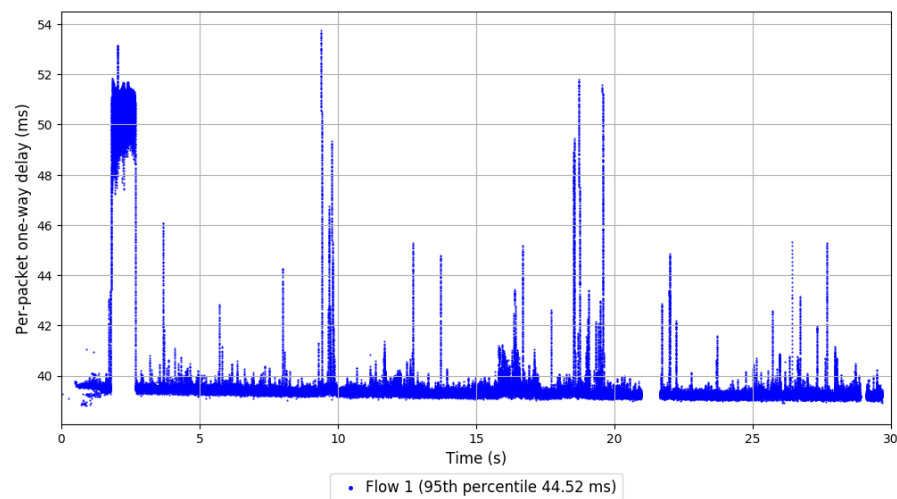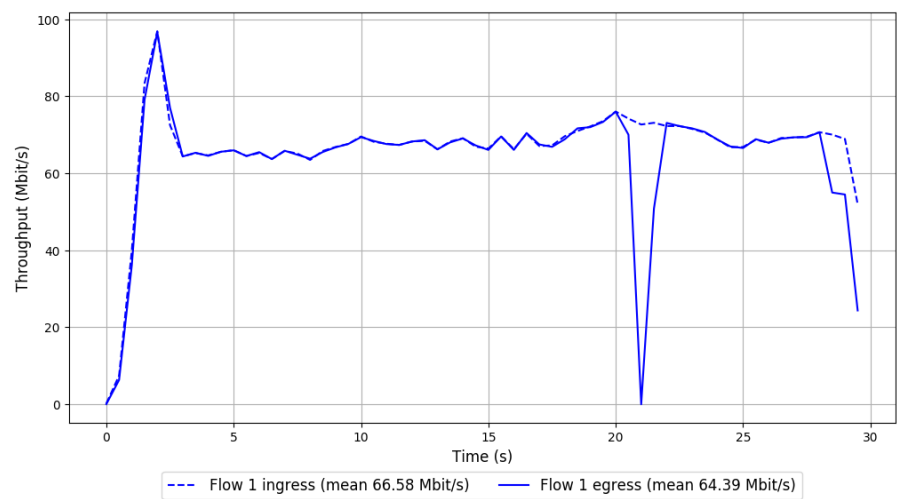
Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-04-24 08:34:25
End at: 2018-04-24 08:34:55
Local clock offset: -2.483 ms
Remote clock offset: 25.936 ms
```

Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-04-24 05:05:44
End at: 2018-04-24 05:06:14
Local clock offset: -2.675 ms
Remote clock offset: -1.355 ms


# Below is generated by plot.py at 2018-04-24 12:25:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 44.519 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 44.519 ms
Loss rate: 4.05%
```
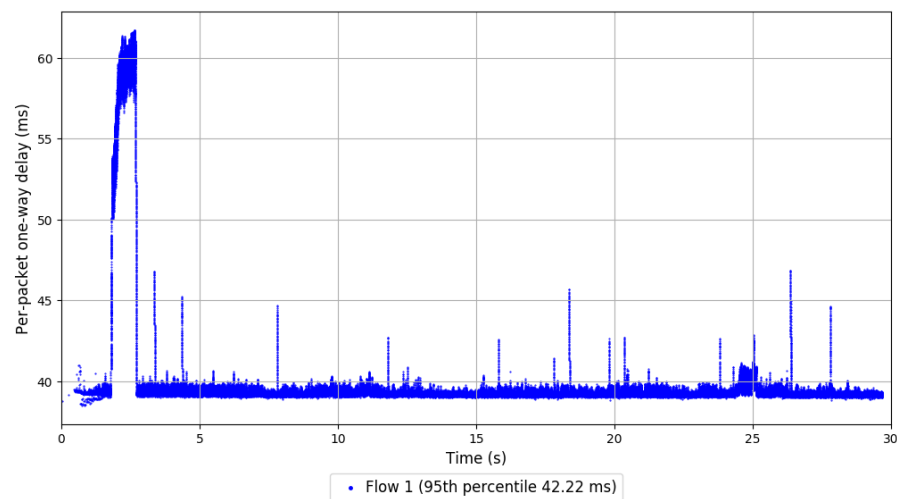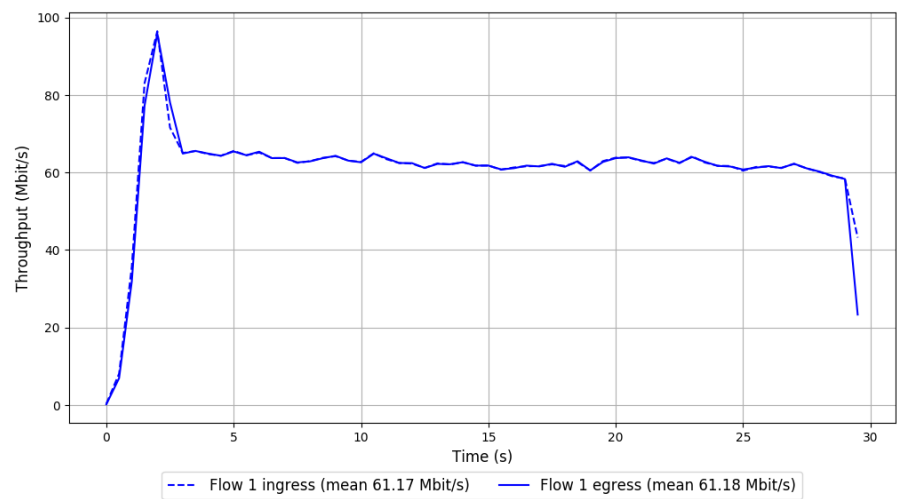
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 66.58 Mbit/s)   Flow 1 egress (mean 64.39 Mbit/s)

• Flow 1 (95th percentile 44.52 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-24 05:27:10
End at: 2018-04-24 05:27:40
Local clock offset: -2.008 ms
Remote clock offset: -1.142 ms


# Below is generated by plot.py at 2018-04-24 12:25:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.18 Mbit/s
95th percentile per-packet one-way delay: 42.223 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 61.18 Mbit/s
95th percentile per-packet one-way delay: 42.223 ms
Loss rate: 0.67%
```
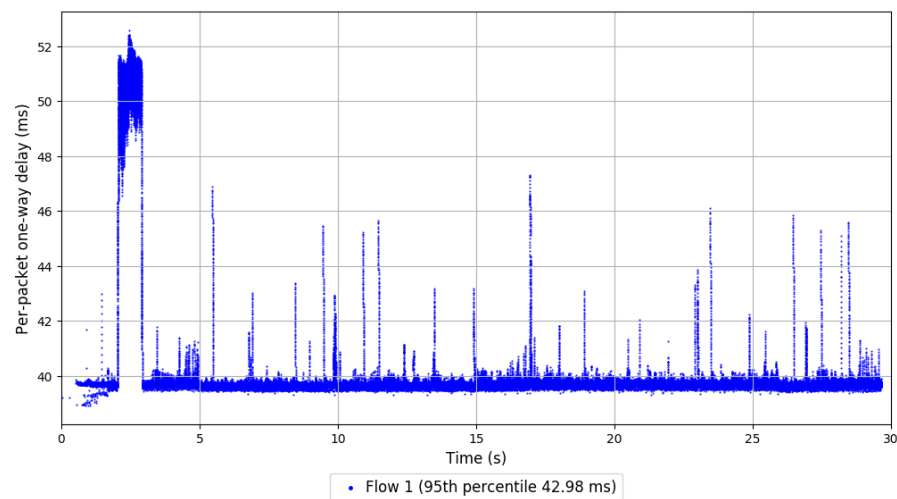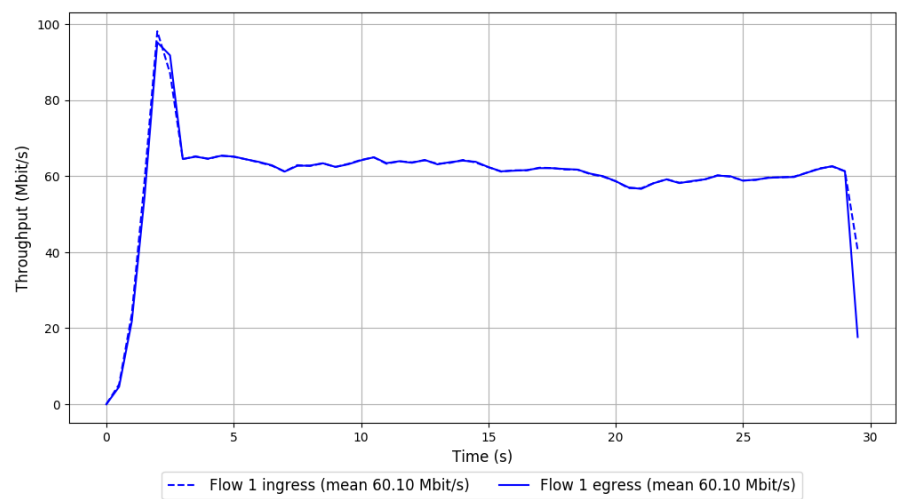
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 61.17 Mbit/s)   Flow 1 egress (mean 61.18 Mbit/s)

Flow 1 (95th percentile 42.22 ms)

67

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-04-24 05:48:27
End at: 2018-04-24 05:48:57
Local clock offset: 0.907 ms
Remote clock offset: 2.033 ms


# Below is generated by plot.py at 2018-04-24 12:25:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.10 Mbit/s
95th percentile per-packet one-way delay: 42.978 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 60.10 Mbit/s
95th percentile per-packet one-way delay: 42.978 ms
Loss rate: 0.77%
```
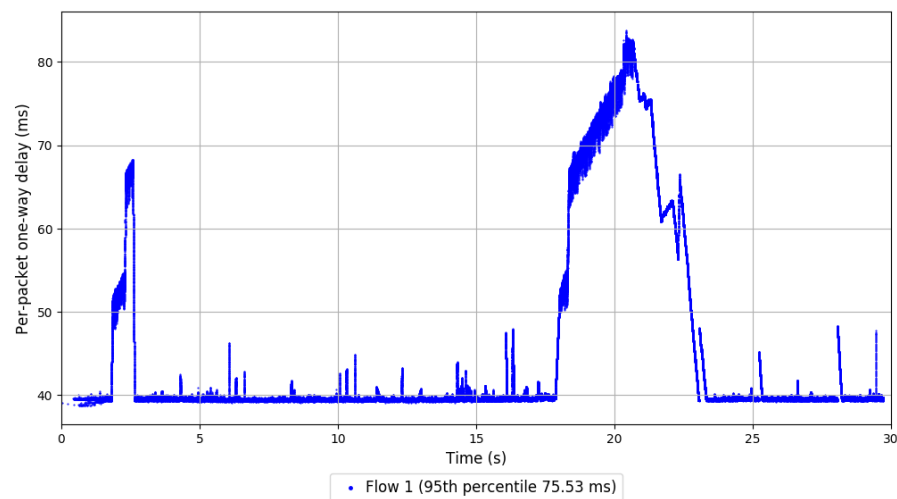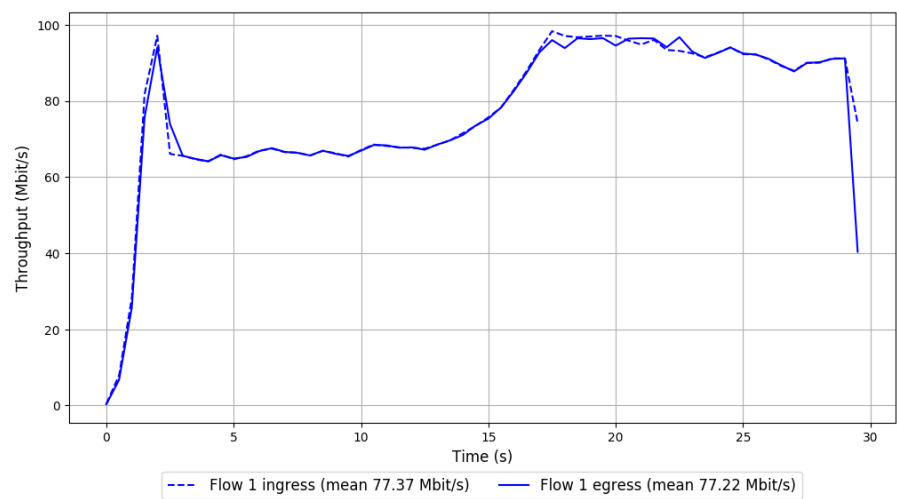
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 60.10 Mbit/s)　　Flow 1 egress (mean 60.10 Mbit/s)

Flow 1 (95th percentile 42.98 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-04-24 06:09:47
End at: 2018-04-24 06:10:17
Local clock offset: 2.392 ms
Remote clock offset: 30.792 ms


# Below is generated by plot.py at 2018-04-24 12:26:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.22 Mbit/s
95th percentile per-packet one-way delay: 75.530 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 77.22 Mbit/s
95th percentile per-packet one-way delay: 75.530 ms
Loss rate: 0.95%
```

Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-04-24 06:31:02
End at: 2018-04-24 06:31:32
Local clock offset: 3.149 ms
Remote clock offset: -11.419 ms


# Below is generated by plot.py at 2018-04-24 12:26:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 40.526 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 40.526 ms
Loss rate: 0.75%
```
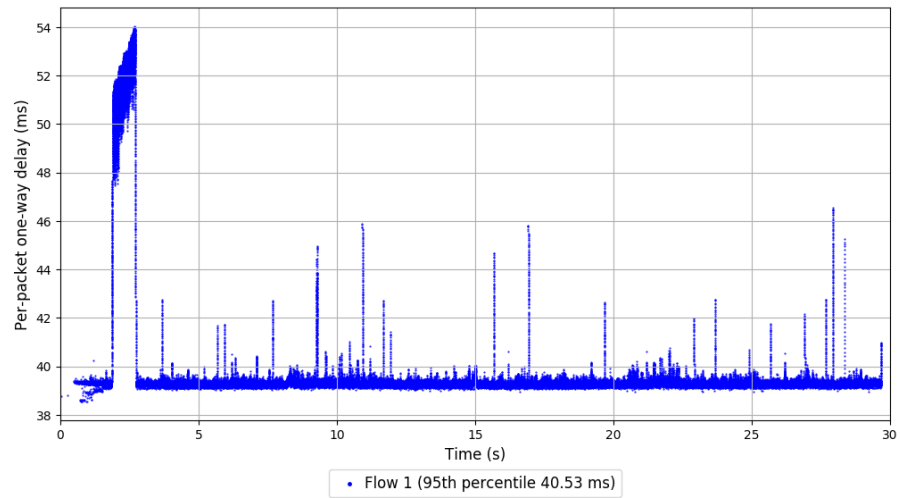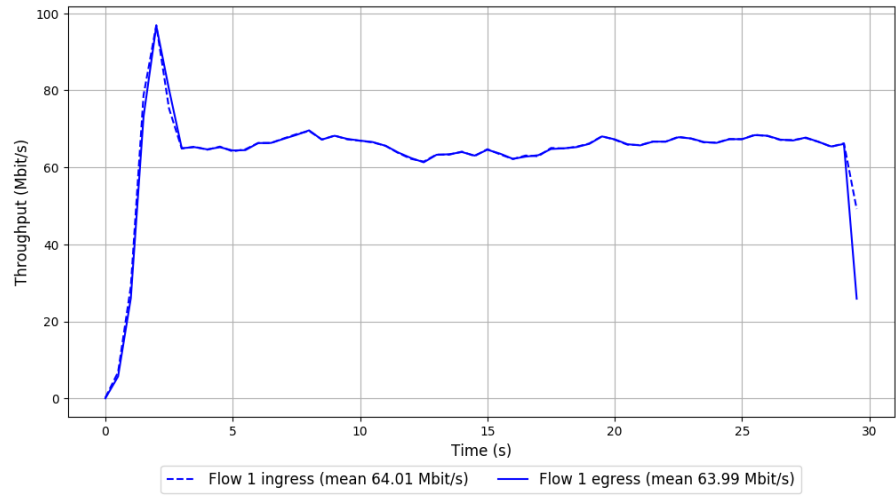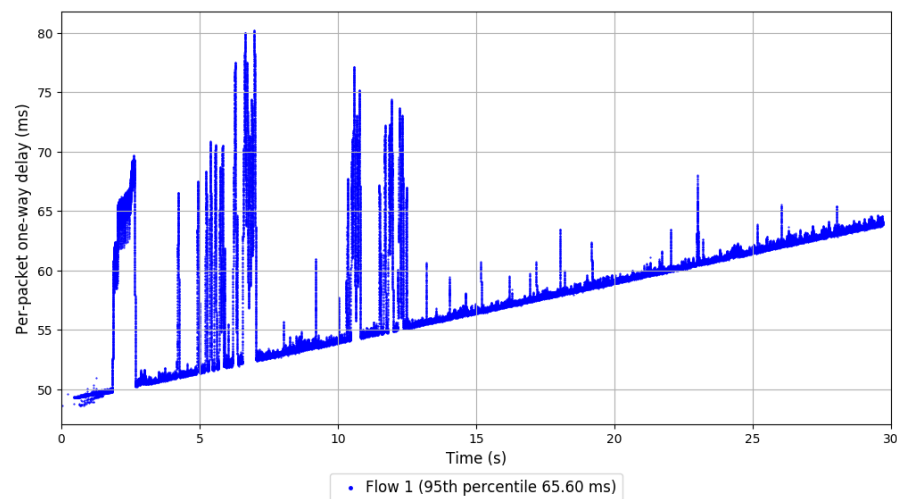
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 64.01 Mbit/s)　　Flow 1 egress (mean 63.99 Mbit/s)

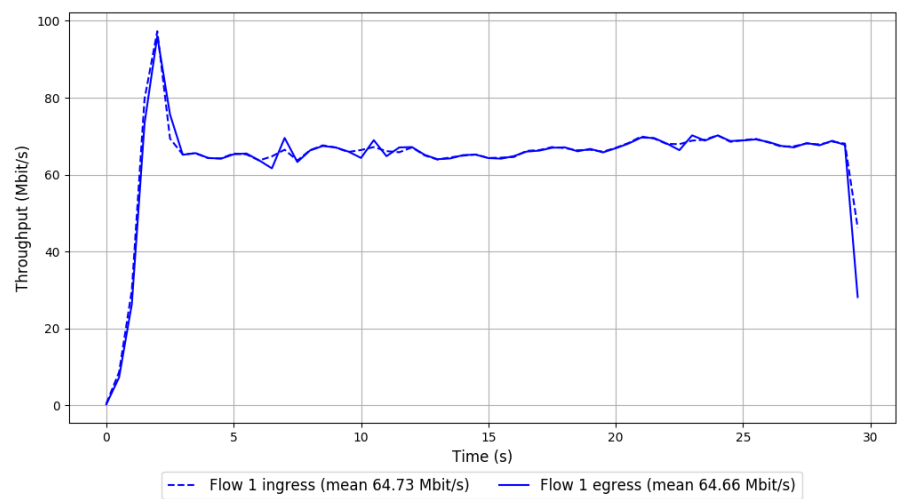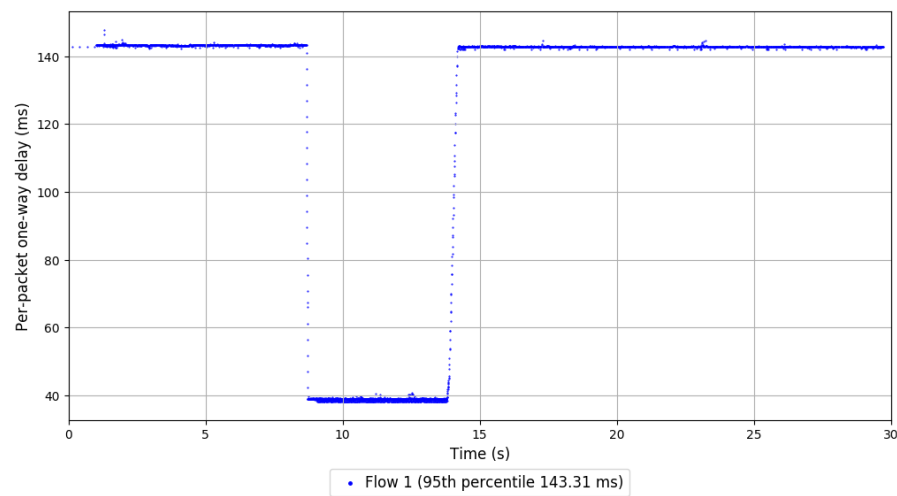

• Flow 1 (95th percentile 40.53 ms)

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-04-24 06:52:19
End at: 2018-04-24 06:52:50
Local clock offset: 3.337 ms
Remote clock offset: 12.176 ms


# Below is generated by plot.py at 2018-04-24 12:26:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 65.597 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 65.597 ms
Loss rate: 0.70%
```

Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 64.73 Mbit/s) — Flow 1 egress (mean 64.66 Mbit/s)

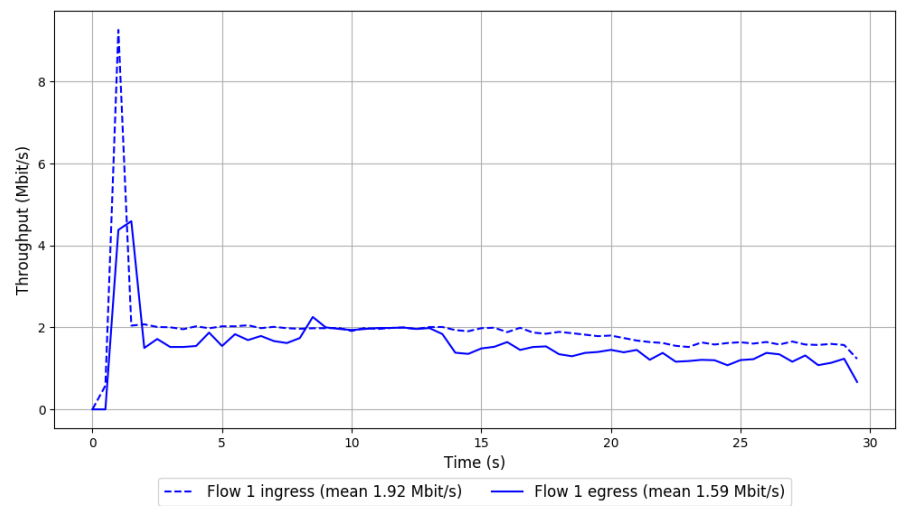

• Flow 1 (95th percentile 65.60 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-04-24 07:13:36
End at: 2018-04-24 07:14:06
Local clock offset: 3.015 ms
Remote clock offset: 44.122 ms


# Below is generated by plot.py at 2018-04-24 12:26:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 143.306 ms
Loss rate: 17.77%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 143.306 ms
Loss rate: 17.77%
```
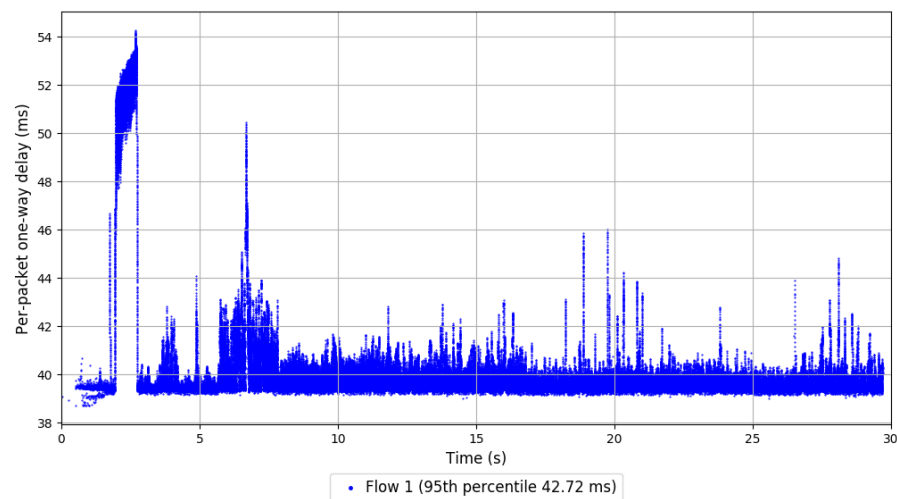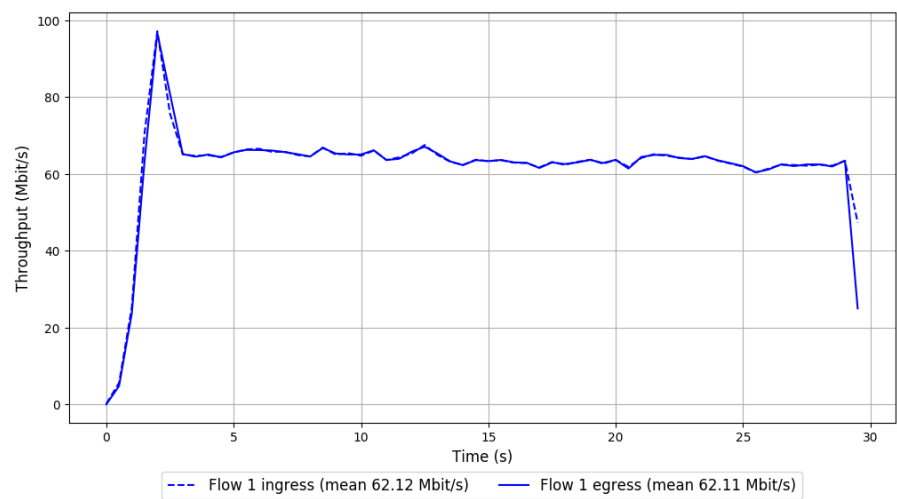
Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 1.92 Mbit/s)   Flow 1 egress (mean 1.59 Mbit/s)

Flow 1 (95th percentile 143.31 ms)

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-04-24 07:40:58
End at: 2018-04-24 07:41:28
Local clock offset: -4.406 ms
Remote clock offset: 10.261 ms


# Below is generated by plot.py at 2018-04-24 12:26:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.11 Mbit/s
95th percentile per-packet one-way delay: 42.716 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 62.11 Mbit/s
95th percentile per-packet one-way delay: 42.716 ms
Loss rate: 0.74%
```
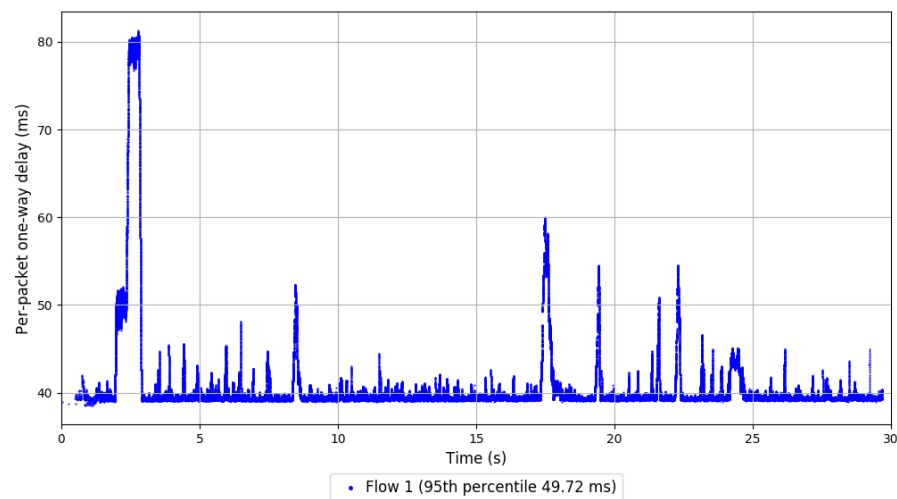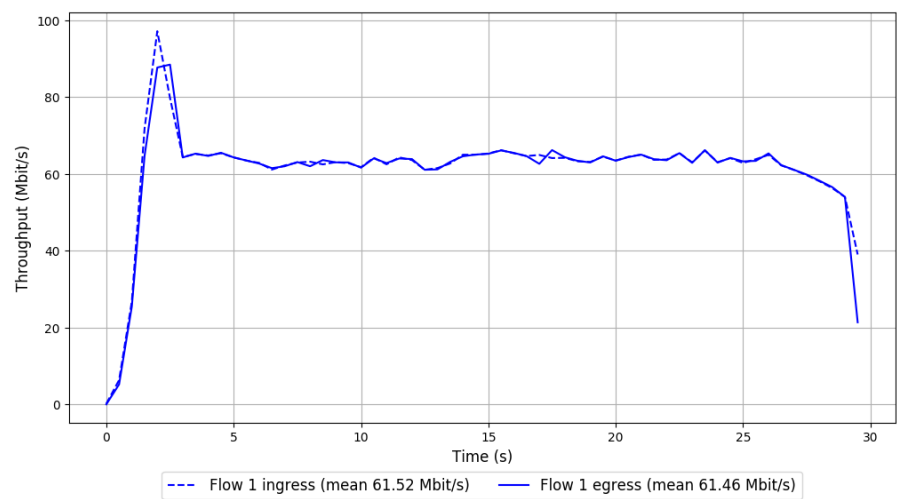
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 62.12 Mbit/s) --- Flow 1 egress (mean 62.11 Mbit/s)
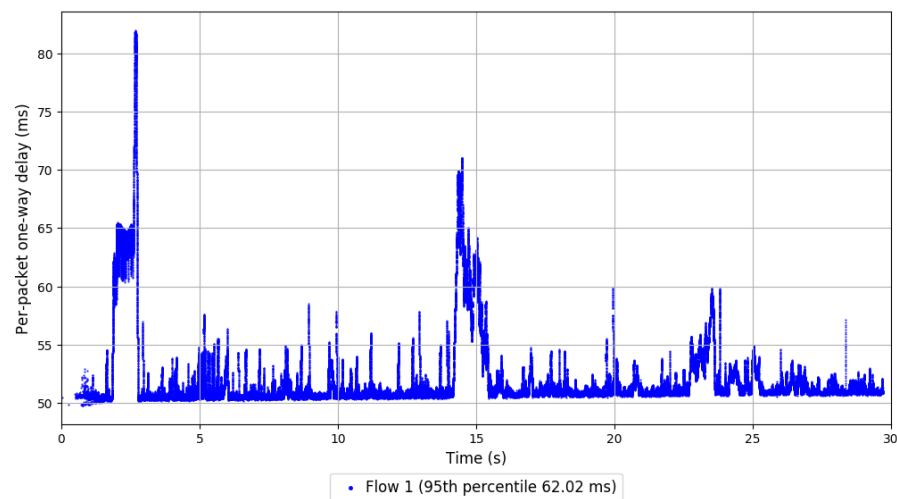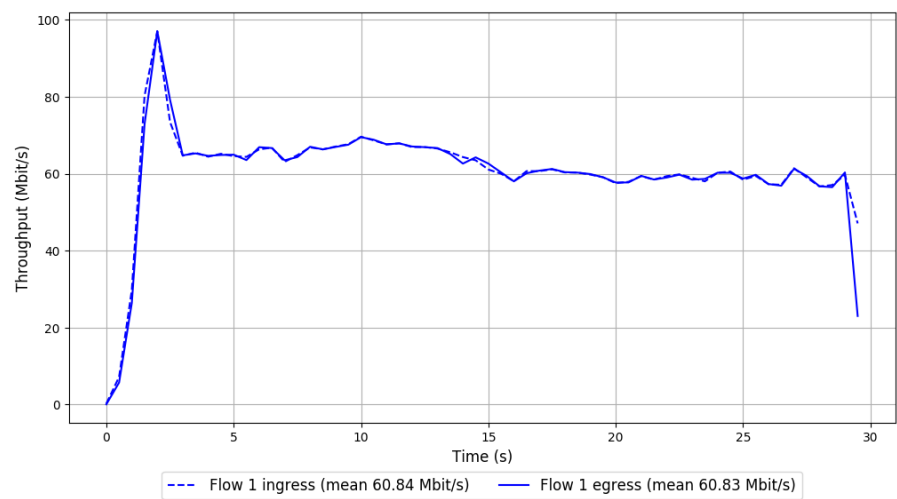

Flow 1 (95th percentile 42.72 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-04-24 08:02:14
End at: 2018-04-24 08:02:44
Local clock offset: -3.113 ms
Remote clock offset: 30.909 ms


# Below is generated by plot.py at 2018-04-24 12:26:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.46 Mbit/s
95th percentile per-packet one-way delay: 49.723 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 61.46 Mbit/s
95th percentile per-packet one-way delay: 49.723 ms
Loss rate: 0.75%
```

Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 61.52 Mbit/s)   Flow 1 egress (mean 61.46 Mbit/s)

Flow 1 (95th percentile 49.72 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-04-24 08:23:44
End at: 2018-04-24 08:24:14
Local clock offset: -1.296 ms
Remote clock offset: 25.627 ms


# Below is generated by plot.py at 2018-04-24 12:26:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.83 Mbit/s
95th percentile per-packet one-way delay: 62.023 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 60.83 Mbit/s
95th percentile per-packet one-way delay: 62.023 ms
Loss rate: 0.83%
```

Run 10: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-24 05:07:06
End at: 2018-04-24 05:07:36
Local clock offset: -2.079 ms
Remote clock offset: -1.347 ms


# Below is generated by plot.py at 2018-04-24 12:26:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 39.698 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 39.698 ms
Loss rate: 1.02%
```
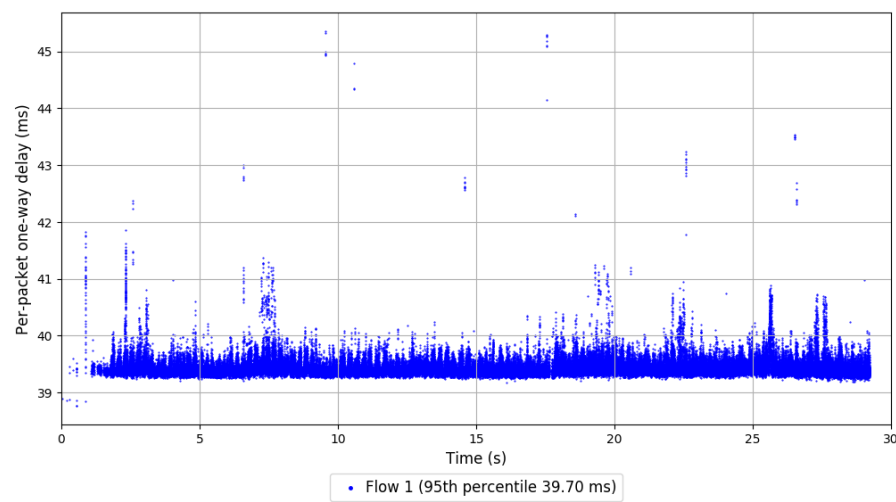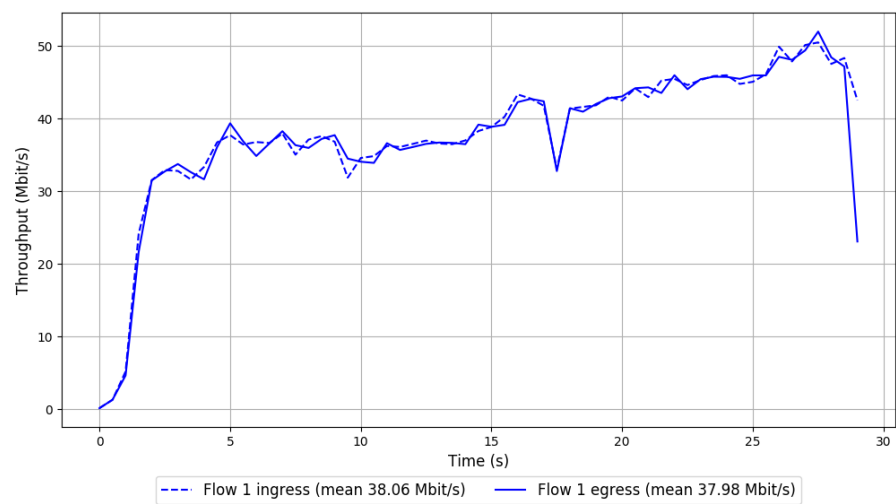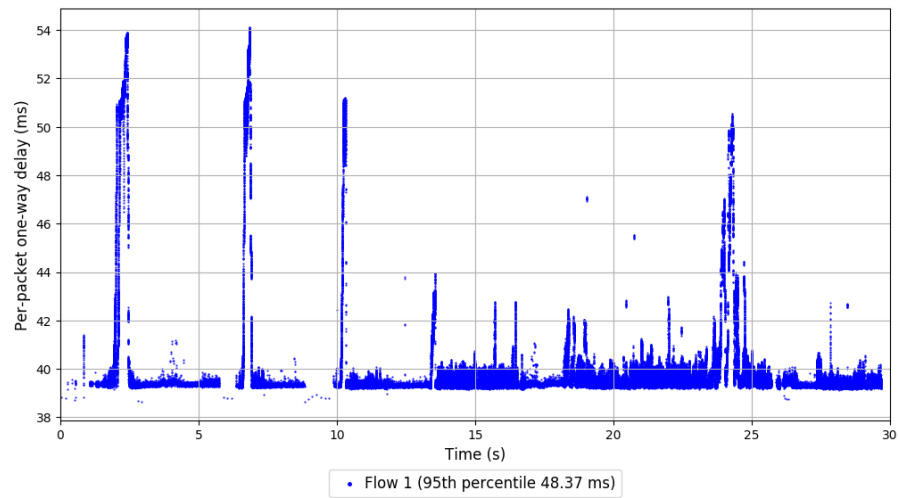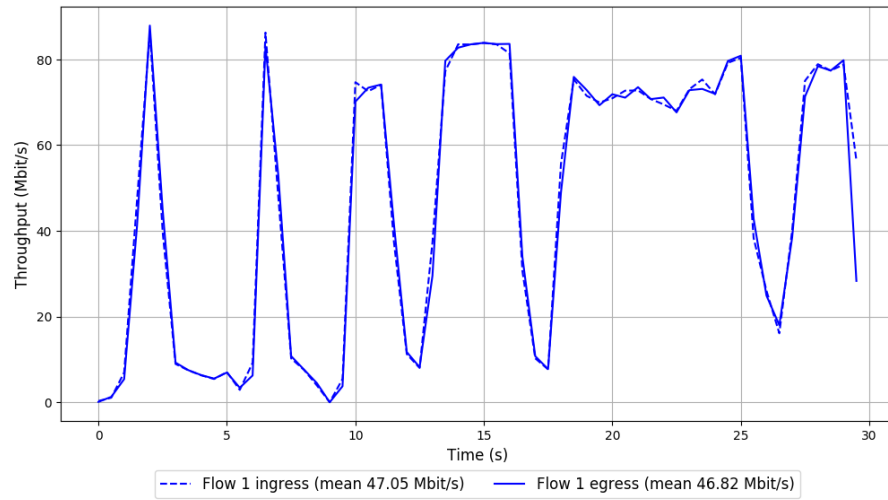
Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 38.06 Mbit/s) --- Flow 1 egress (mean 37.98 Mbit/s)

• Flow 1 (95th percentile 39.70 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-24 05:28:25
End at: 2018-04-24 05:28:55
Local clock offset: -1.881 ms
Remote clock offset: -1.113 ms


# Below is generated by plot.py at 2018-04-24 12:26:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.82 Mbit/s
95th percentile per-packet one-way delay: 48.367 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 46.82 Mbit/s
95th percentile per-packet one-way delay: 48.367 ms
Loss rate: 1.20%
```

Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-24 05:49:43
End at: 2018-04-24 05:50:13
Local clock offset: 1.127 ms
Remote clock offset: 2.217 ms


# Below is generated by plot.py at 2018-04-24 12:26:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 39.875 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 39.875 ms
Loss rate: 1.15%
```
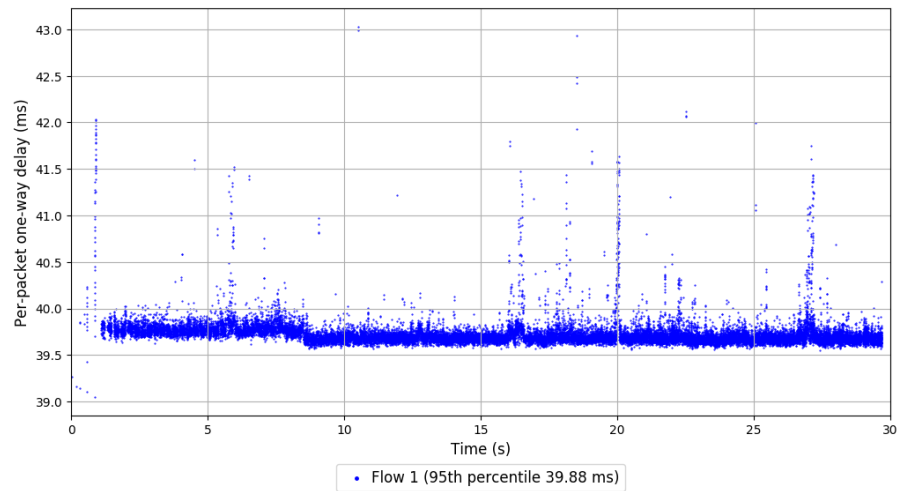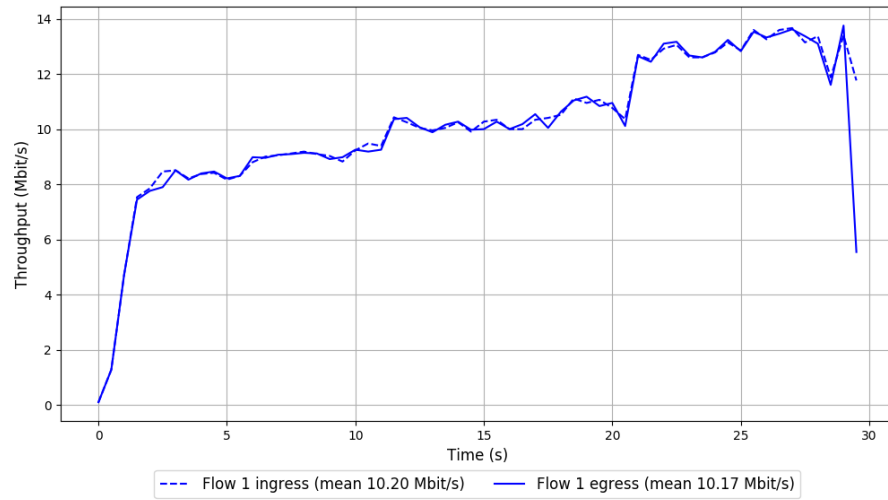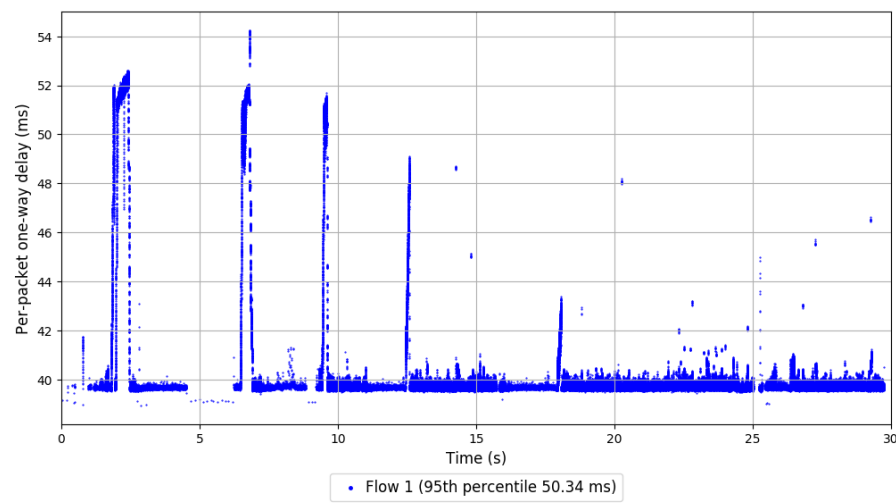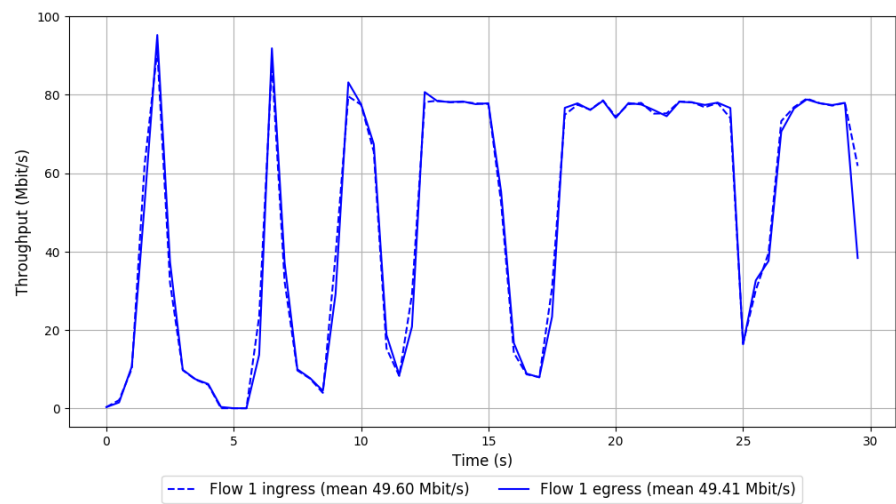
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 10.20 Mbit/s)   Flow 1 egress (mean 10.17 Mbit/s)

Flow 1 (95th percentile 39.88 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-24 06:11:03
End at: 2018-04-24 06:11:33
Local clock offset: 2.381 ms
Remote clock offset: 30.901 ms


# Below is generated by plot.py at 2018-04-24 12:27:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 50.342 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 50.342 ms
Loss rate: 1.00%
```
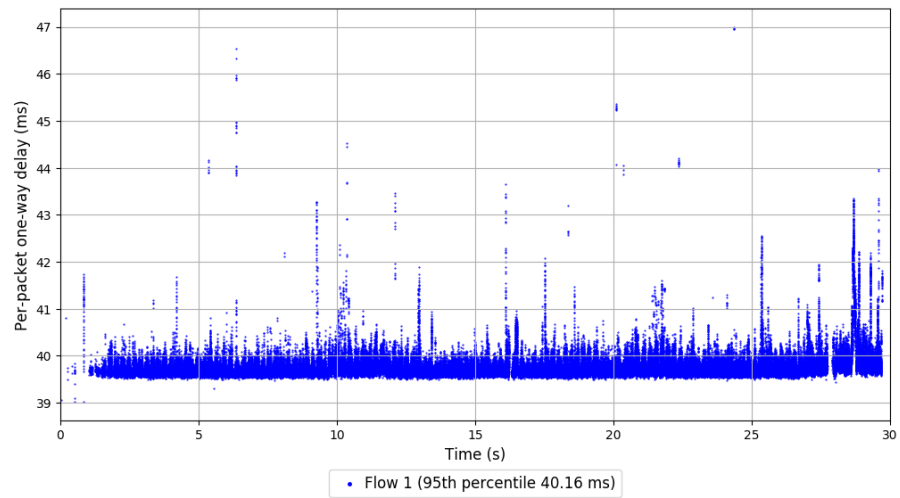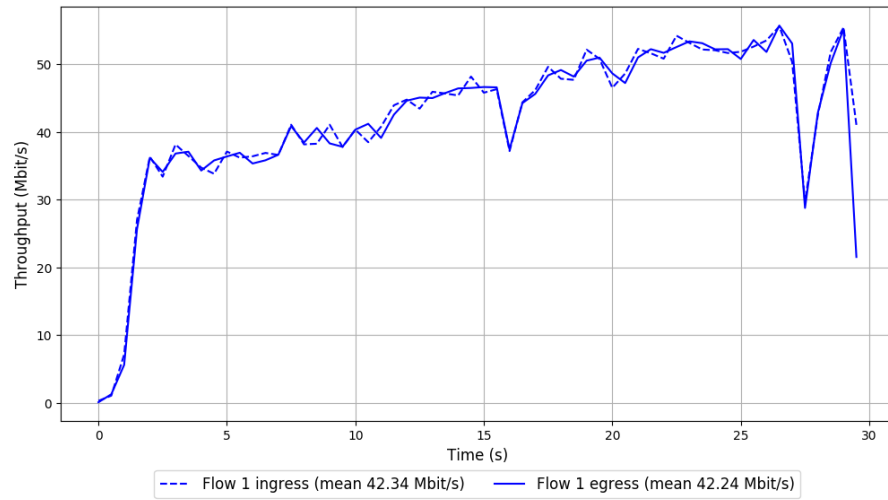
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 49.60 Mbit/s)   Flow 1 egress (mean 49.41 Mbit/s)

Flow 1 (95th percentile 50.34 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-24 06:32:17
End at: 2018-04-24 06:32:47
Local clock offset: 3.429 ms
Remote clock offset: -11.19 ms


# Below is generated by plot.py at 2018-04-24 12:27:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.24 Mbit/s
95th percentile per-packet one-way delay: 40.161 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 42.24 Mbit/s
95th percentile per-packet one-way delay: 40.161 ms
Loss rate: 0.96%
```
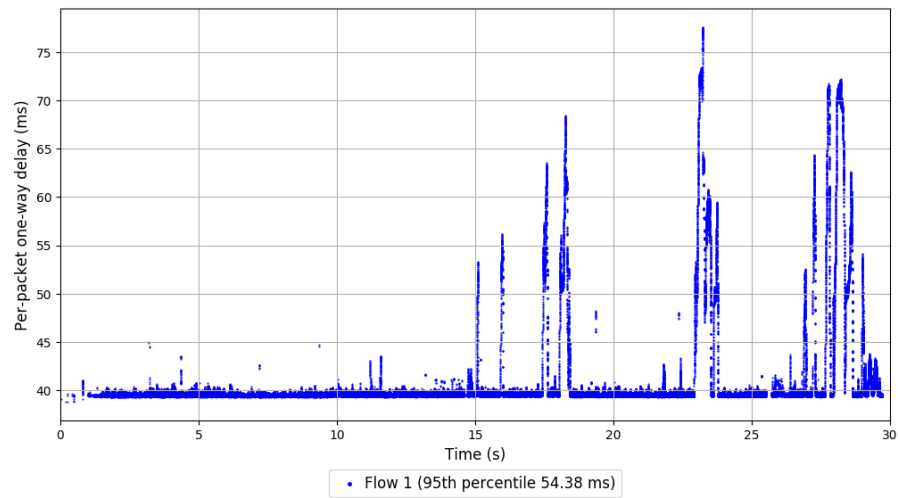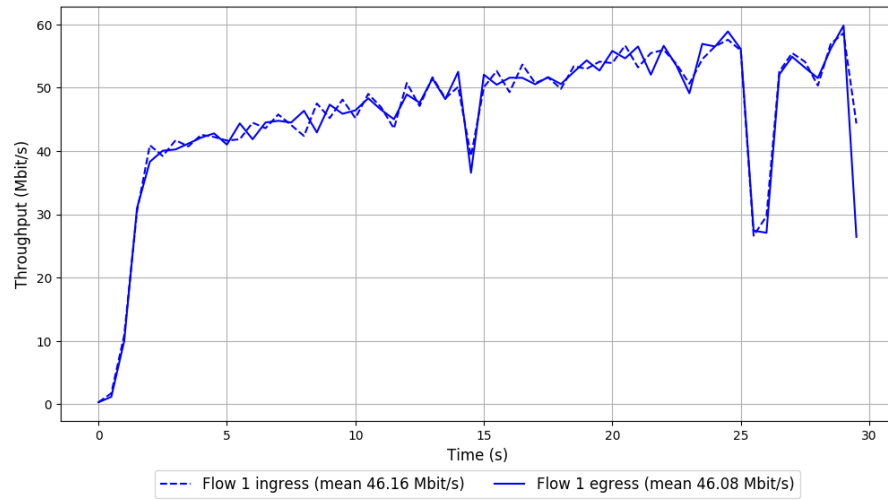
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 42.34 Mbit/s) ---- Flow 1 egress (mean 42.24 Mbit/s)

• Flow 1 (95th percentile 40.16 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-24 06:53:34
End at: 2018-04-24 06:54:04
Local clock offset: 3.264 ms
Remote clock offset: 42.913 ms


# Below is generated by plot.py at 2018-04-24 12:27:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.08 Mbit/s
95th percentile per-packet one-way delay: 54.380 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 46.08 Mbit/s
95th percentile per-packet one-way delay: 54.380 ms
Loss rate: 0.83%
```
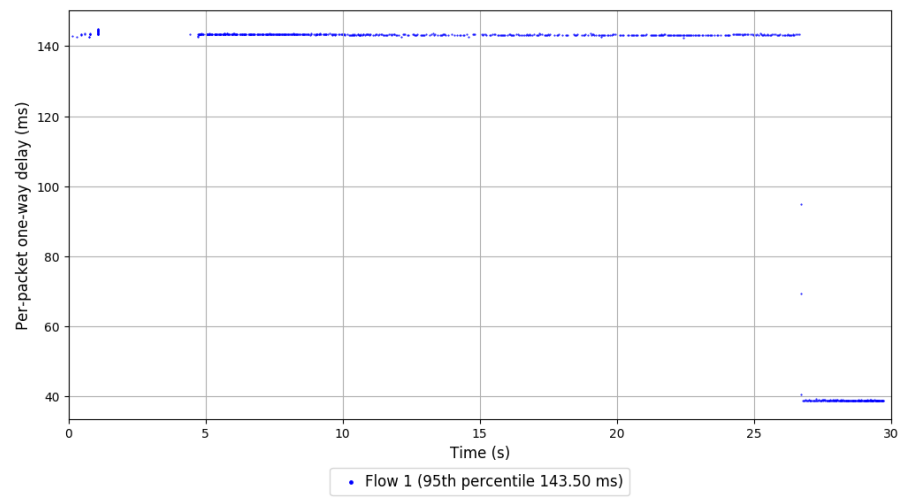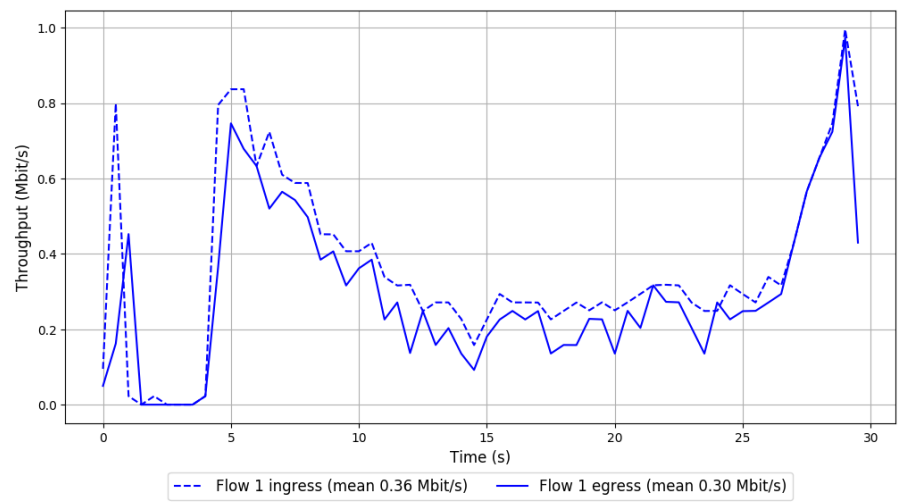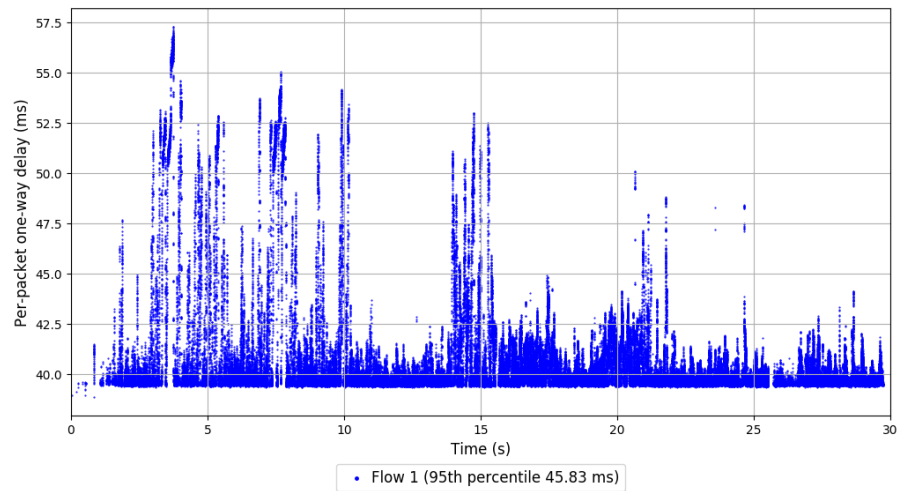
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 46.16 Mbit/s)   Flow 1 egress (mean 46.08 Mbit/s)

• Flow 1 (95th percentile 54.38 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-24 07:15:04
End at: 2018-04-24 07:15:34
Local clock offset: 3.258 ms
Remote clock offset: 42.721 ms


# Below is generated by plot.py at 2018-04-24 12:27:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 143.505 ms
Loss rate: 18.44%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 143.505 ms
Loss rate: 18.44%
```

Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-24 07:42:13
End at: 2018-04-24 07:42:43
Local clock offset: -4.415 ms
Remote clock offset: 10.152 ms


# Below is generated by plot.py at 2018-04-24 12:27:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.40 Mbit/s
95th percentile per-packet one-way delay: 45.825 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 46.40 Mbit/s
95th percentile per-packet one-way delay: 45.825 ms
Loss rate: 0.93%
```
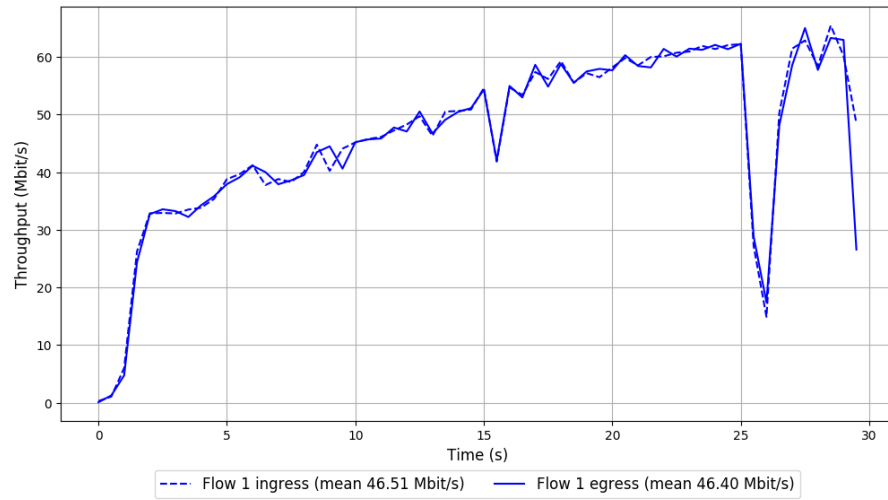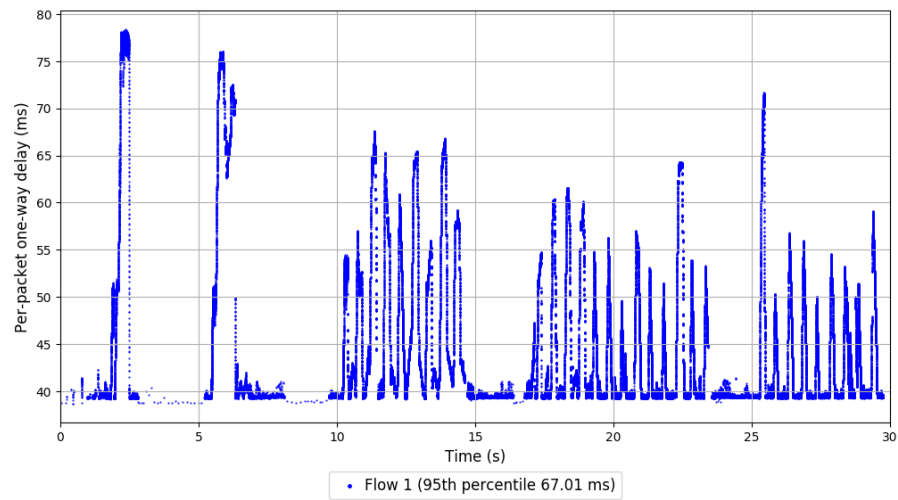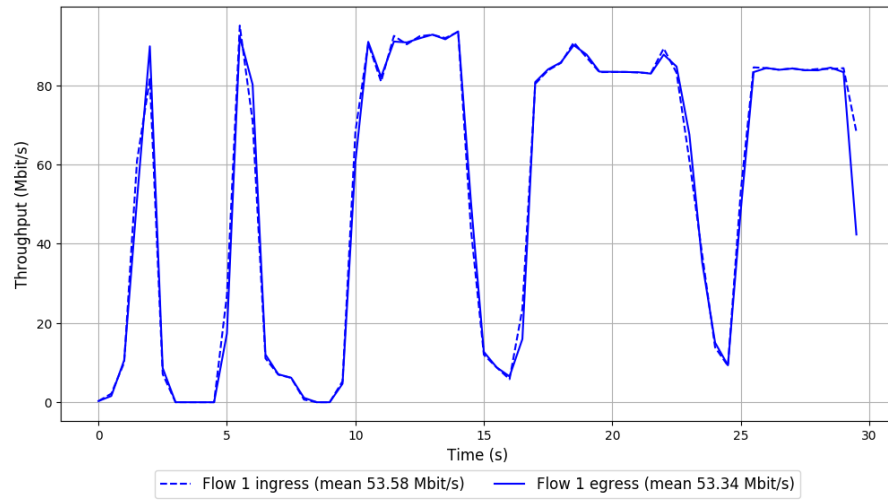
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 46.51 Mbit/s)   Flow 1 egress (mean 46.40 Mbit/s)

Flow 1 (95th percentile 45.83 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-24 08:03:29
End at: 2018-04-24 08:03:59
Local clock offset: -2.619 ms
Remote clock offset: 31.598 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.34 Mbit/s
95th percentile per-packet one-way delay: 67.009 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 53.34 Mbit/s
95th percentile per-packet one-way delay: 67.009 ms
Loss rate: 1.10%
```
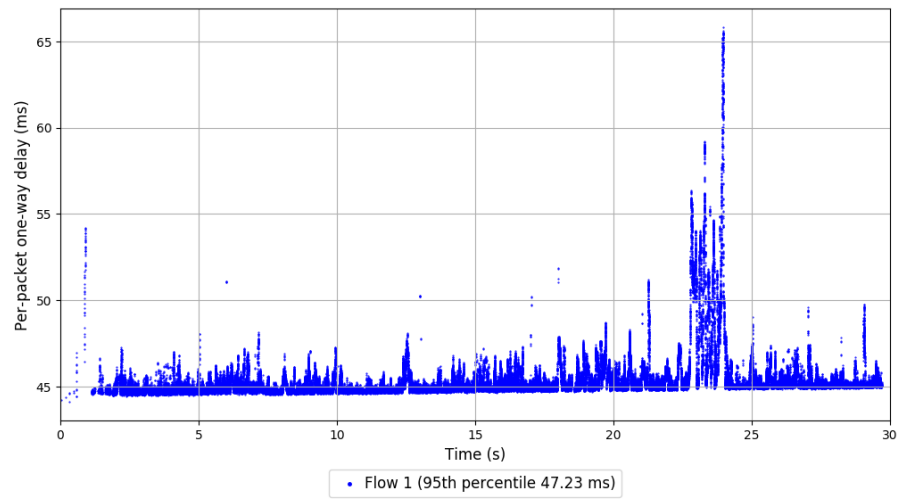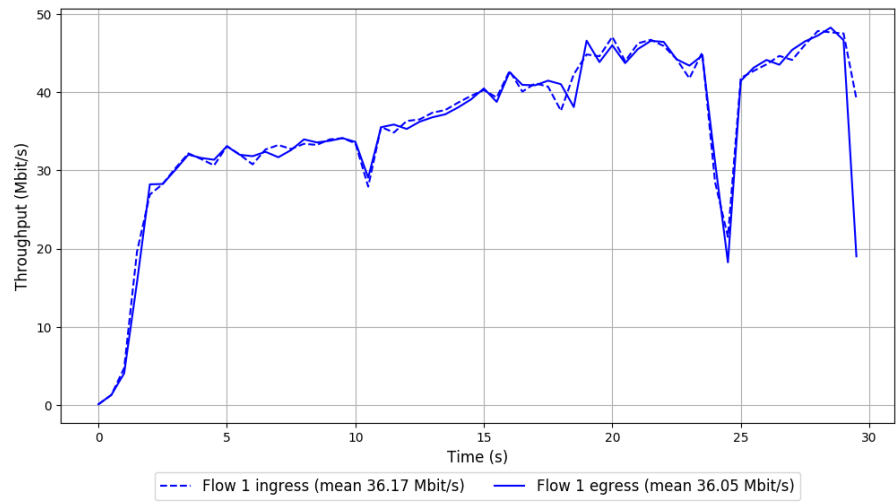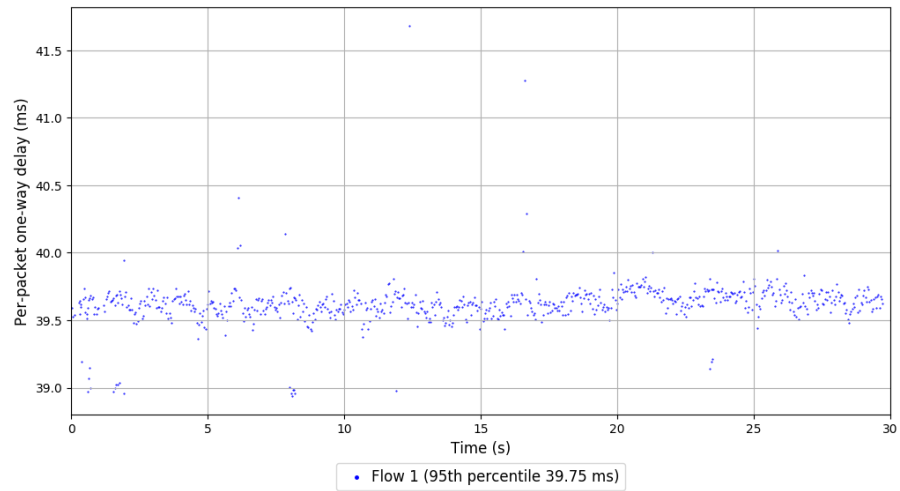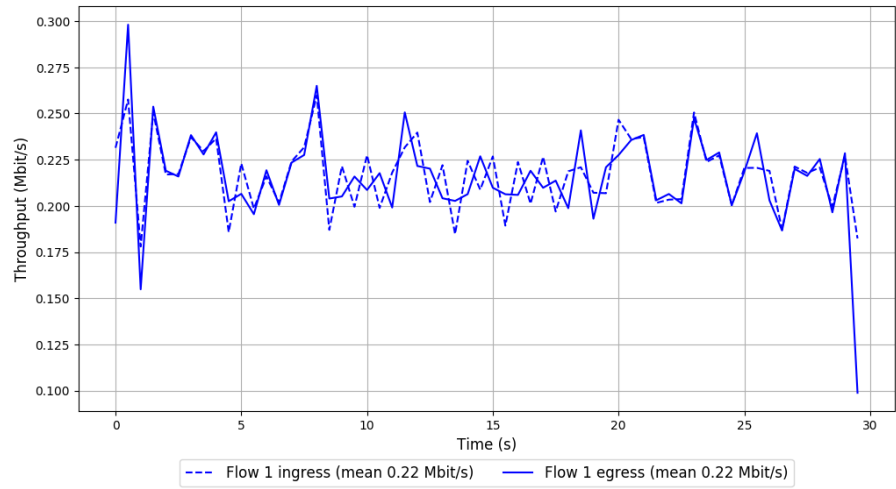
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.58 Mbit/s) --- Flow 1 egress (mean 53.34 Mbit/s)

• Flow 1 (95th percentile 67.01 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-24 08:25:00
End at: 2018-04-24 08:25:31
Local clock offset: -1.414 ms
Remote clock offset: 30.401 ms

# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 47.229 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 47.229 ms
Loss rate: 1.12%
```

Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 36.17 Mbit/s) ----- Flow 1 egress (mean 36.05 Mbit/s)

Flow 1 (95th percentile 47.23 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-04-24 05:18:25
End at: 2018-04-24 05:18:55
Local clock offset: -3.663 ms
Remote clock offset: -1.293 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.754 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.754 ms
Loss rate: 0.77%
```
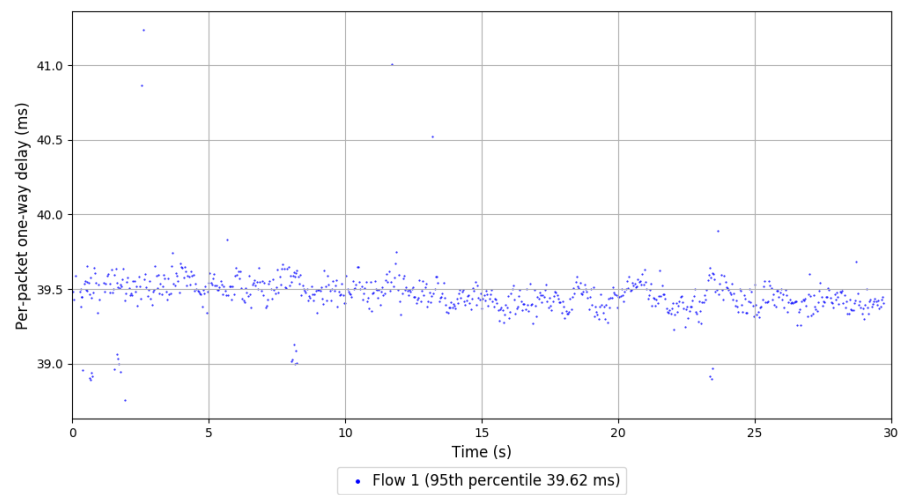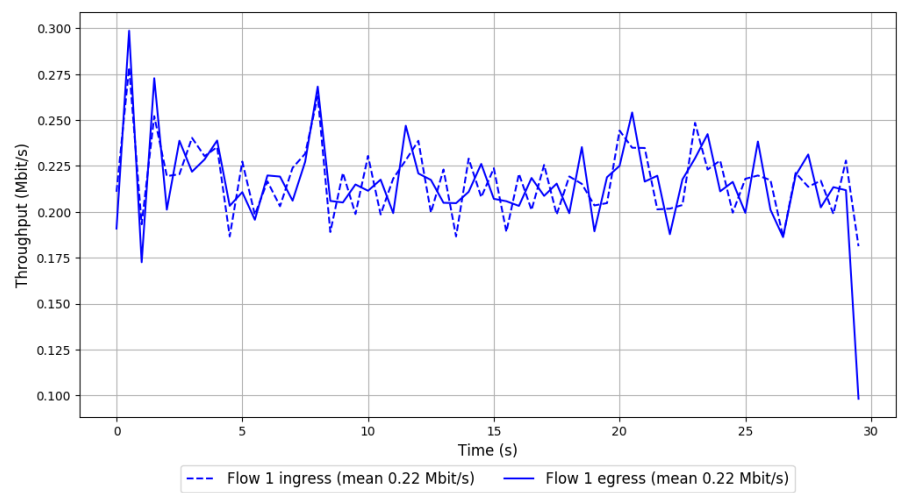
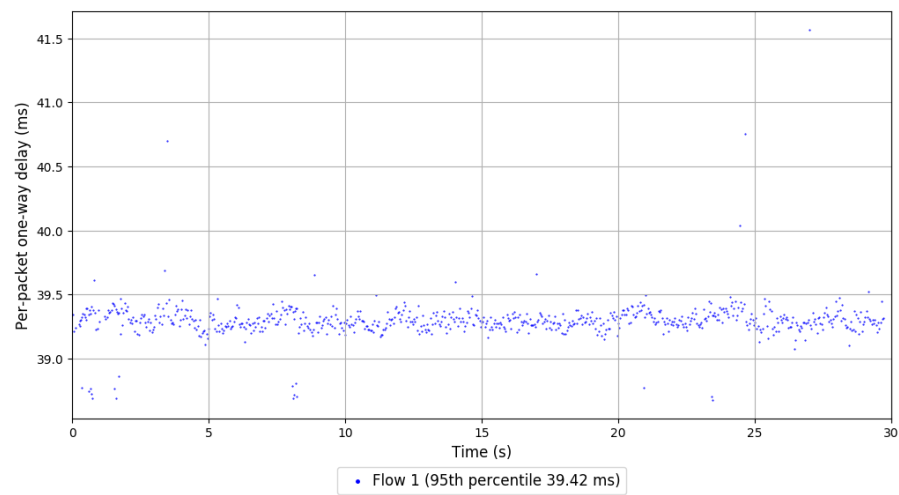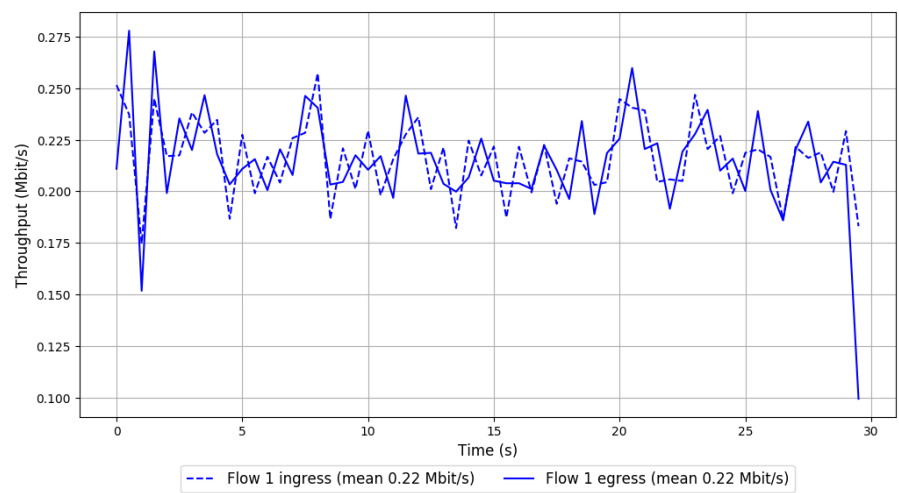Run 1: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 39.75 ms)

```
Run 2: Statistics of SCReAM

Start at: 2018-04-24 05:39:40
End at: 2018-04-24 05:40:10
Local clock offset: -0.798 ms
Remote clock offset: 0.961 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.616 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.616 ms
Loss rate: 0.76%
```
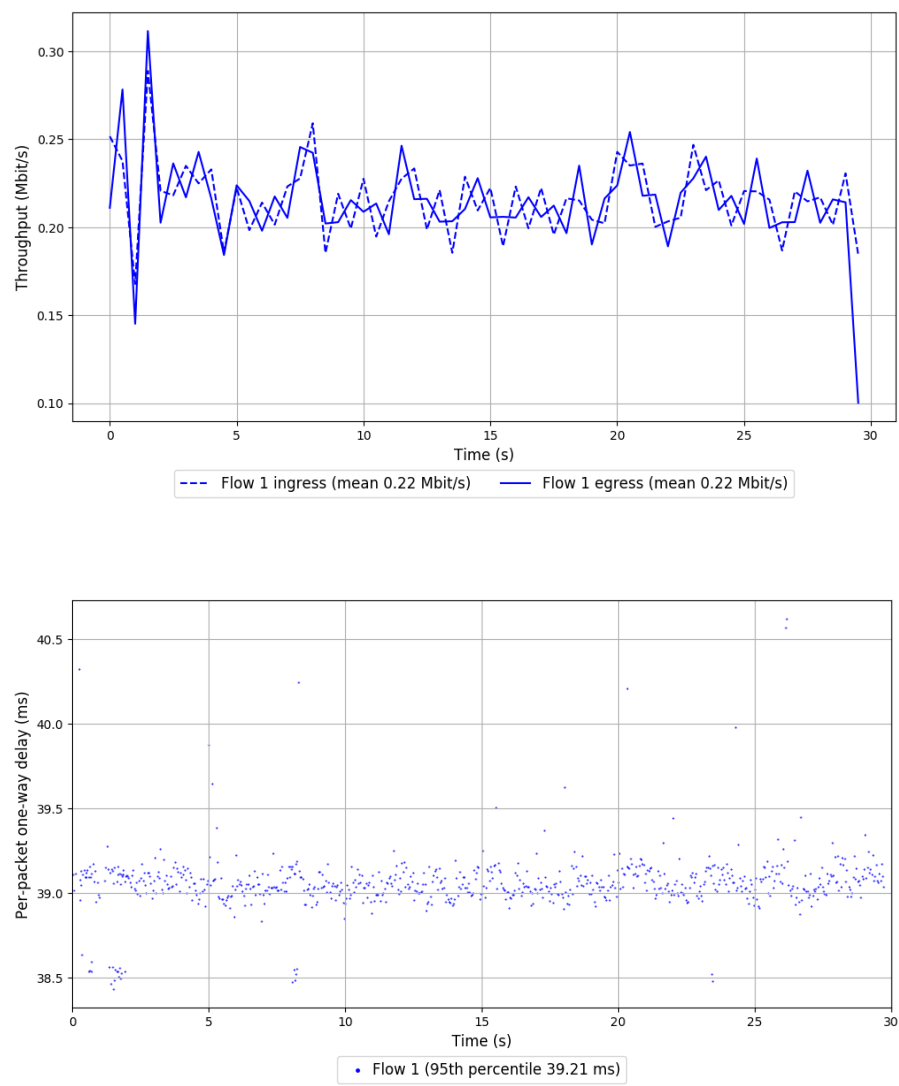
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-04-24 06:01:03
End at: 2018-04-24 06:01:33
Local clock offset: 1.812 ms
Remote clock offset: 30.356 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.418 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.418 ms
Loss rate: 0.77%
```

Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-04-24 06:22:16
End at: 2018-04-24 06:22:46
Local clock offset: 2.83 ms
Remote clock offset: -11.97 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.213 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.213 ms
Loss rate: 0.77%
```
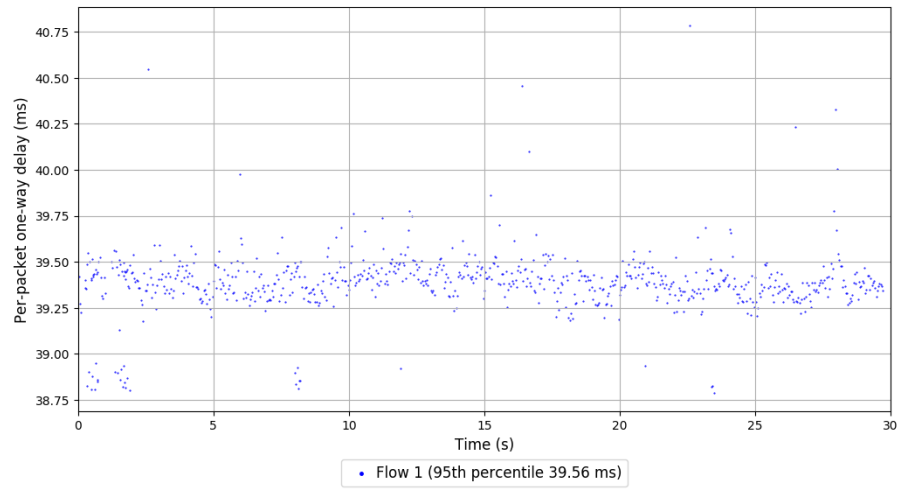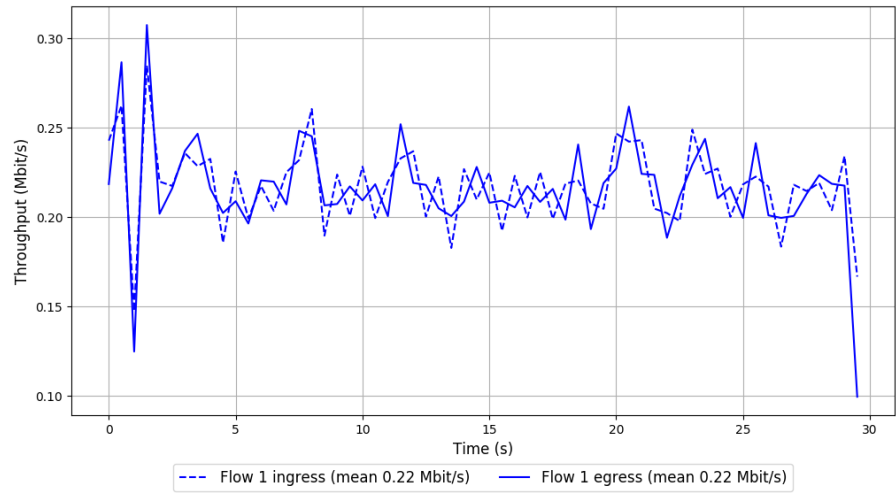
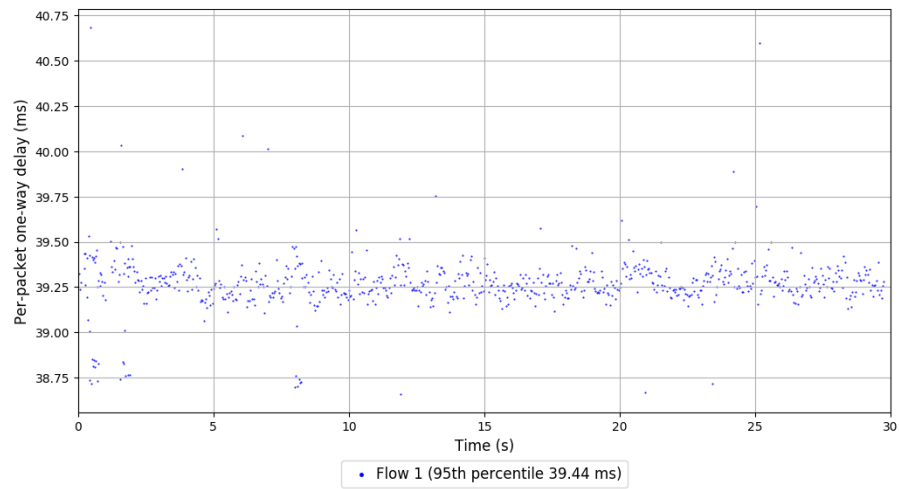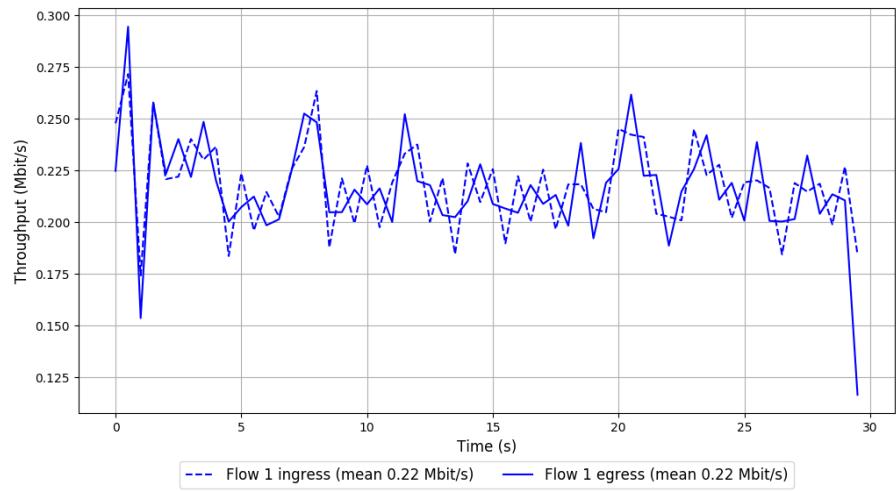Run 4: Report of SCReAM — Data Link
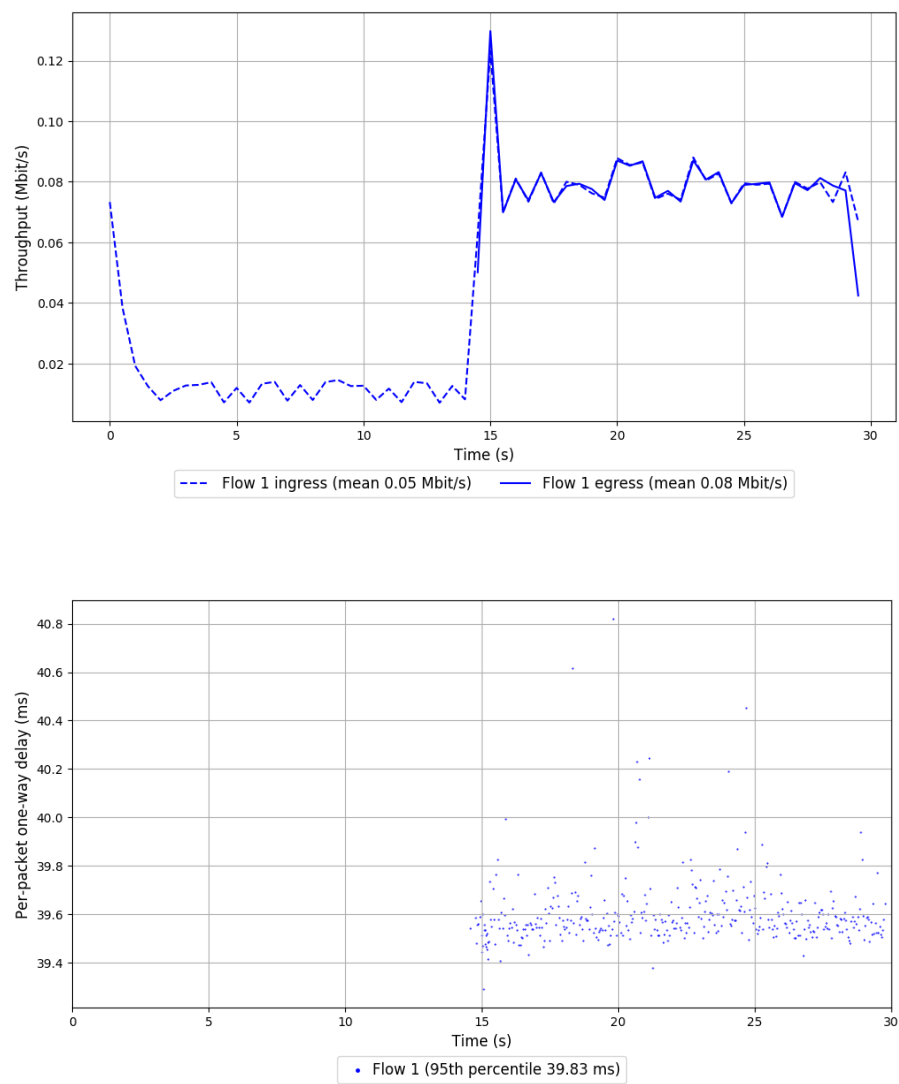
```
Run 5: Statistics of SCReAM

Start at: 2018-04-24 06:43:35
End at: 2018-04-24 06:44:05
Local clock offset: 3.786 ms
Remote clock offset: 8.651 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.561 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.561 ms
Loss rate: 0.64%
```

Run 5: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 39.56 ms)

```
Run 6: Statistics of SCReAM

Start at: 2018-04-24 07:04:50
End at: 2018-04-24 07:05:20
Local clock offset: 3.086 ms
Remote clock offset: 43.727 ms

# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.444 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.444 ms
Loss rate: 0.64%
```

Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 39.44 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-04-24 07:32:17
End at: 2018-04-24 07:32:47
Local clock offset: -2.159 ms
Remote clock offset: 11.978 ms
```
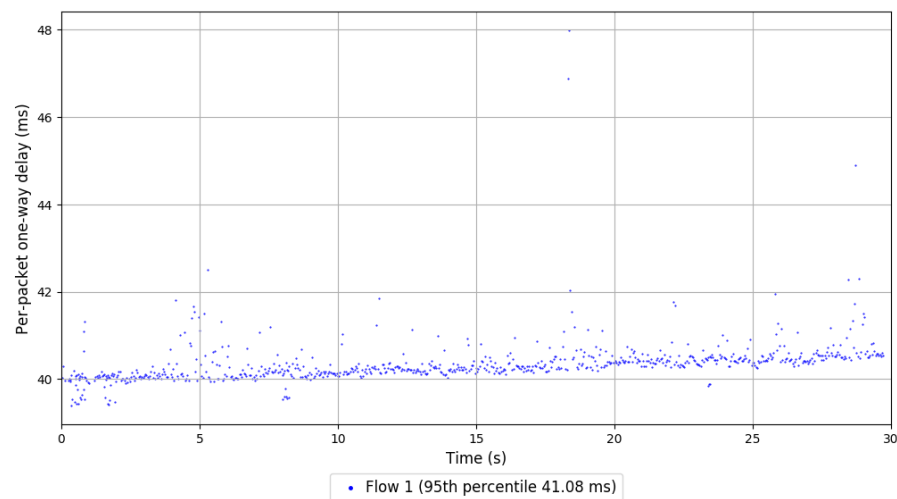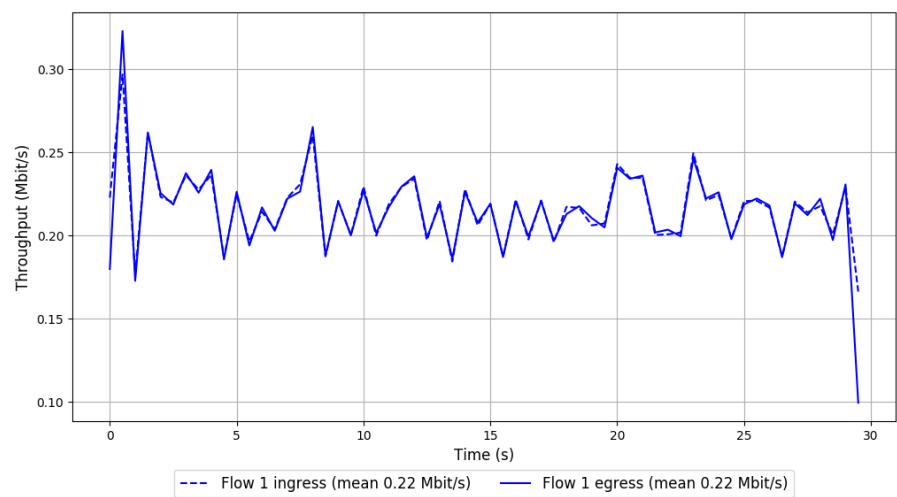
Run 7: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.05 Mbit/s) --- Flow 1 egress (mean 0.08 Mbit/s)

Flow 1 (95th percentile 39.83 ms)

```
Run 8: Statistics of SCReAM

Start at: 2018-04-24 07:53:29
End at: 2018-04-24 07:53:59
Local clock offset: -6.148 ms
Remote clock offset: 24.458 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.081 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.081 ms
Loss rate: 0.64%
```
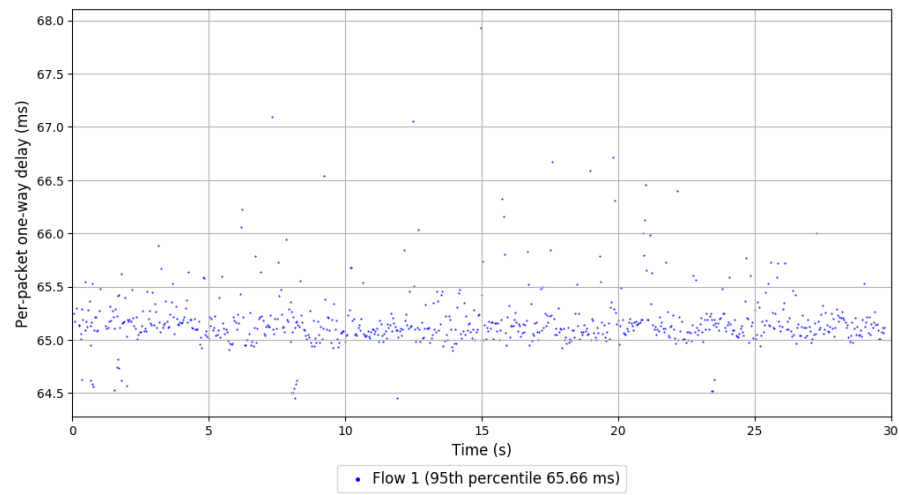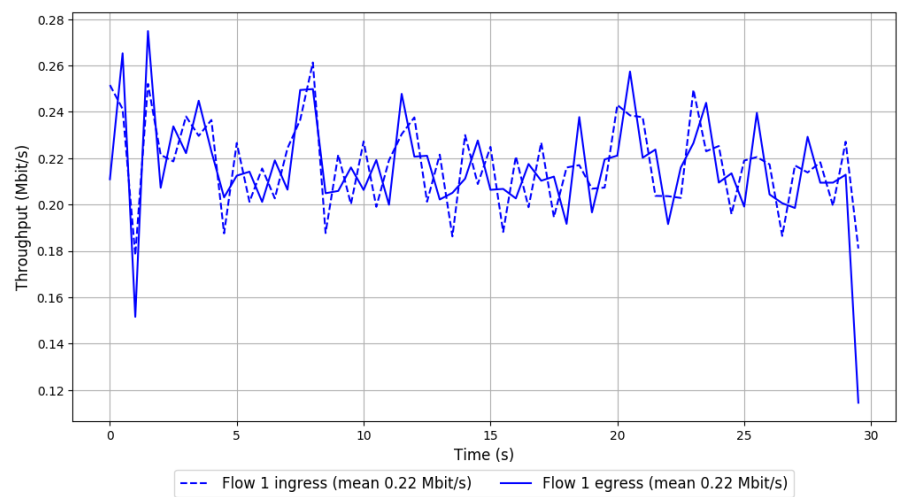
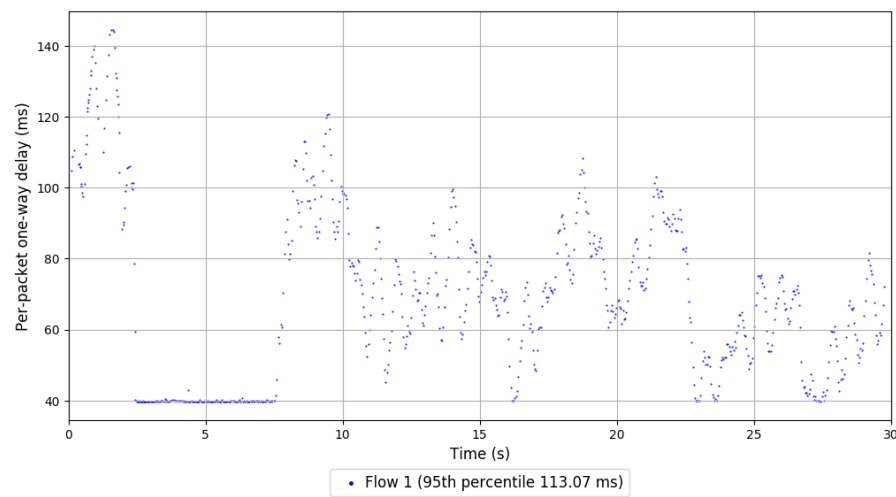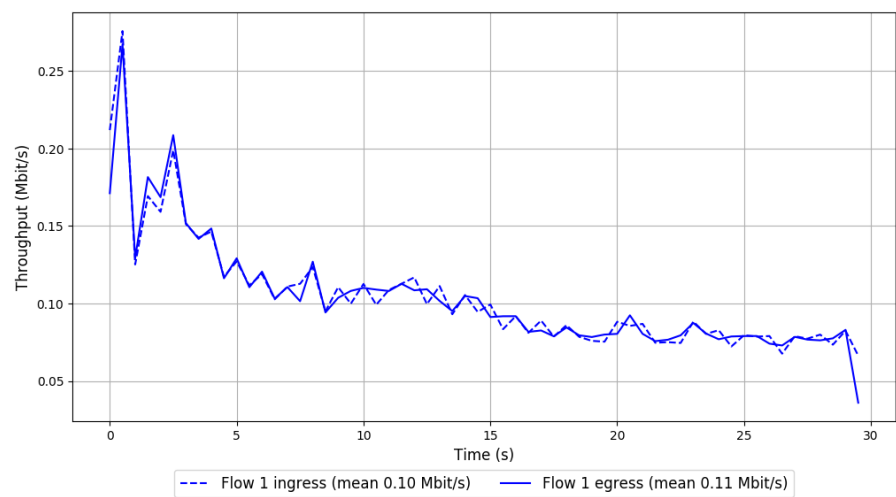# Run 8: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 41.08 ms)

119

```
Run 9: Statistics of SCReAM

Start at: 2018-04-24 08:15:00
End at: 2018-04-24 08:15:30
Local clock offset: -1.375 ms
Remote clock offset: 7.076 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.655 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.655 ms
Loss rate: 0.76%
```
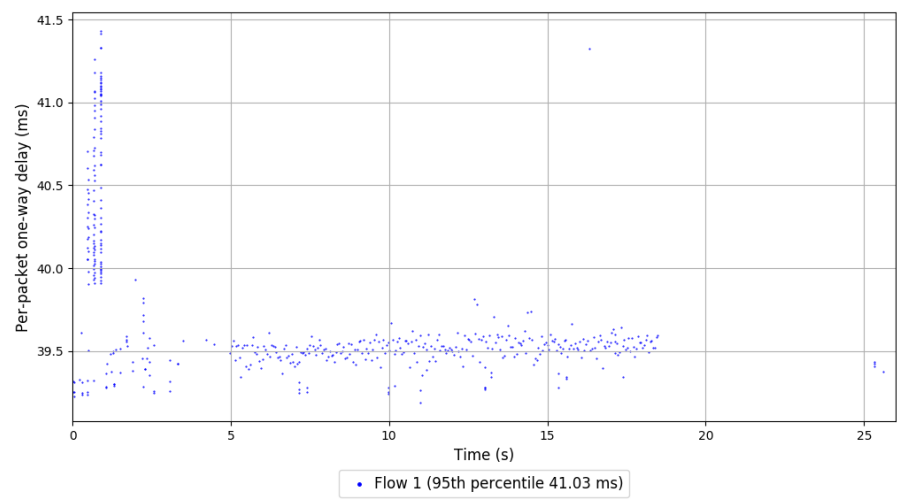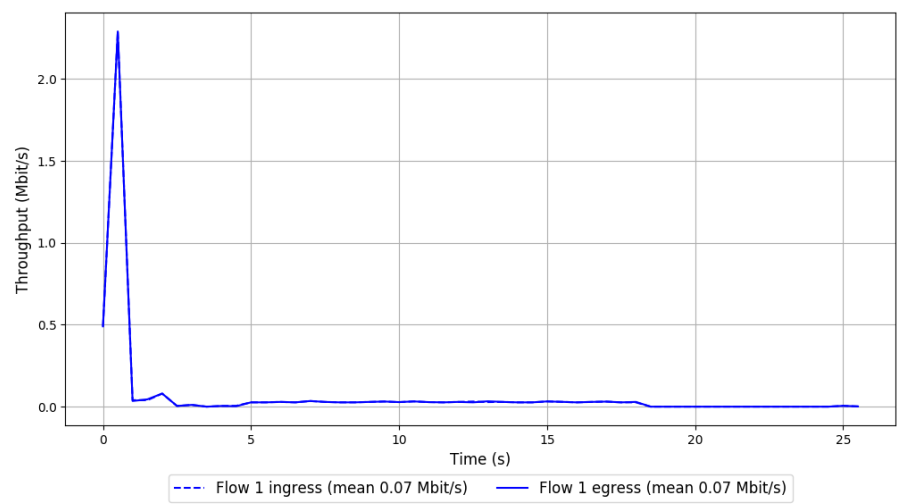
Run 9: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 65.66 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-04-24 08:36:53
End at: 2018-04-24 08:37:23
Local clock offset: -3.019 ms
Remote clock offset: 20.087 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 113.070 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 113.070 ms
Loss rate: 0.60%
```
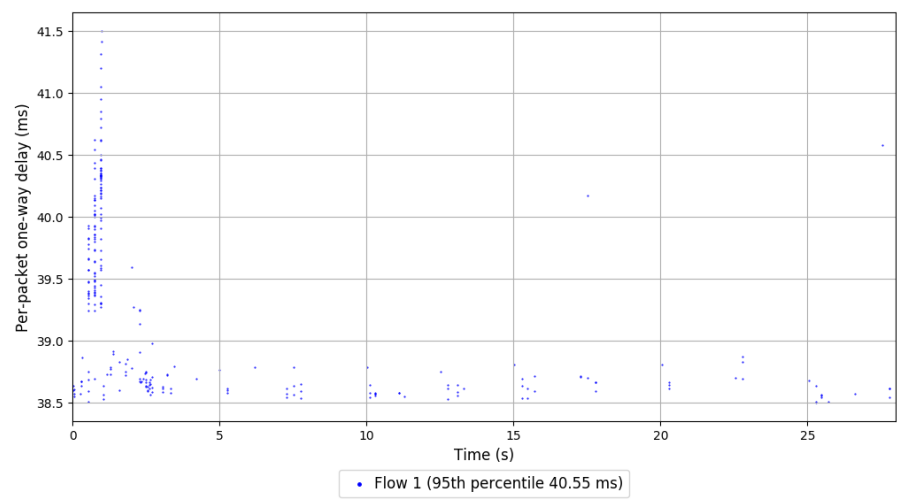
Run 10: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.10 Mbit/s) — Flow 1 egress (mean 0.11 Mbit/s)

Flow 1 (95th percentile 113.07 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2018-04-24 05:17:12
End at: 2018-04-24 05:17:42
Local clock offset: -3.371 ms
Remote clock offset: -1.222 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 41.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 41.027 ms
Loss rate: 0.00%
```
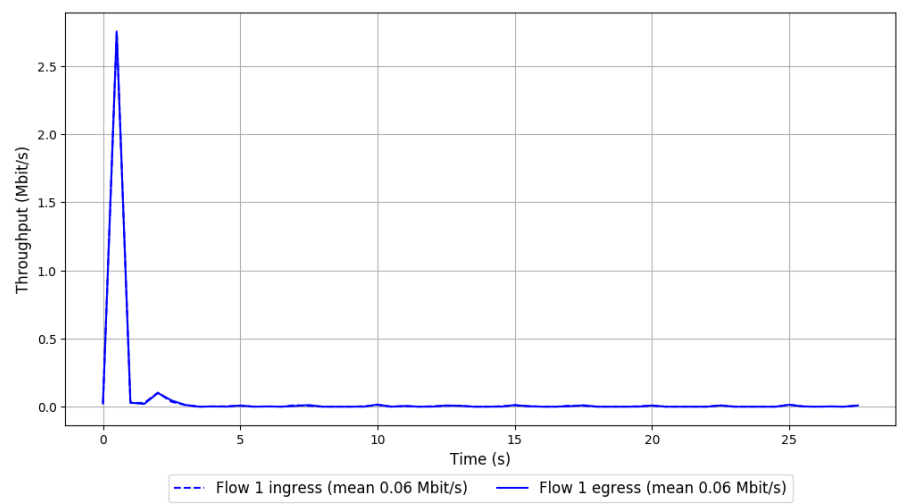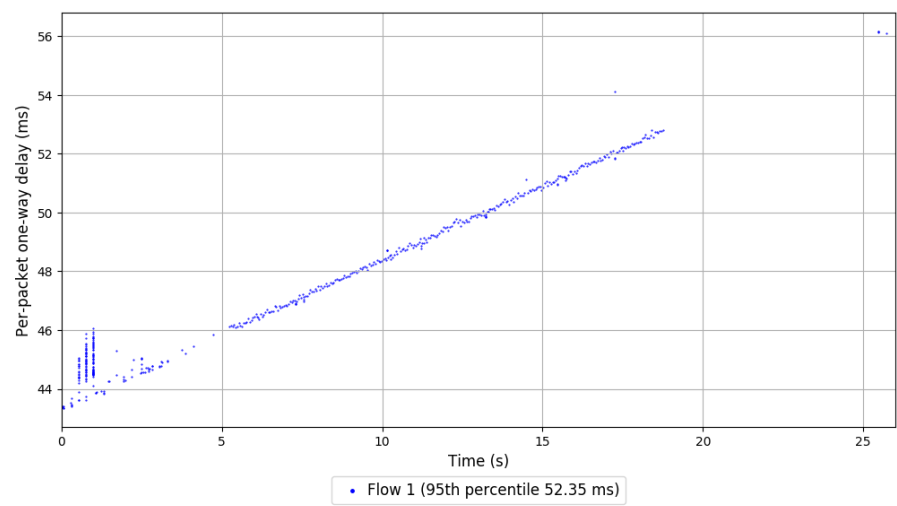
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.07 Mbit/s) — Flow 1 egress (mean 0.07 Mbit/s)

Flow 1 (95th percentile 41.03 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2018-04-24 05:38:27
End at: 2018-04-24 05:38:57
Local clock offset: -1.248 ms
Remote clock offset: 0.92 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.545 ms
Loss rate: 0.00%
```
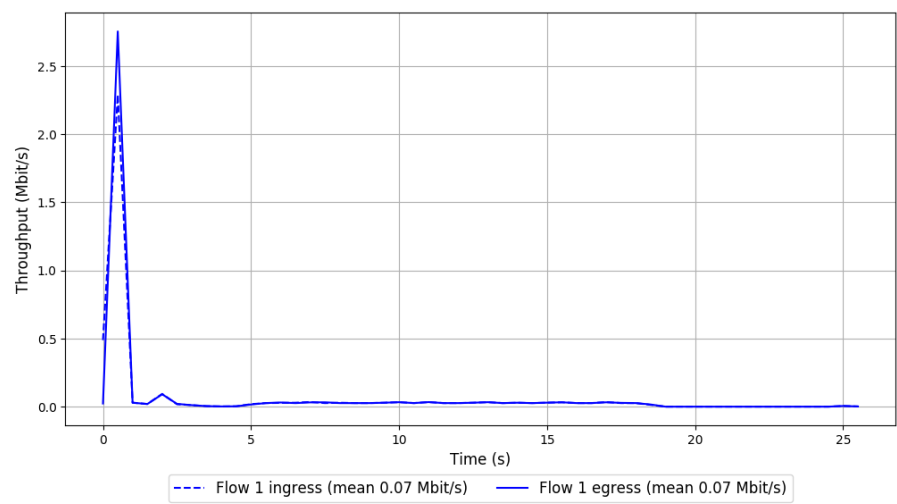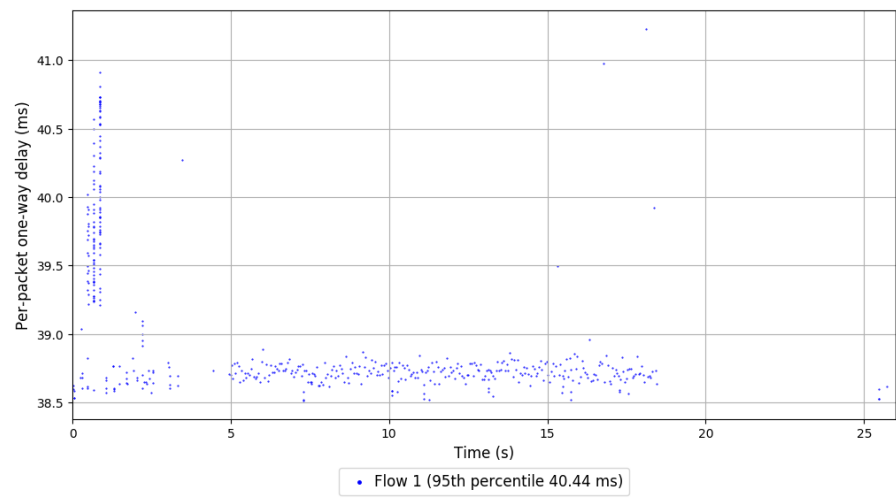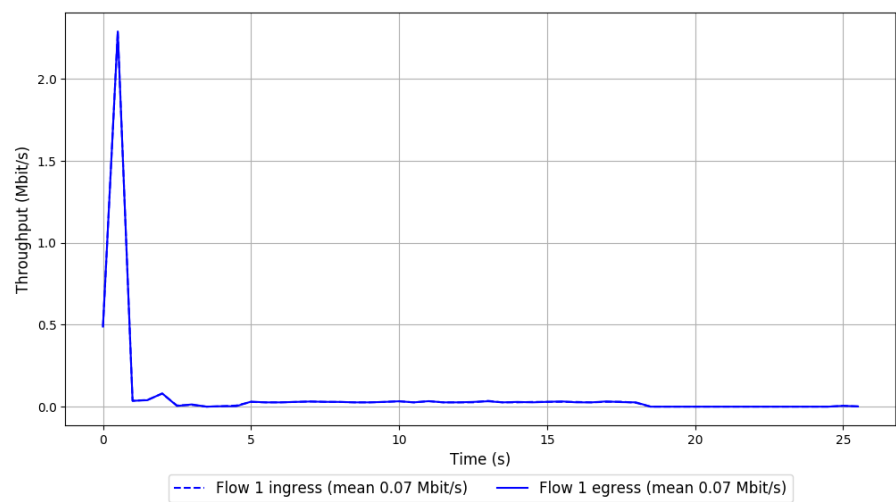
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-04-24 05:59:51
End at: 2018-04-24 06:00:21
Local clock offset: 1.84 ms
Remote clock offset: 1.207 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 52.350 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 52.350 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-04-24 06:21:03
End at: 2018-04-24 06:21:33
Local clock offset: 2.804 ms
Remote clock offset: -11.935 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 40.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 40.444 ms
Loss rate: 0.00%
```
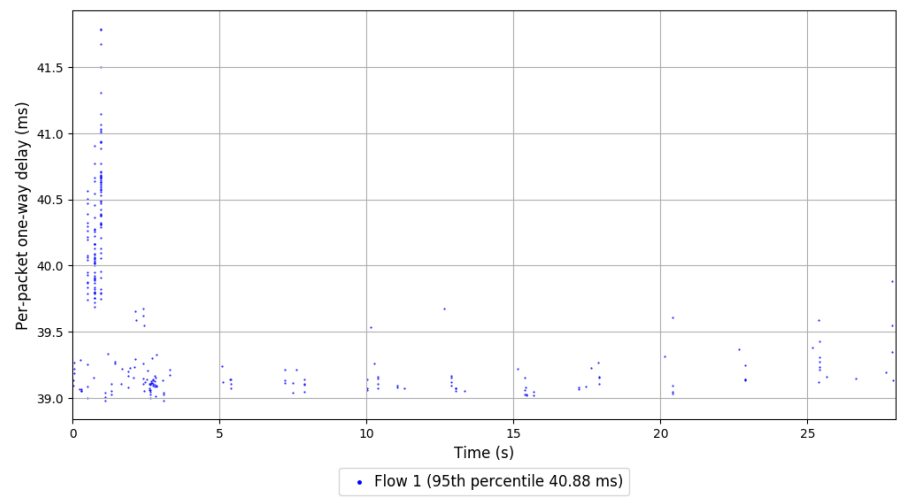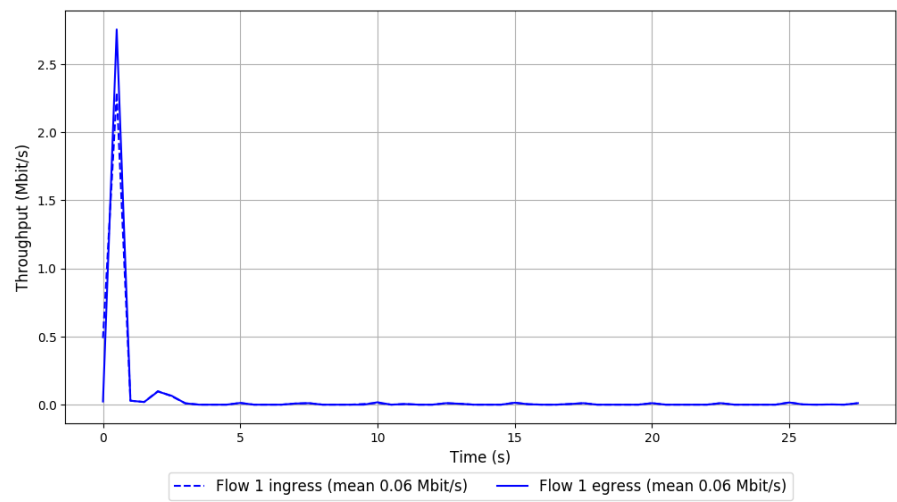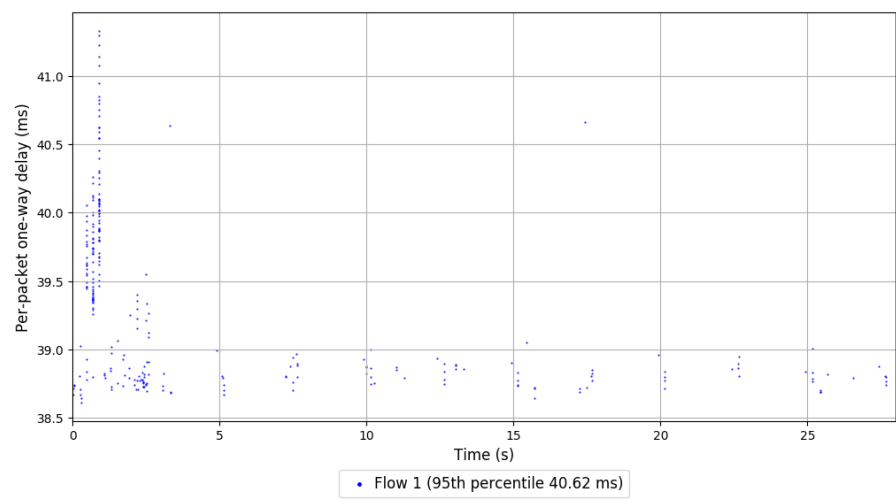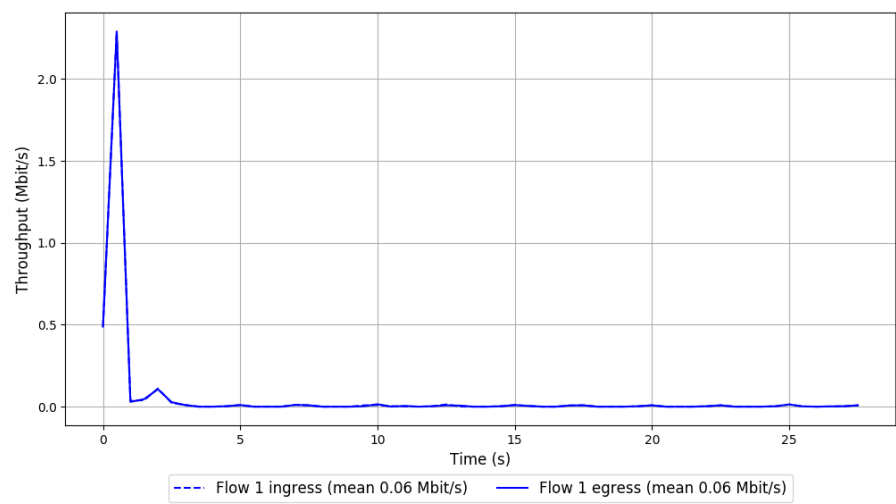
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-04-24 06:42:22
End at: 2018-04-24 06:42:53
Local clock offset: 3.787 ms
Remote clock offset: 8.575 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.884 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-04-24 07:03:38
End at: 2018-04-24 07:04:08
Local clock offset: 3.19 ms
Remote clock offset: 43.606 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.624 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.624 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link

Run 7: Statistics of WebRTC media

/home/ubuntu/pantheon_data/2018-04-24T05-05-China-to-AWS-Korea-10-runs/webrtc_stats_run7.log

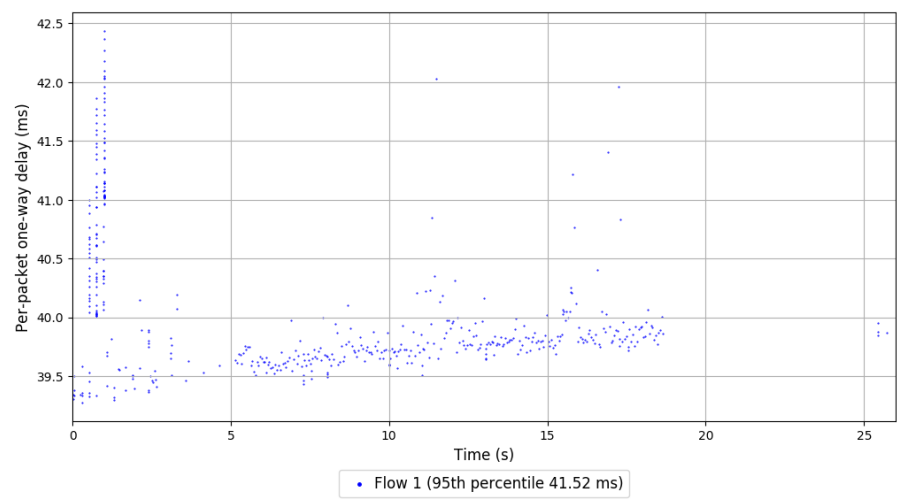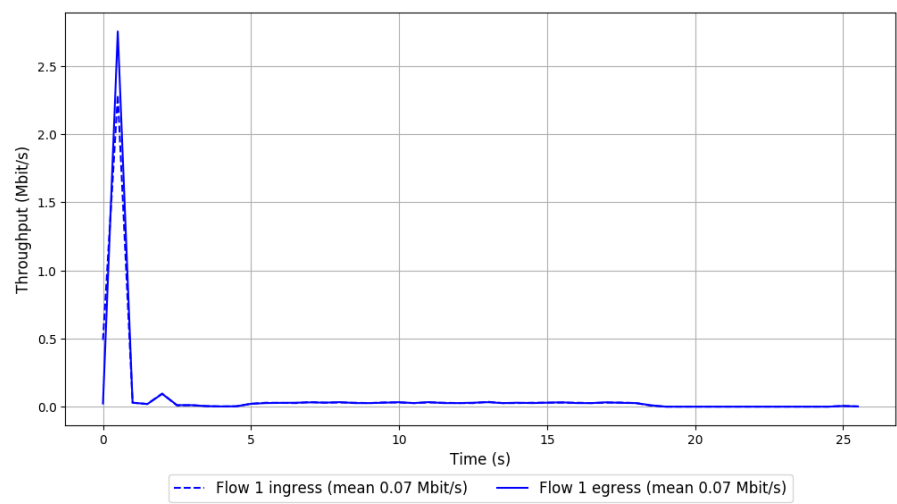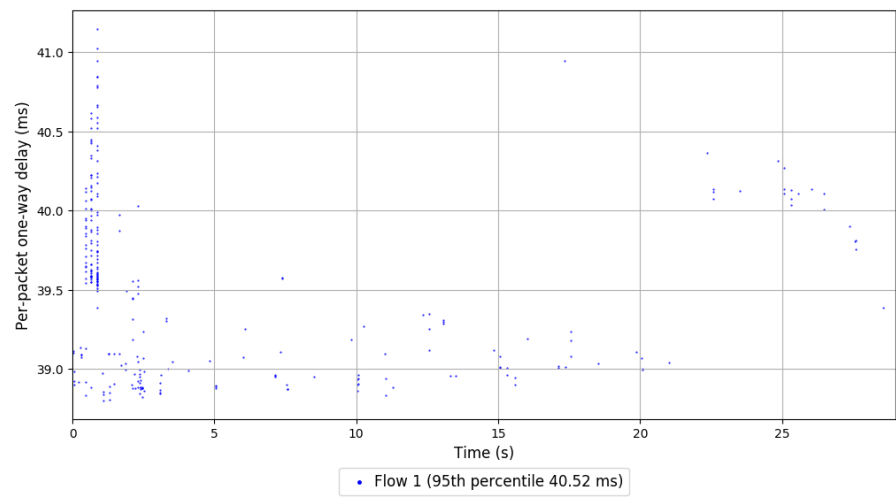Run 7: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

```
Run 8: Statistics of WebRTC media

Start at: 2018-04-24 07:52:16
End at: 2018-04-24 07:52:46
Local clock offset: -5.829 ms
Remote clock offset: 23.175 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 41.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 41.522 ms
Loss rate: 0.00%
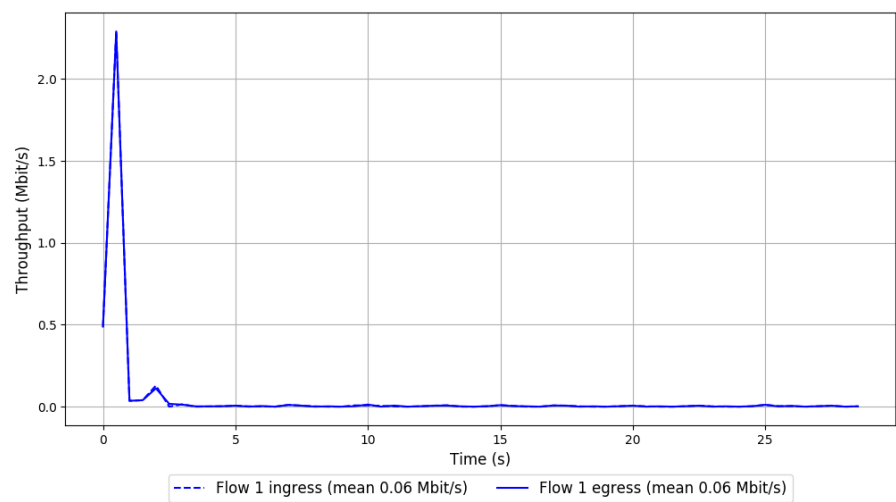```
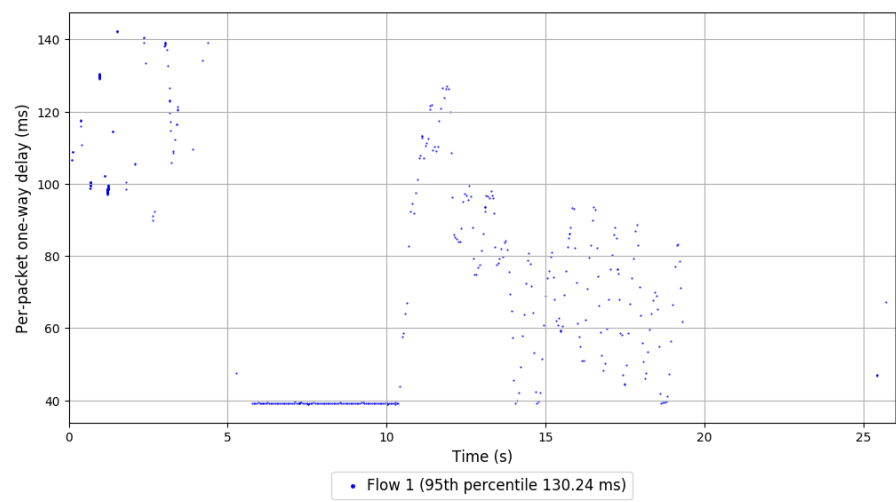
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-04-24 08:13:47
End at: 2018-04-24 08:14:17
Local clock offset: -1.582 ms
Remote clock offset: 34.492 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.522 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.06 Mbit/s) --- Flow 1 egress (mean 0.06 Mbit/s)
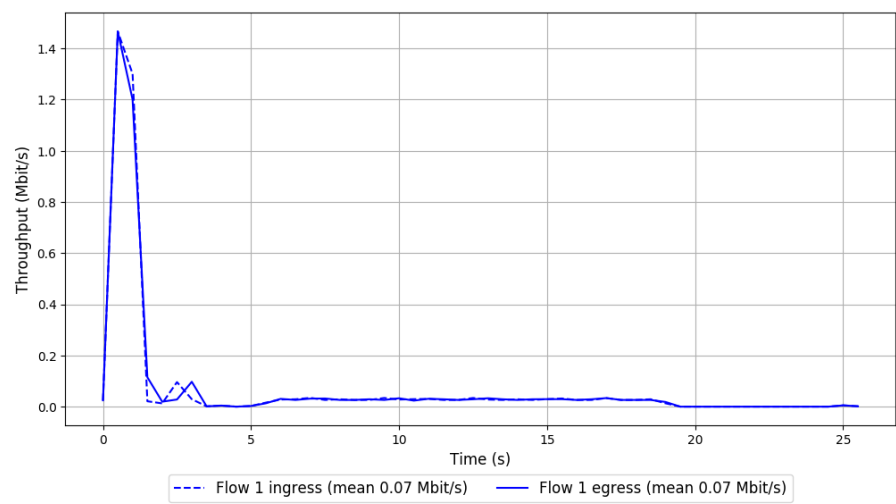

Flow 1 (95th percentile 40.52 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2018-04-24 08:35:40
End at: 2018-04-24 08:36:10
Local clock offset: -2.756 ms
Remote clock offset: 19.875 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 130.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 130.237 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-04-24 05:25:56
End at: 2018-04-24 05:26:27
Local clock offset: -2.248 ms
Remote clock offset: -1.09 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 41.716 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 41.716 ms
Loss rate: 0.88%
```
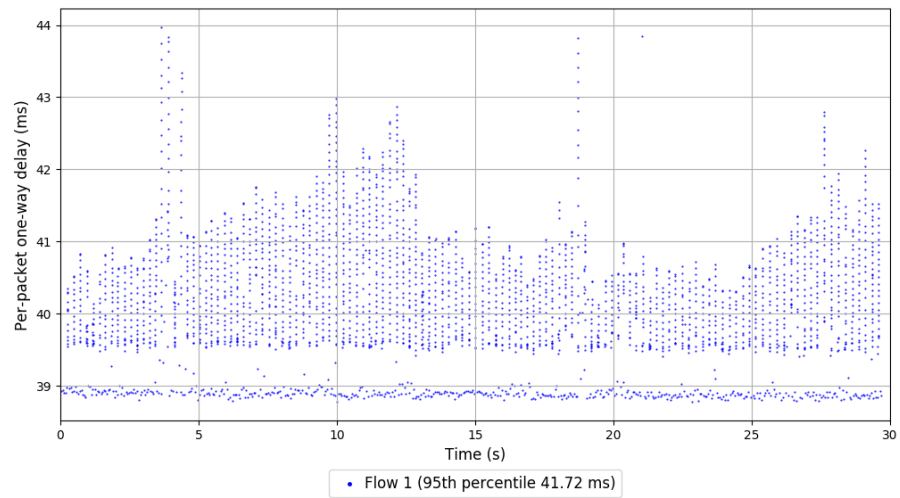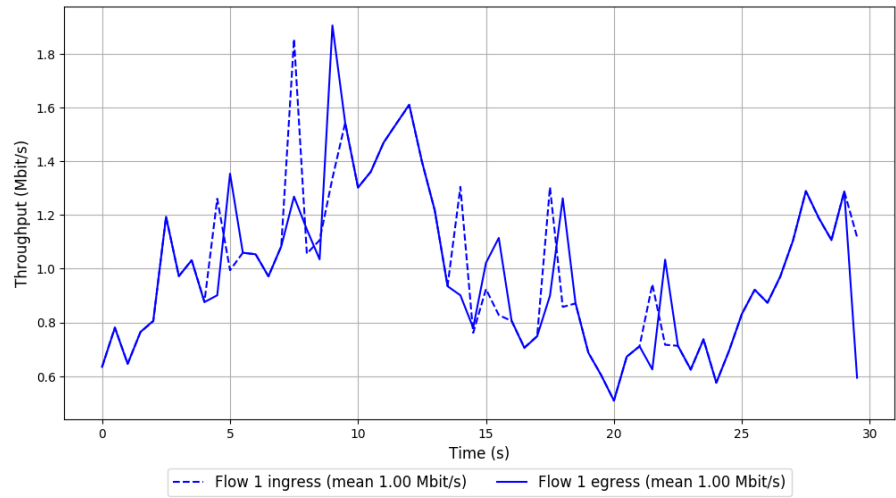
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-04-24 05:47:13
End at: 2018-04-24 05:47:43
Local clock offset: 0.907 ms
Remote clock offset: 1.972 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 43.022 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 43.022 ms
Loss rate: 1.34%
```
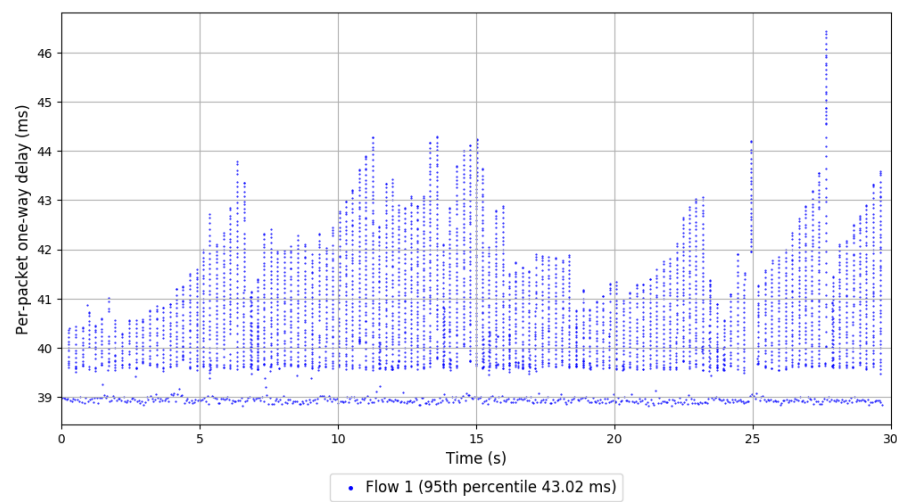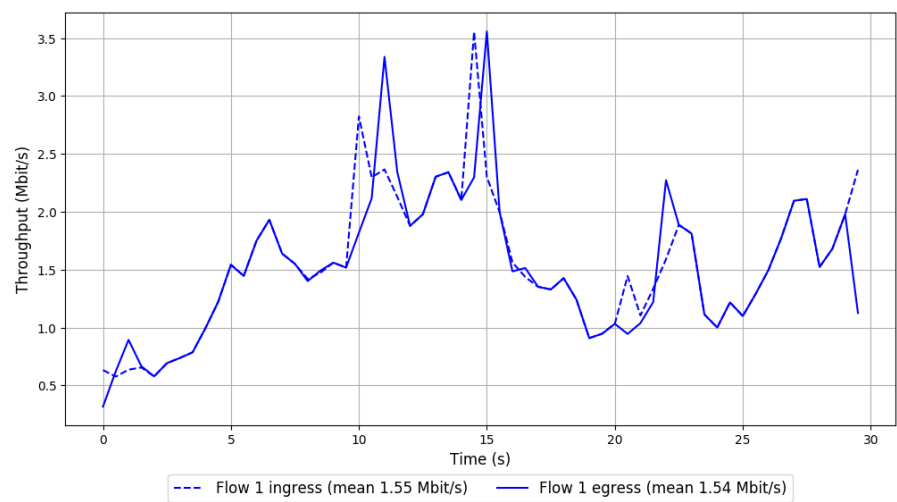
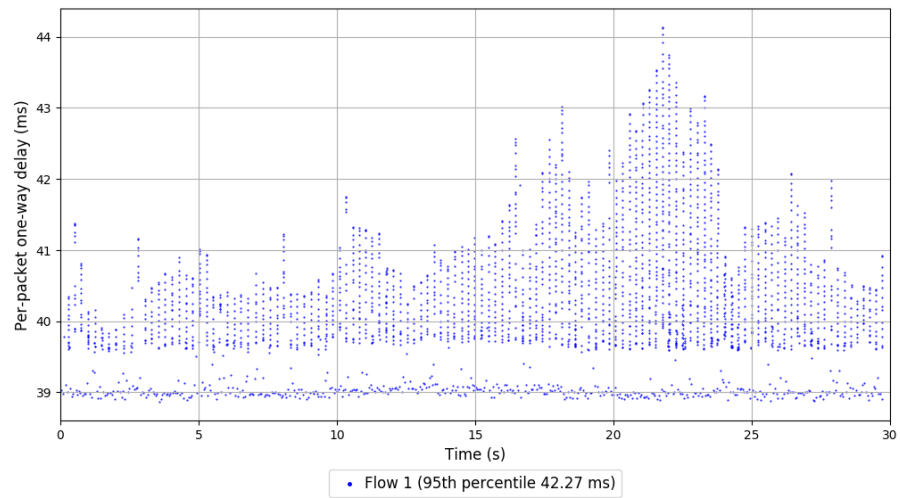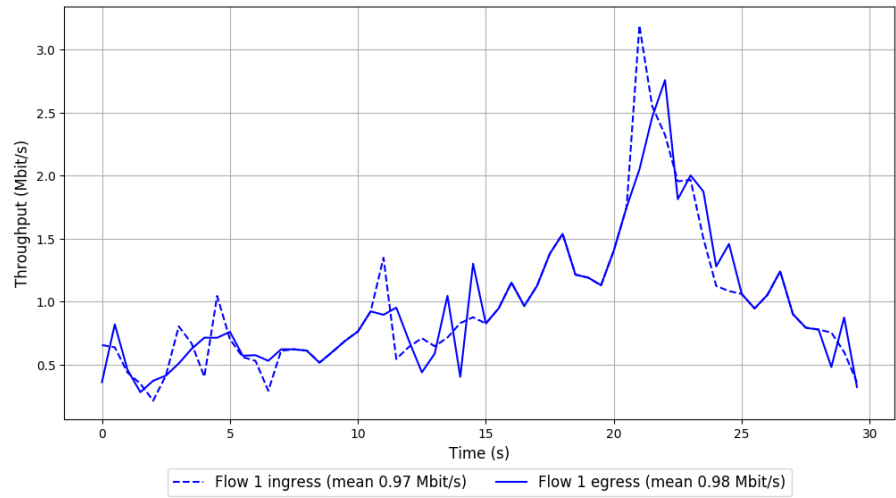Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-04-24 06:08:33
End at: 2018-04-24 06:09:03
Local clock offset: 2.403 ms
Remote clock offset: 30.654 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 42.272 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 42.272 ms
Loss rate: 0.07%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 0.97 Mbit/s)   Flow 1 egress (mean 0.98 Mbit/s)

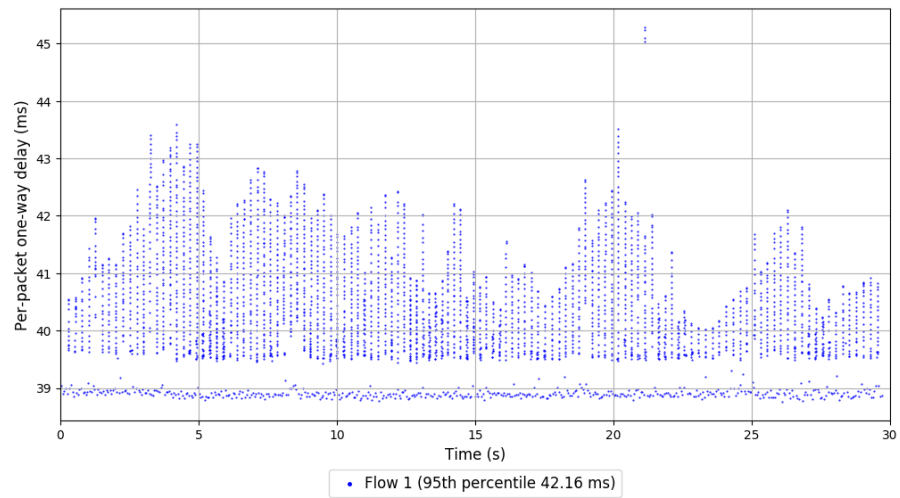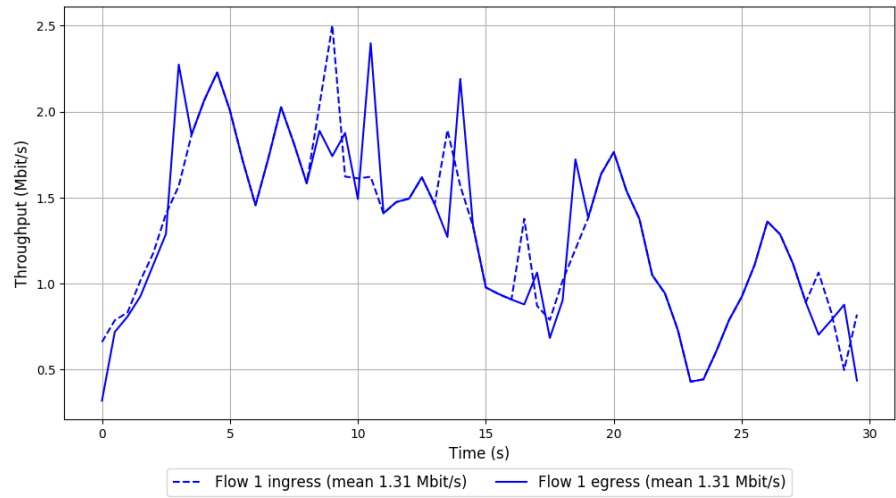Flow 1 (95th percentile 42.27 ms)

```
Run 4: Statistics of Sprout

Start at: 2018-04-24 06:29:48
End at: 2018-04-24 06:30:18
Local clock offset: 3.081 ms
Remote clock offset: -11.405 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 42.160 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 42.160 ms
Loss rate: 0.53%
```

Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-04-24 06:51:07
End at: 2018-04-24 06:51:37
Local clock offset: 3.423 ms
Remote clock offset: 9.145 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 45.535 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 45.535 ms
Loss rate: 1.05%
```
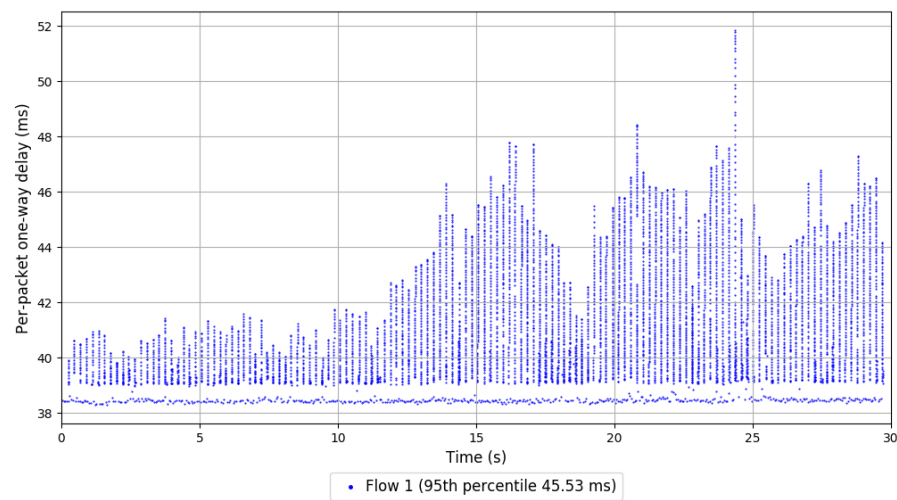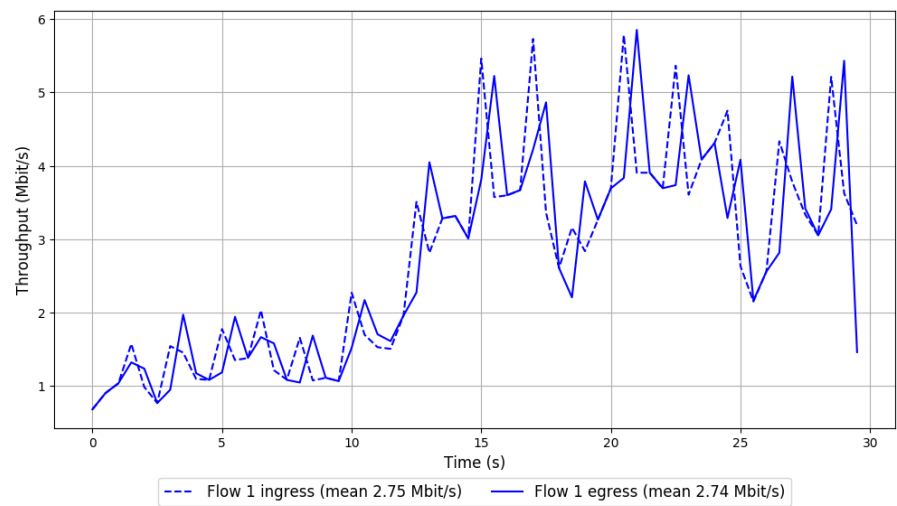
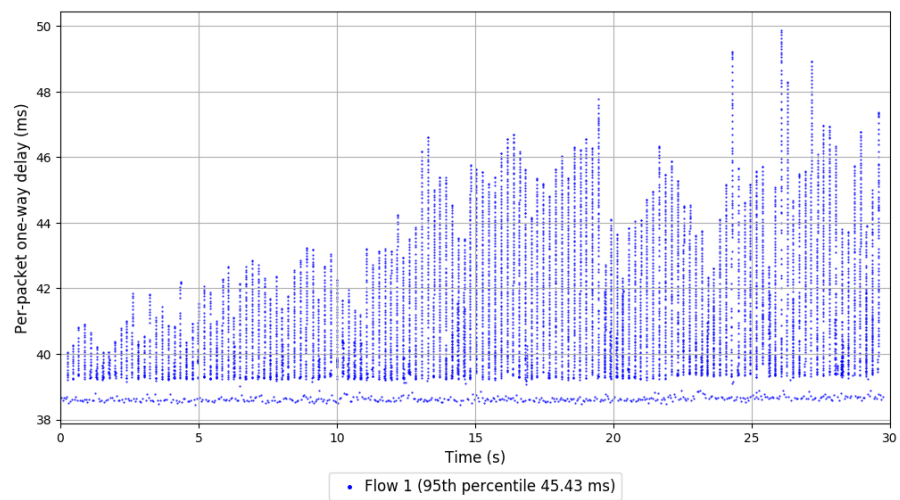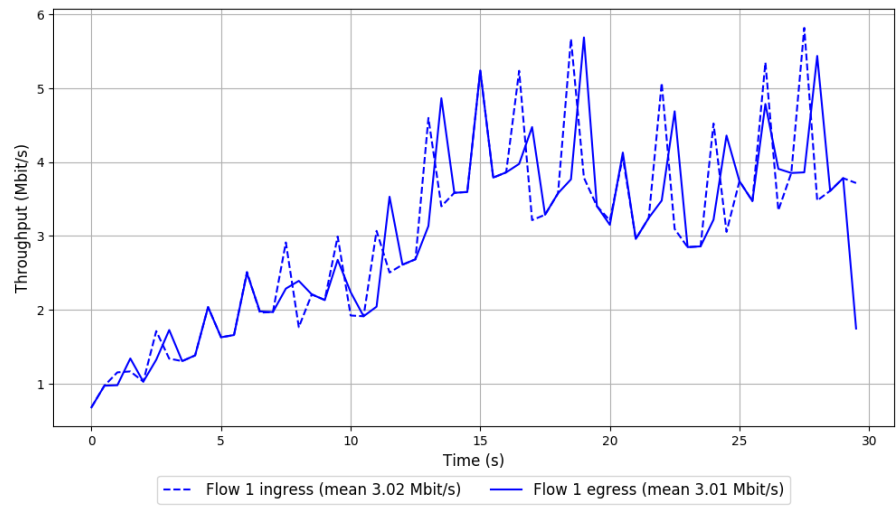Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-04-24 07:12:22
End at: 2018-04-24 07:12:52
Local clock offset: 3.005 ms
Remote clock offset: 44.053 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 45.432 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 45.432 ms
Loss rate: 1.09%
```

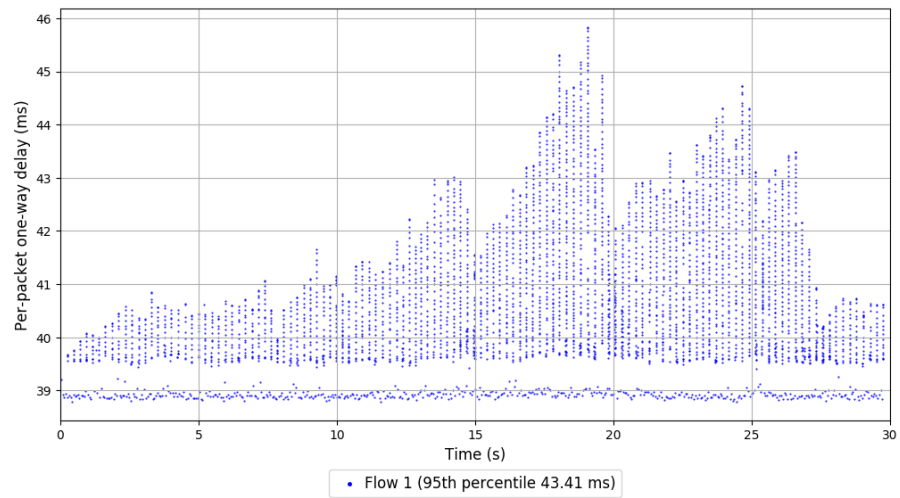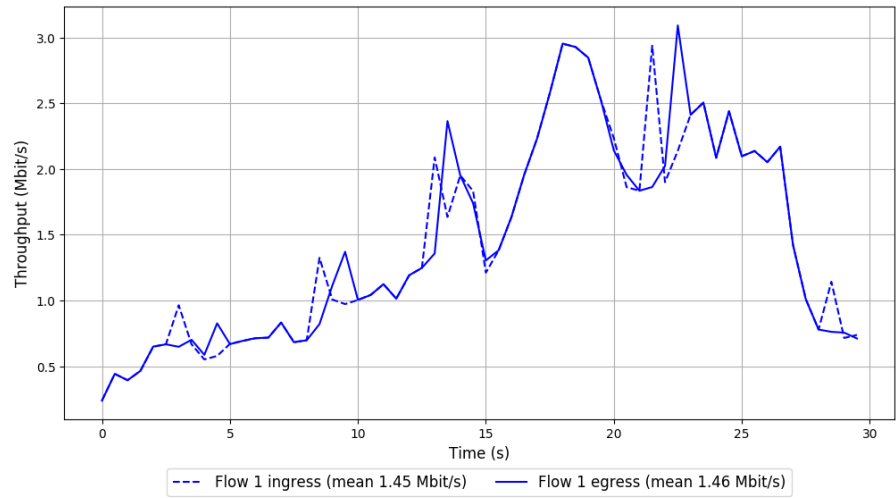Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-04-24 07:39:44
End at: 2018-04-24 07:40:14
Local clock offset: -4.082 ms
Remote clock offset: 10.46 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 43.409 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 43.409 ms
Loss rate: 0.42%
```

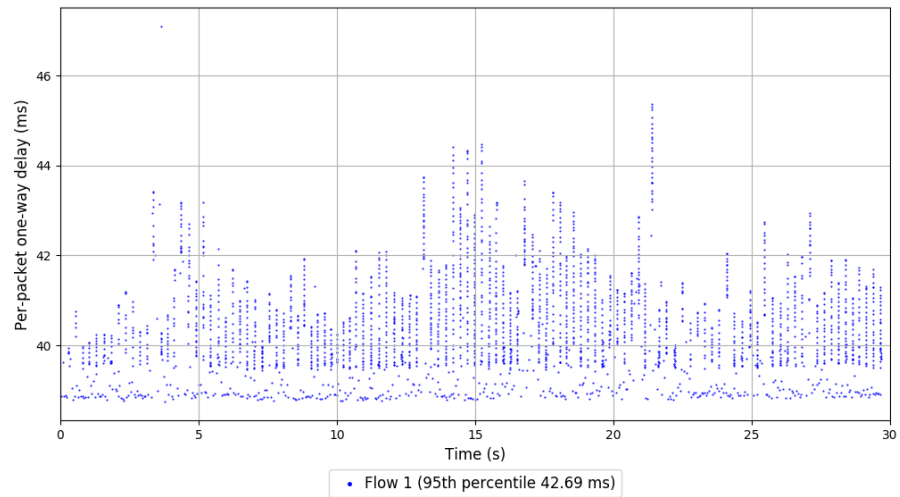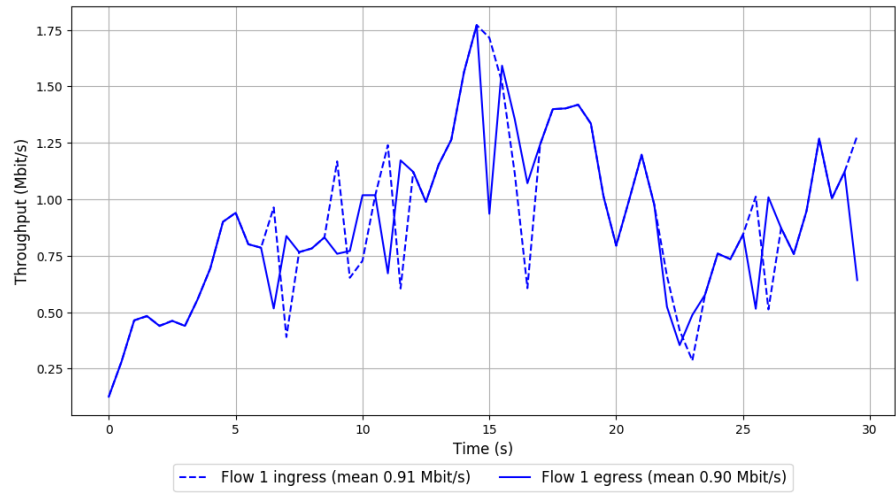Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-04-24 08:01:00
End at: 2018-04-24 08:01:30
Local clock offset: -3.143 ms
Remote clock offset: 30.43 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 42.689 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 42.689 ms
Loss rate: 1.18%
```
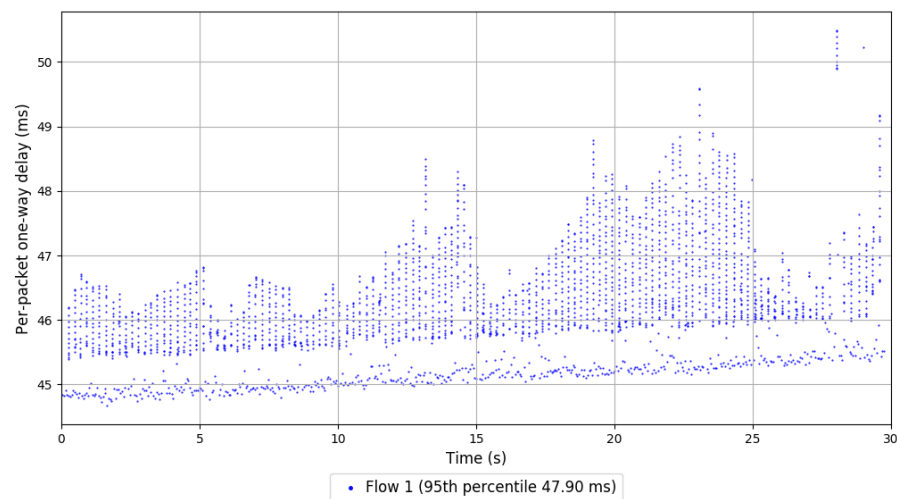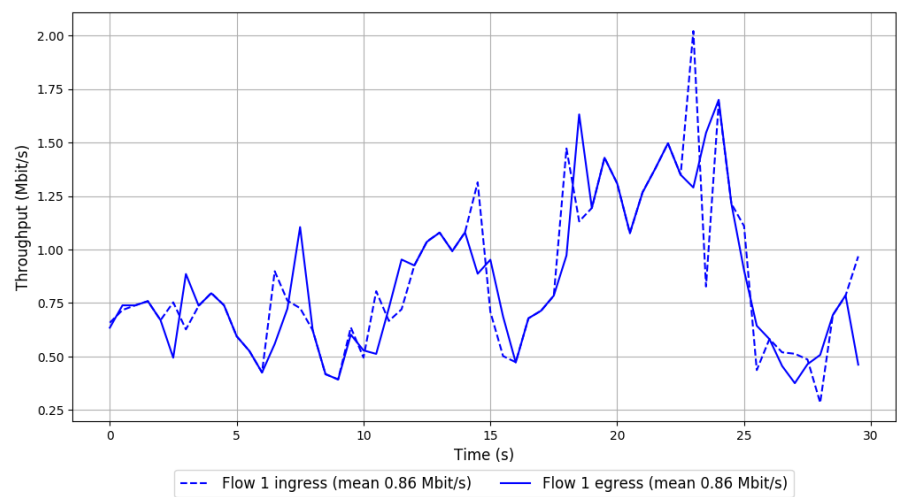
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-04-24 08:22:30
End at: 2018-04-24 08:23:00
Local clock offset: -1.231 ms
Remote clock offset: 29.387 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 47.899 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 47.899 ms
Loss rate: 0.98%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-04-24 08:44:35
End at: 2018-04-24 08:45:05
Local clock offset: -3.95 ms
Remote clock offset: 22.778 ms


# Below is generated by plot.py at 2018-04-24 12:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 43.721 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 43.721 ms
Loss rate: 1.23%
```
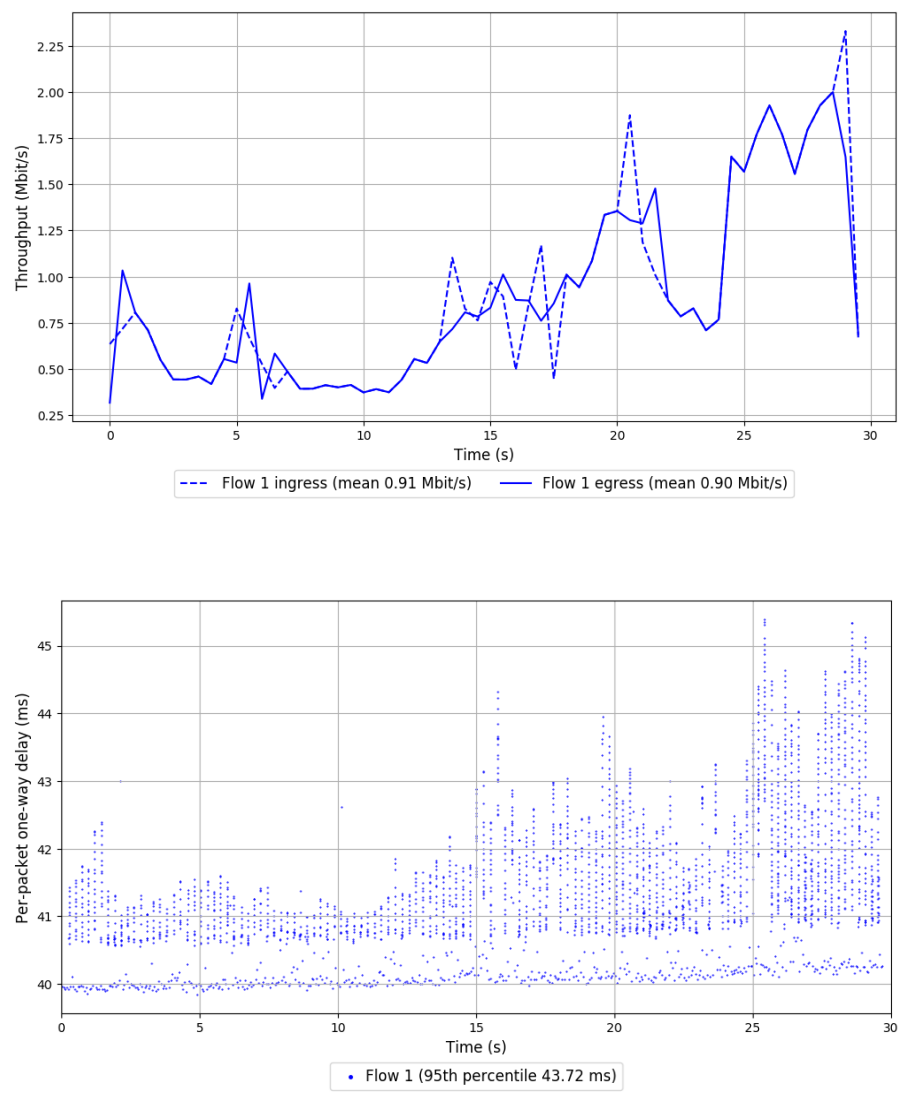
Run 10: Report of Sprout — Data Link

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

Start at: 2018-04-24 05:24:39
End at: 2018-04-24 05:25:09
Local clock offset: -2.533 ms
Remote clock offset: -1.198 ms


# Below is generated by plot.py at 2018-04-24 12:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.73 Mbit/s
95th percentile per-packet one-way delay: 57.074 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 50.73 Mbit/s
95th percentile per-packet one-way delay: 57.074 ms
Loss rate: 1.27%
```
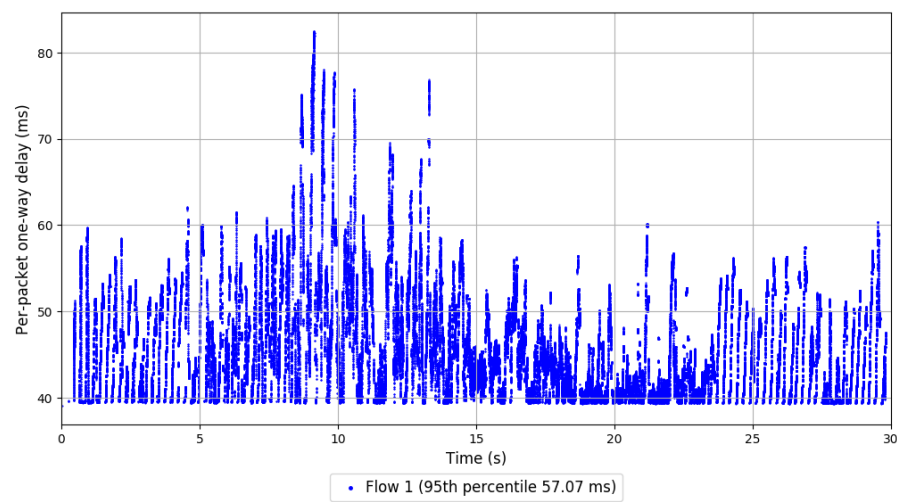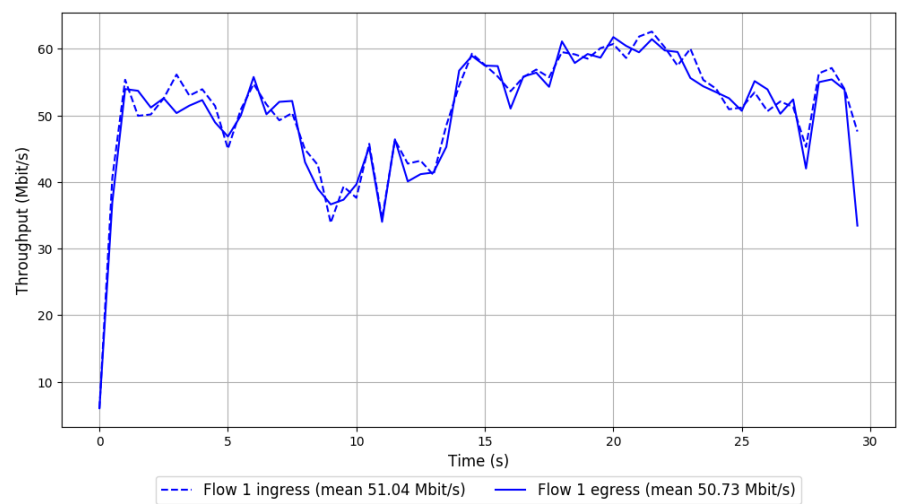
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 51.04 Mbit/s) --- Flow 1 egress (mean 50.73 Mbit/s)

• Flow 1 (95th percentile 57.07 ms)

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

Start at: 2018-04-24 05:45:55
End at: 2018-04-24 05:46:25
Local clock offset: 0.616 ms
Remote clock offset: 1.795 ms


# Below is generated by plot.py at 2018-04-24 12:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 49.542 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 49.542 ms
Loss rate: 0.94%
```
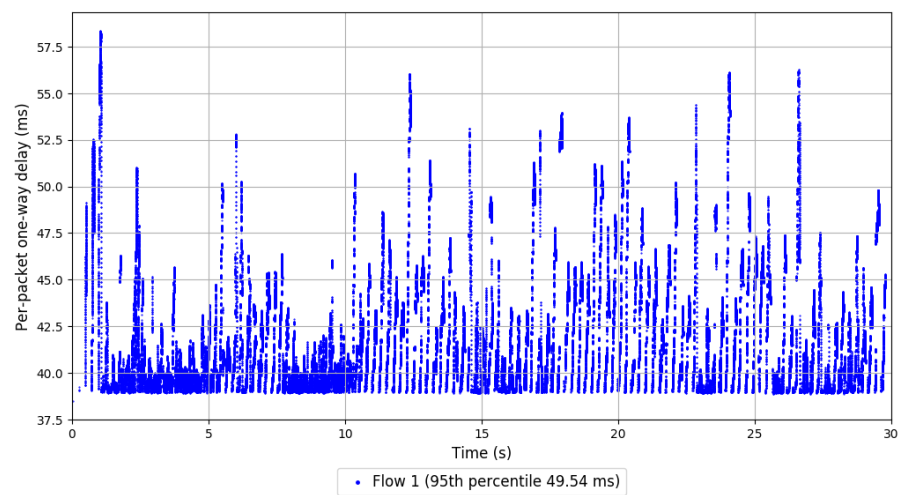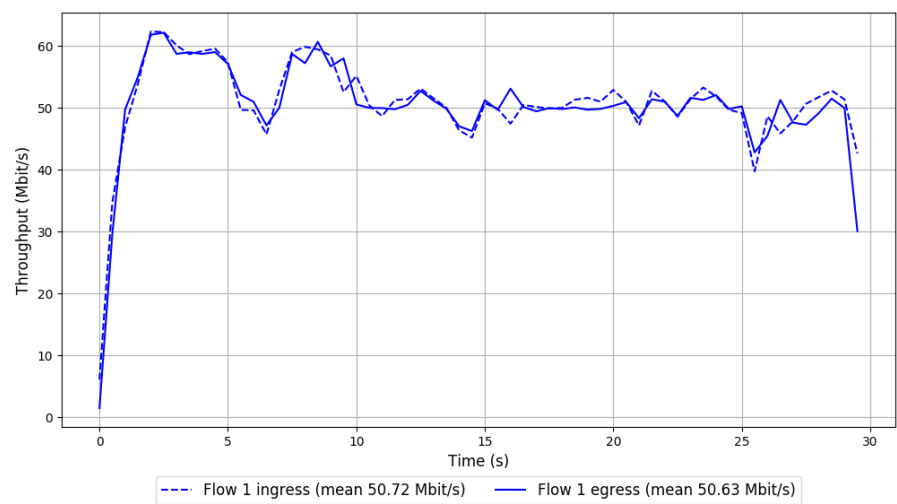
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-04-24 06:07:16
End at: 2018-04-24 06:07:46
Local clock offset: 2.084 ms
Remote clock offset: 30.589 ms


# Below is generated by plot.py at 2018-04-24 12:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.07 Mbit/s
95th percentile per-packet one-way delay: 53.055 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 44.07 Mbit/s
95th percentile per-packet one-way delay: 53.055 ms
Loss rate: 1.13%
```
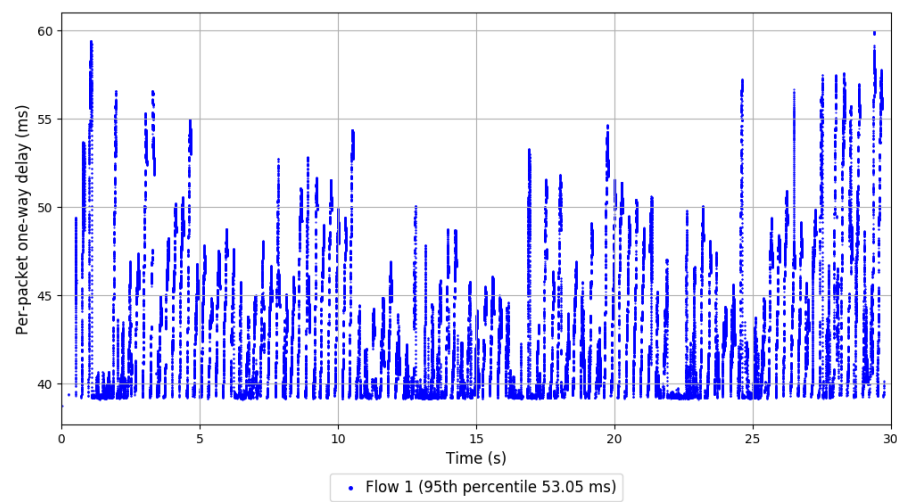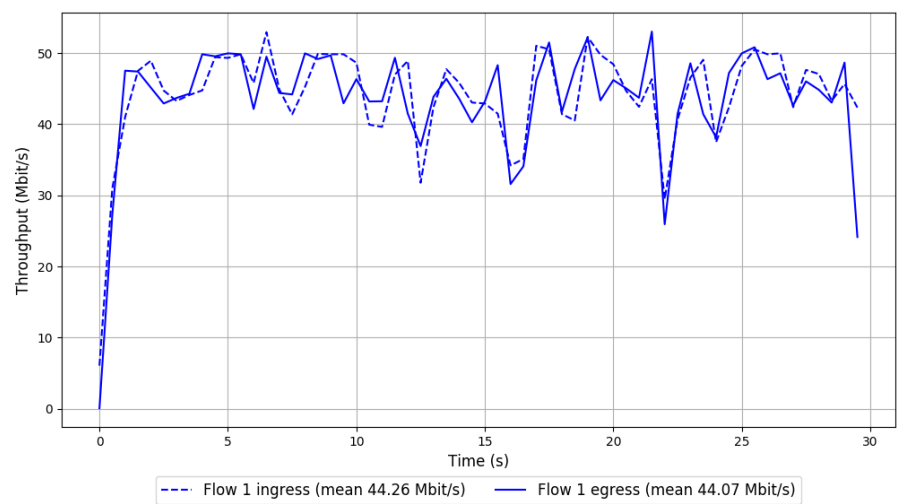
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 44.26 Mbit/s)   Flow 1 egress (mean 44.07 Mbit/s)

Flow 1 (95th percentile 53.05 ms)

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

Start at: 2018-04-24 06:28:31
End at: 2018-04-24 06:29:01
Local clock offset: 3.278 ms
Remote clock offset: -11.608 ms


# Below is generated by plot.py at 2018-04-24 12:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.43 Mbit/s
95th percentile per-packet one-way delay: 53.347 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 47.43 Mbit/s
95th percentile per-packet one-way delay: 53.347 ms
Loss rate: 1.04%
```
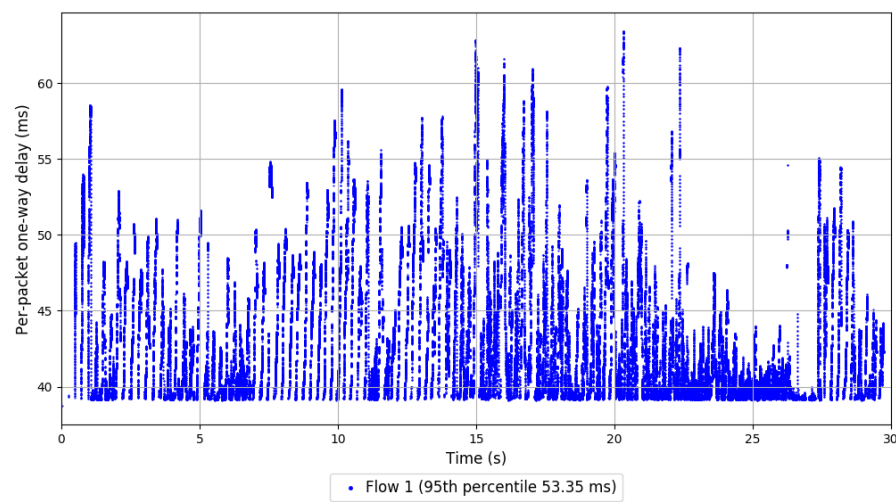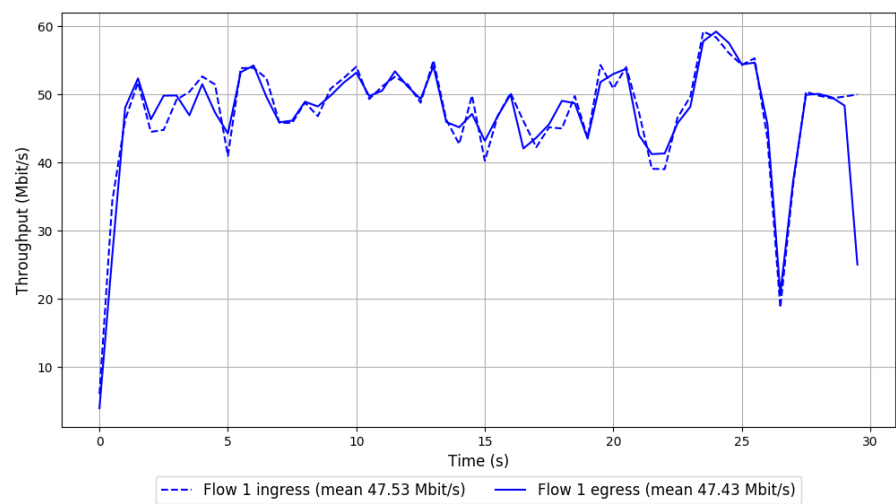
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-04-24 06:49:49
End at: 2018-04-24 06:50:19
Local clock offset: 3.496 ms
Remote clock offset: 9.024 ms


# Below is generated by plot.py at 2018-04-24 12:28:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.56 Mbit/s
95th percentile per-packet one-way delay: 53.527 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 57.56 Mbit/s
95th percentile per-packet one-way delay: 53.527 ms
Loss rate: 0.99%
```
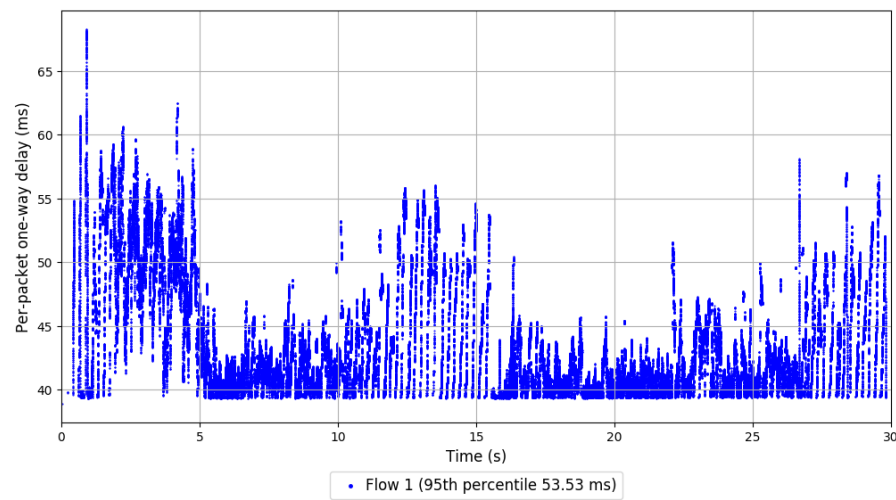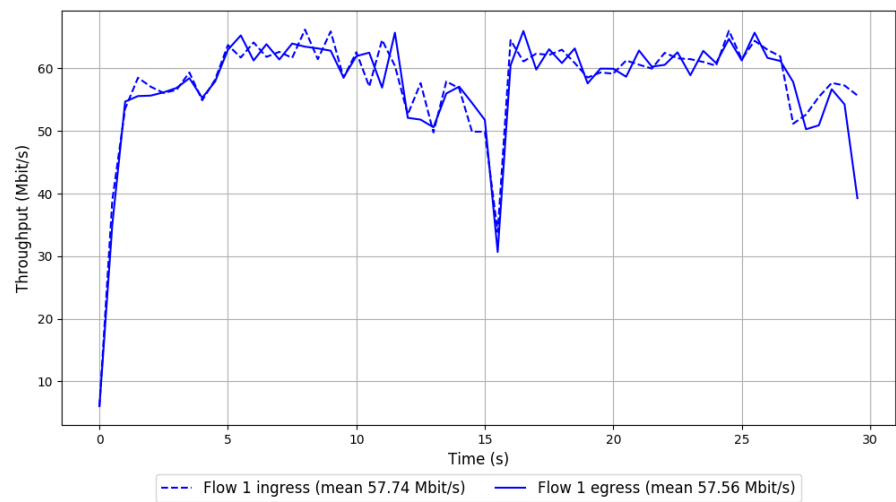
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 57.74 Mbit/s) --- Flow 1 egress (mean 57.56 Mbit/s)

Flow 1 (95th percentile 53.53 ms)

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

Start at: 2018-04-24 07:11:05
End at: 2018-04-24 07:11:35
Local clock offset: 3.144 ms
Remote clock offset: 44.083 ms


# Below is generated by plot.py at 2018-04-24 12:29:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 54.199 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 54.199 ms
Loss rate: 1.34%
```
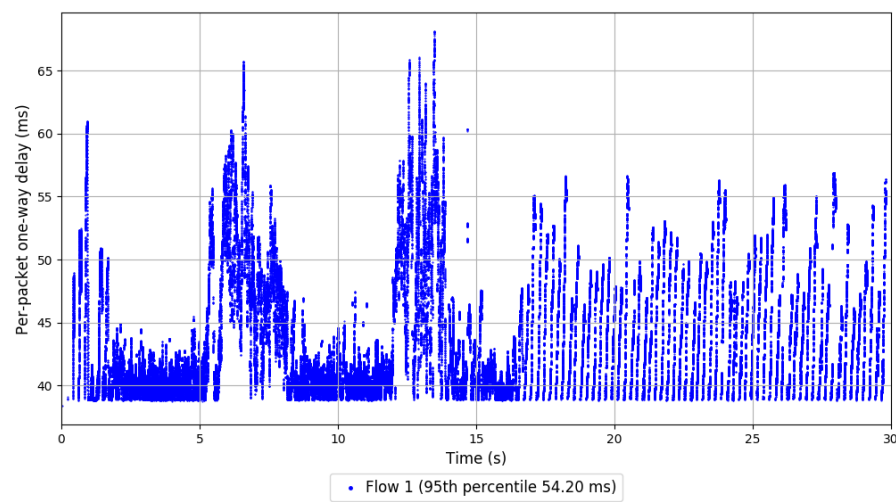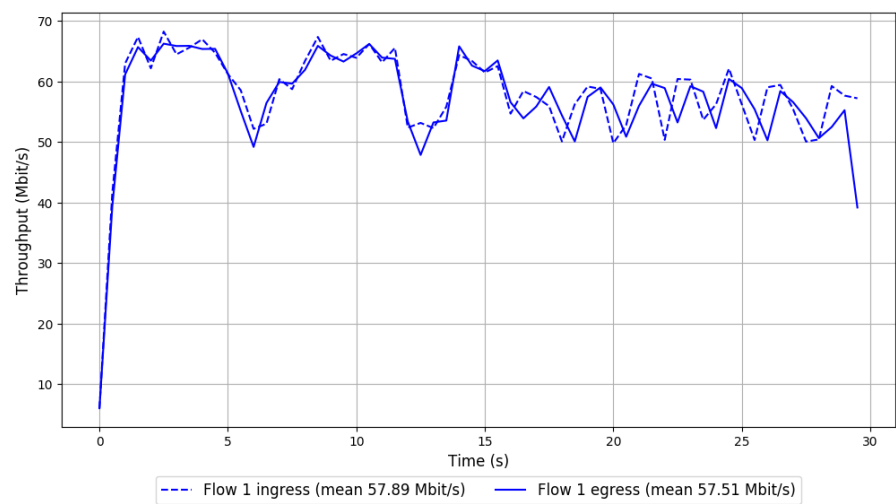
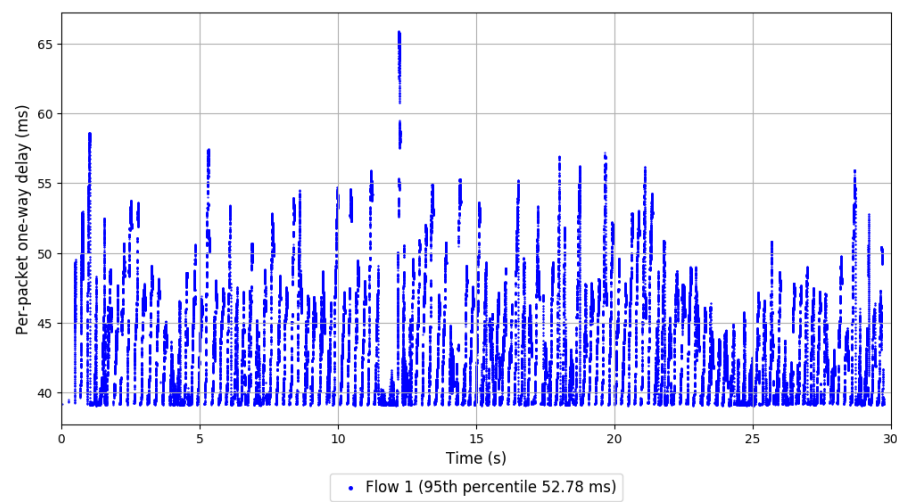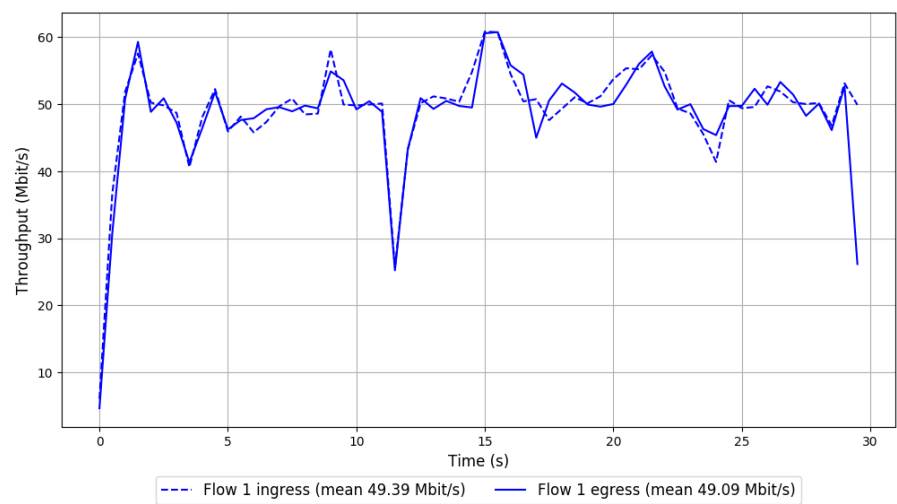Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-04-24 07:38:27
End at: 2018-04-24 07:38:57
Local clock offset: -3.956 ms
Remote clock offset: 10.782 ms


# Below is generated by plot.py at 2018-04-24 12:29:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 52.781 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 52.781 ms
Loss rate: 1.20%
```

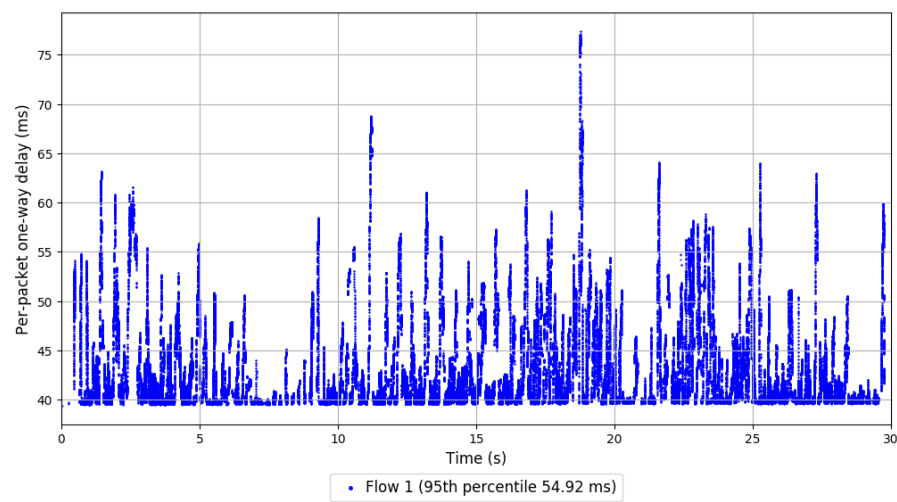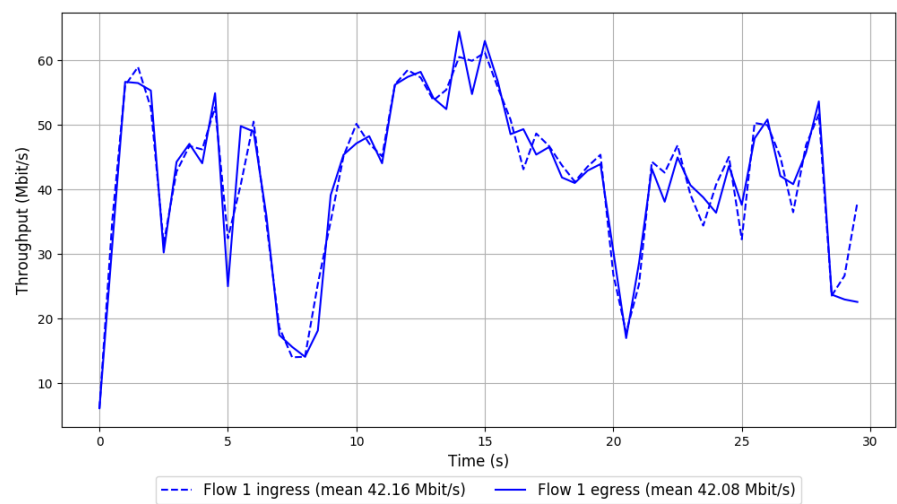Run 7: Report of TaoVA-100x — Data Link

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

Start at: 2018-04-24 07:59:43
End at: 2018-04-24 08:00:13
Local clock offset: -3.513 ms
Remote clock offset: 29.659 ms


# Below is generated by plot.py at 2018-04-24 12:29:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.08 Mbit/s
95th percentile per-packet one-way delay: 54.919 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 42.08 Mbit/s
95th percentile per-packet one-way delay: 54.919 ms
Loss rate: 1.04%
```

Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 42.16 Mbit/s) — Flow 1 egress (mean 42.08 Mbit/s)

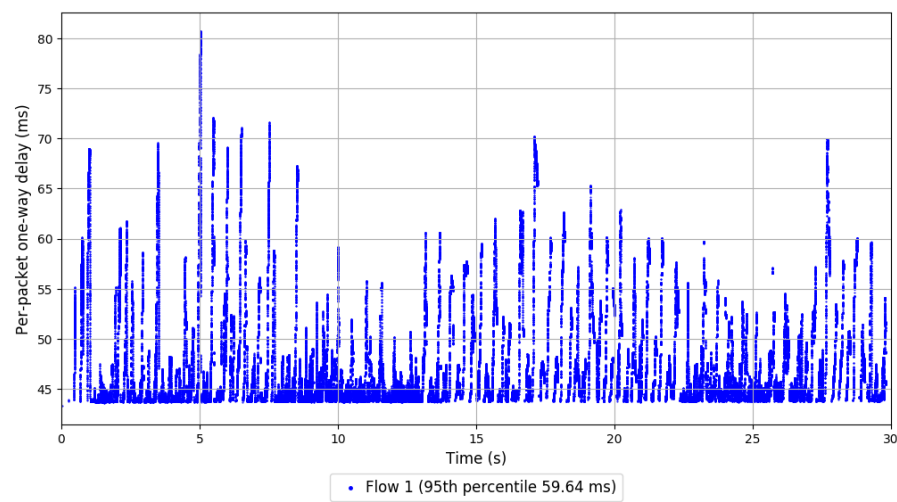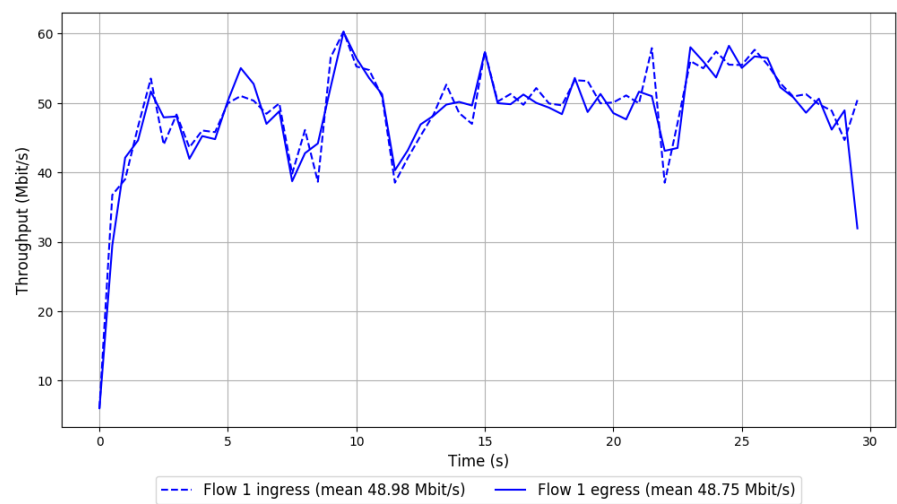Flow 1 (95th percentile 54.92 ms)

179

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

Start at: 2018-04-24 08:21:12
End at: 2018-04-24 08:21:42
Local clock offset: -1.378 ms
Remote clock offset: 29.245 ms


# Below is generated by plot.py at 2018-04-24 12:30:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 59.639 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 59.639 ms
Loss rate: 1.19%
```

Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 48.98 Mbit/s)   Flow 1 egress (mean 48.75 Mbit/s)

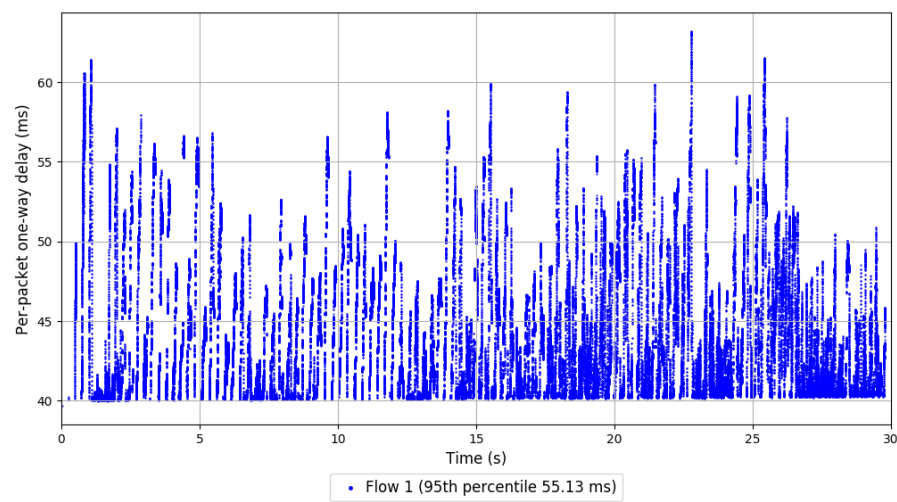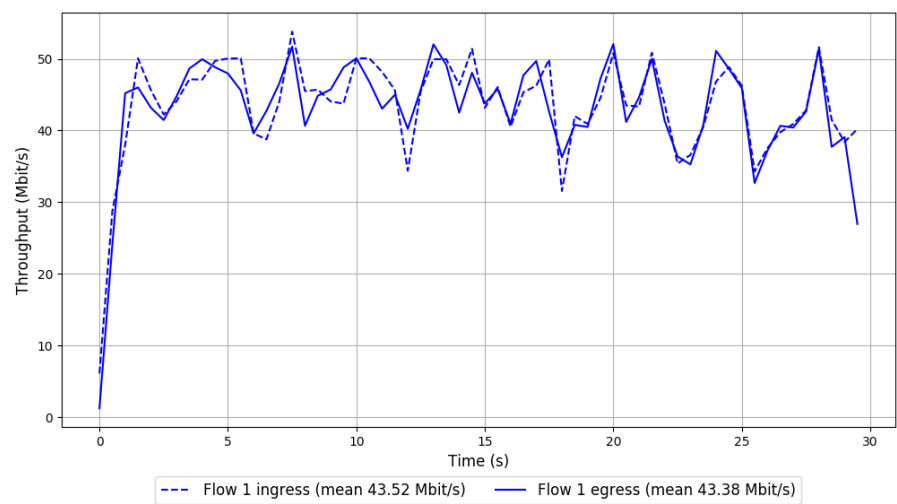

• Flow 1 (95th percentile 59.64 ms)

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

Start at: 2018-04-24 08:43:17
End at: 2018-04-24 08:43:47
Local clock offset: -3.841 ms
Remote clock offset: 23.262 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.38 Mbit/s
95th percentile per-packet one-way delay: 55.131 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 43.38 Mbit/s
95th percentile per-packet one-way delay: 55.131 ms
Loss rate: 1.08%
```

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

Flow 1 ingress (mean 43.52 Mbit/s)   Flow 1 egress (mean 43.38 Mbit/s)
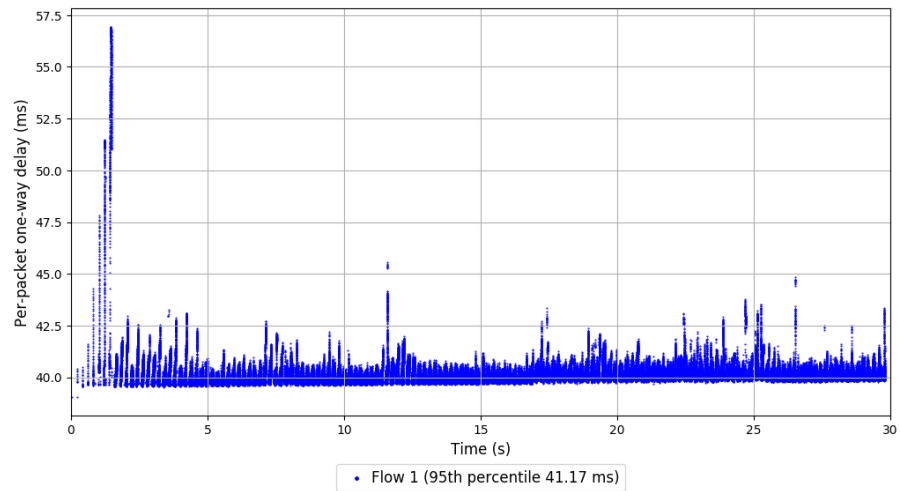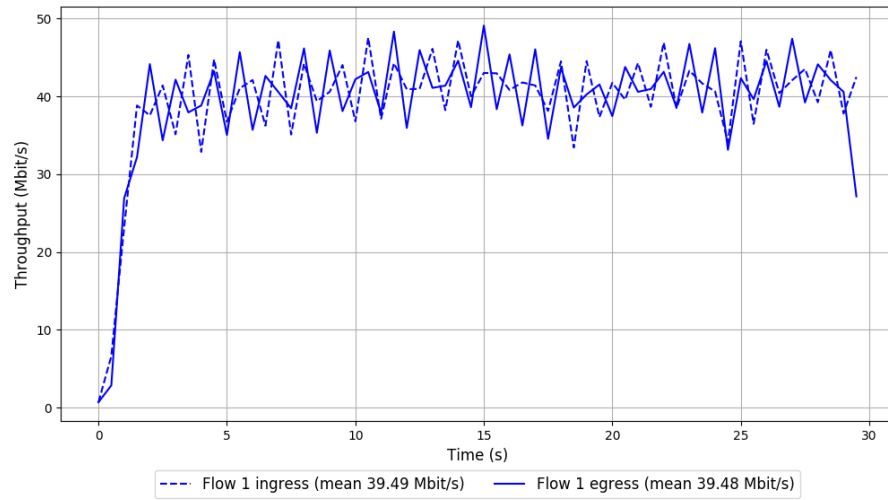

Flow 1 (95th percentile 55.13 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-04-24 05:13:26
End at: 2018-04-24 05:13:56
Local clock offset: -2.056 ms
Remote clock offset: -1.248 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 41.171 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 41.171 ms
Loss rate: 0.70%
```

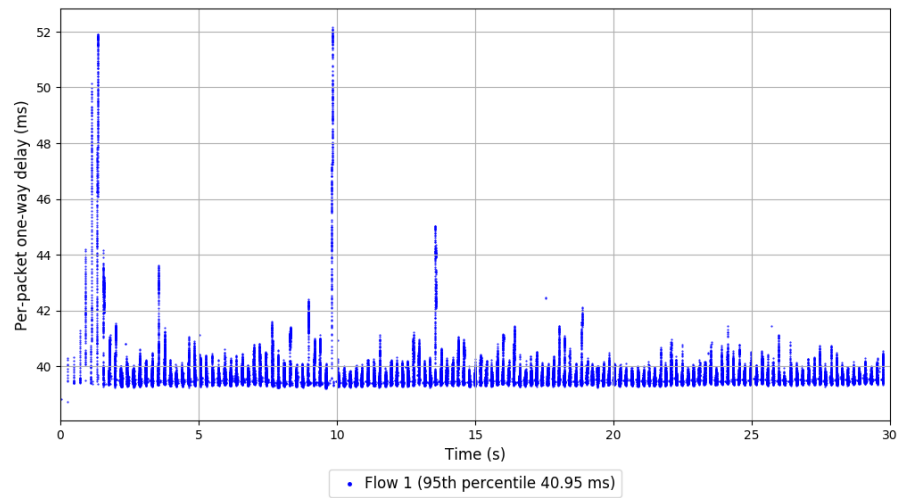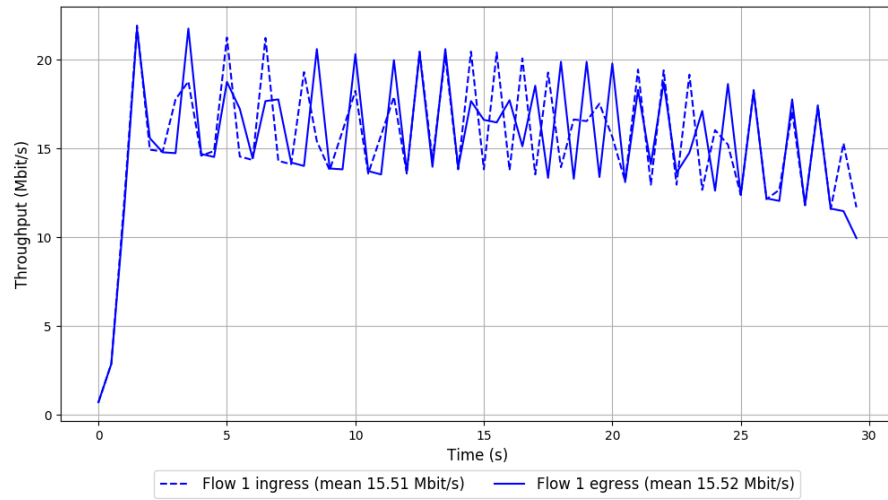Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-04-24 05:34:44
End at: 2018-04-24 05:35:14
Local clock offset: -1.721 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 40.949 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 40.949 ms
Loss rate: 0.60%
```

Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-04-24 05:56:03
End at: 2018-04-24 05:56:33
Local clock offset: 1.621 ms
Remote clock offset: 2.698 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.81 Mbit/s
95th percentile per-packet one-way delay: 40.902 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 30.81 Mbit/s
95th percentile per-packet one-way delay: 40.902 ms
Loss rate: 0.68%
```
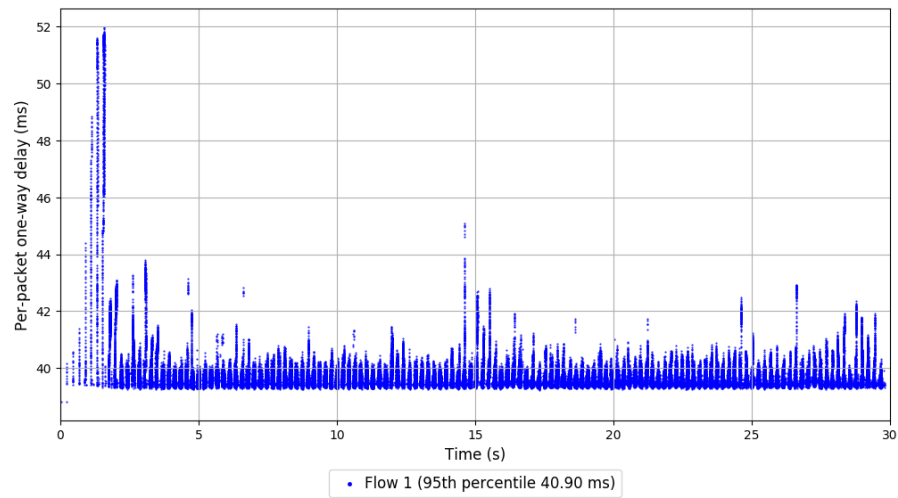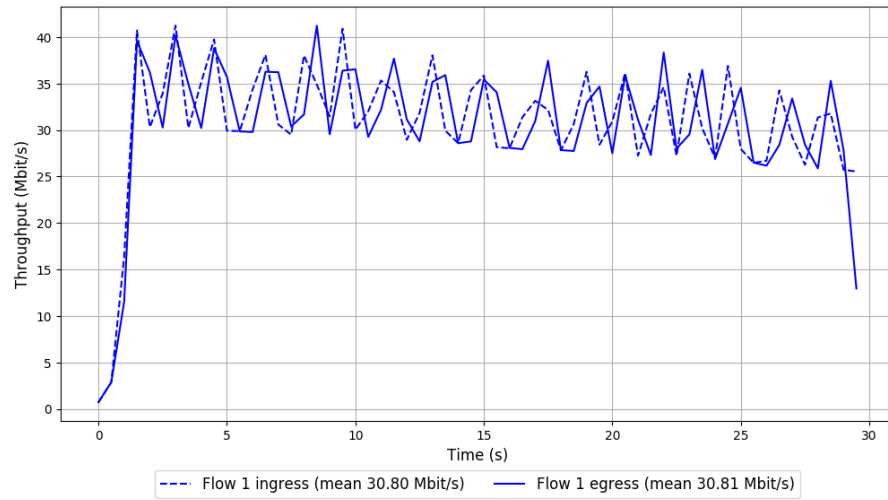
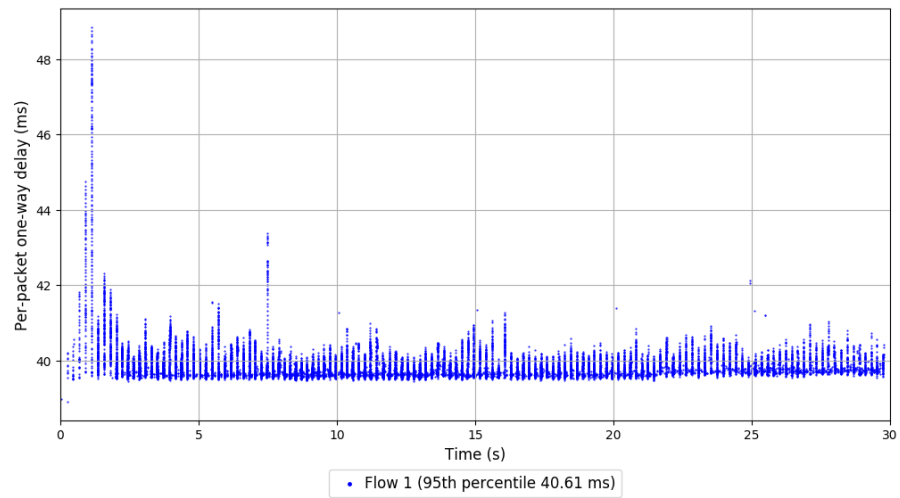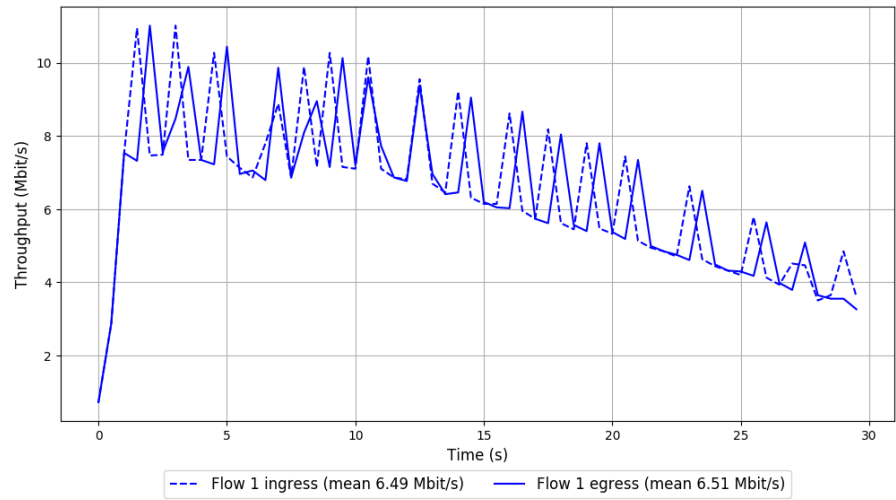Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-04-24 06:17:22
End at: 2018-04-24 06:17:52
Local clock offset: 2.509 ms
Remote clock offset: -12.201 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 40.607 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 40.607 ms
Loss rate: 0.44%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-04-24 06:38:37
End at: 2018-04-24 06:39:07
Local clock offset: 3.625 ms
Remote clock offset: 8.36 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 40.217 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 40.217 ms
Loss rate: 0.46%
```
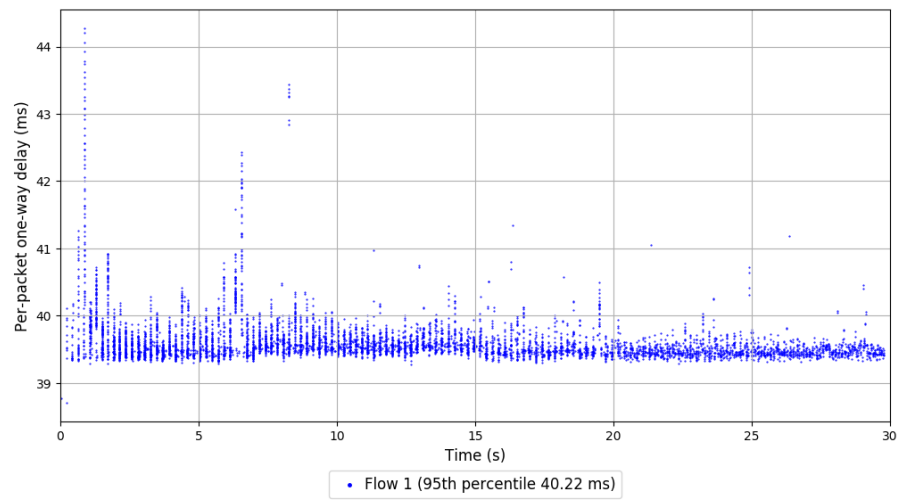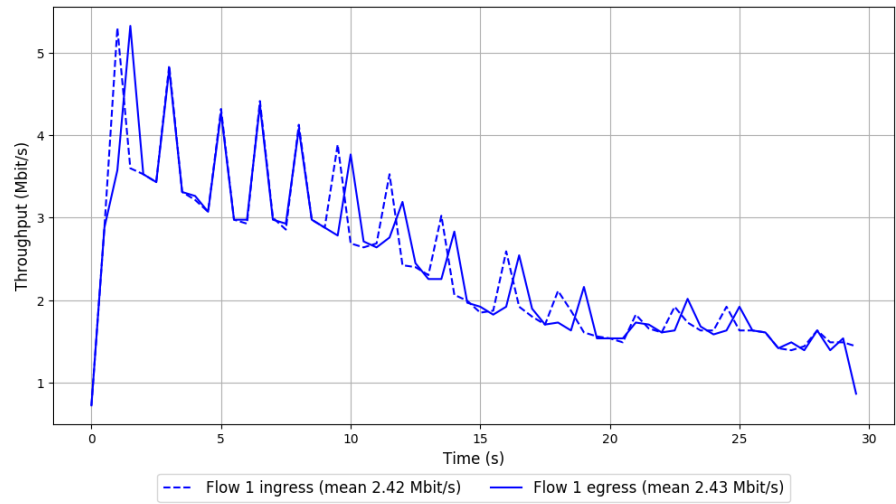
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-04-24 06:59:53
End at: 2018-04-24 07:00:23
Local clock offset: 3.303 ms
Remote clock offset: 43.172 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 41.656 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 41.656 ms
Loss rate: 0.71%
```

Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 38.71 Mbit/s)   Flow 1 egress (mean 38.69 Mbit/s)
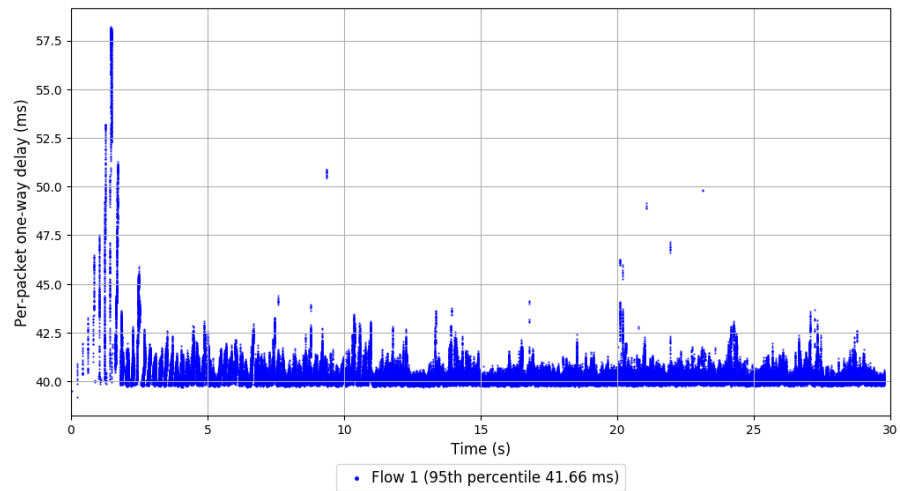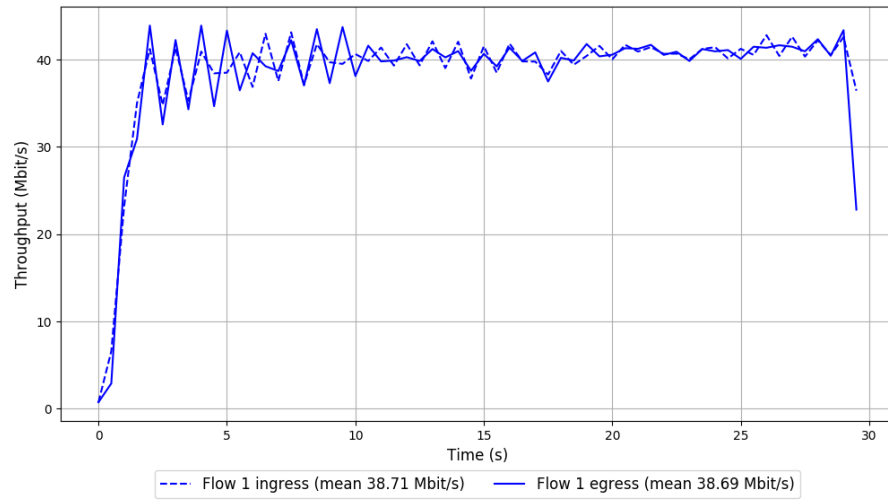

Flow 1 (95th percentile 41.66 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2018-04-24 07:26:13
End at: 2018-04-24 07:26:43
Local clock offset: -0.49 ms
Remote clock offset: 36.322 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 33.425 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 33.425 ms
Loss rate: 0.73%
```
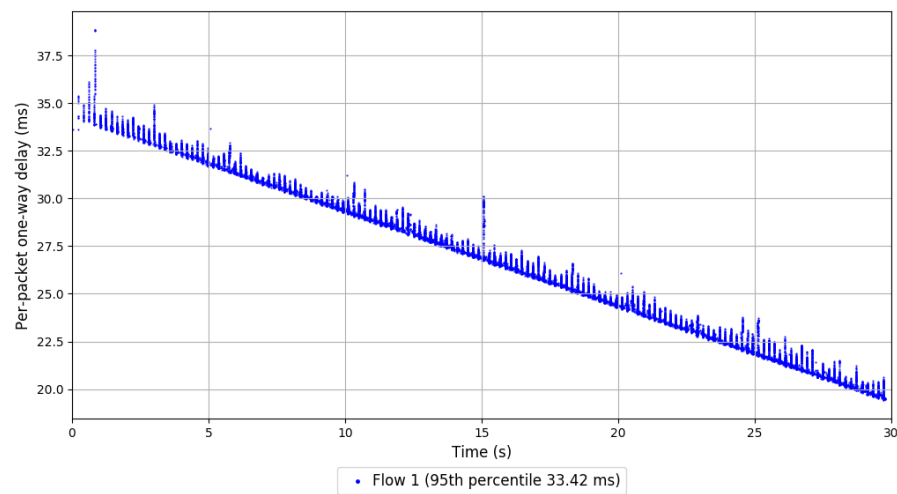
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-04-24 07:48:33
End at: 2018-04-24 07:49:03
Local clock offset: -5.676 ms
Remote clock offset: 10.969 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.11 Mbit/s
95th percentile per-packet one-way delay: 43.181 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 14.11 Mbit/s
95th percentile per-packet one-way delay: 43.181 ms
Loss rate: 0.61%
```
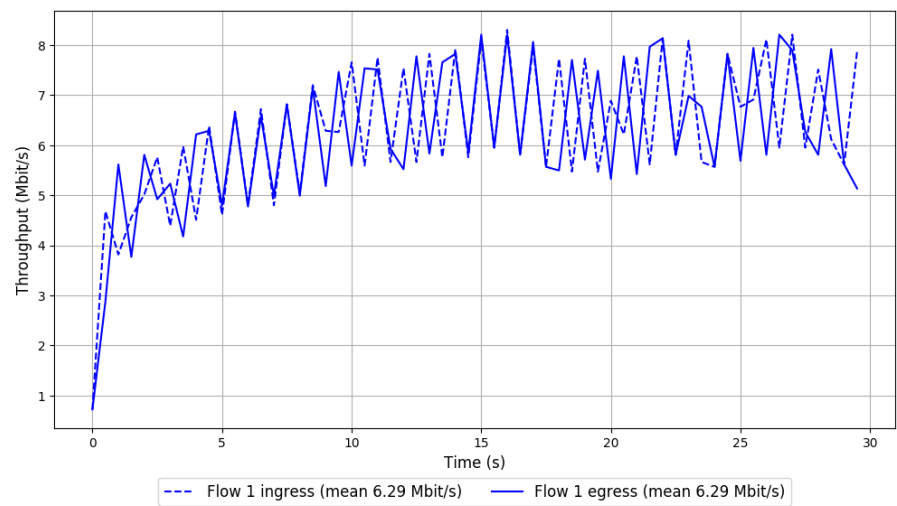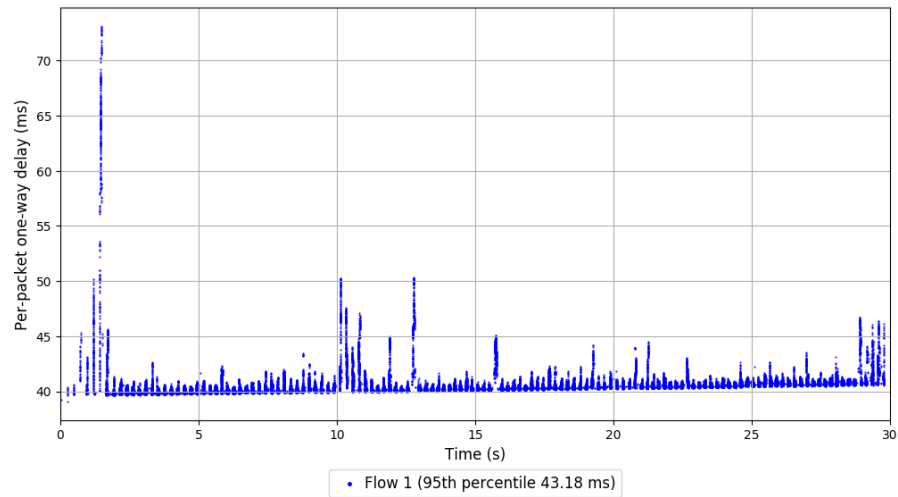
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 14.10 Mbit/s) --- Flow 1 egress (mean 14.11 Mbit/s)

Flow 1 (95th percentile 43.18 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-04-24 08:09:47
End at: 2018-04-24 08:10:17
Local clock offset: -1.955 ms
Remote clock offset: 33.733 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 55.872 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 55.872 ms
Loss rate: 0.52%
```
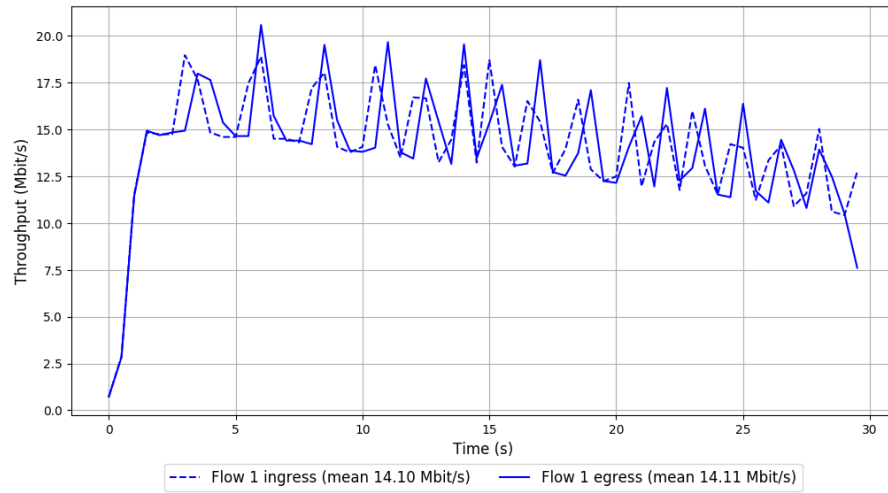
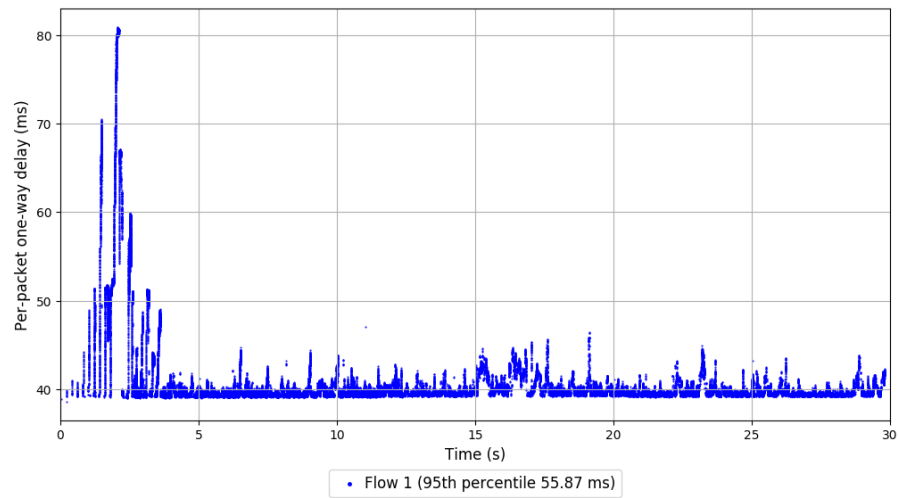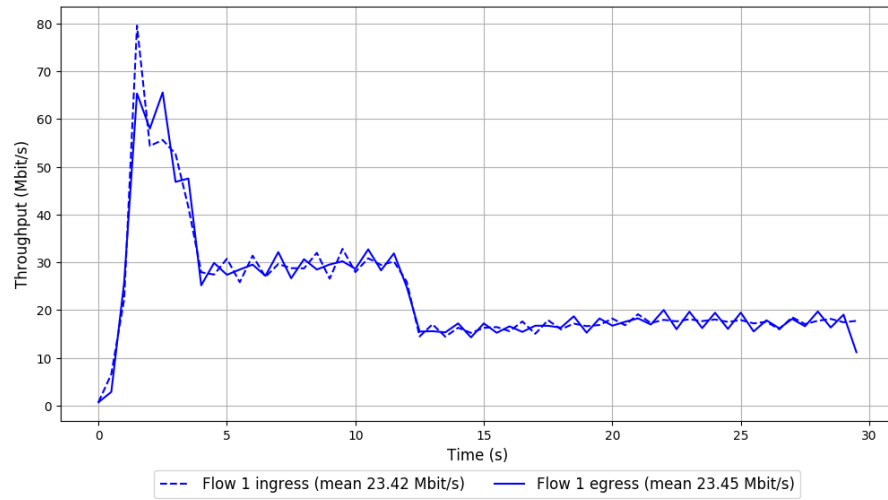## Run 9: Report of TCP Vegas — Data Link

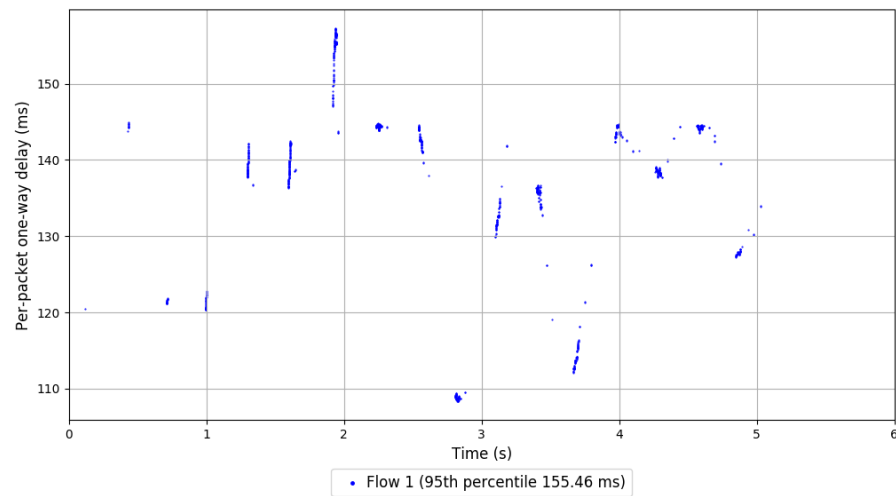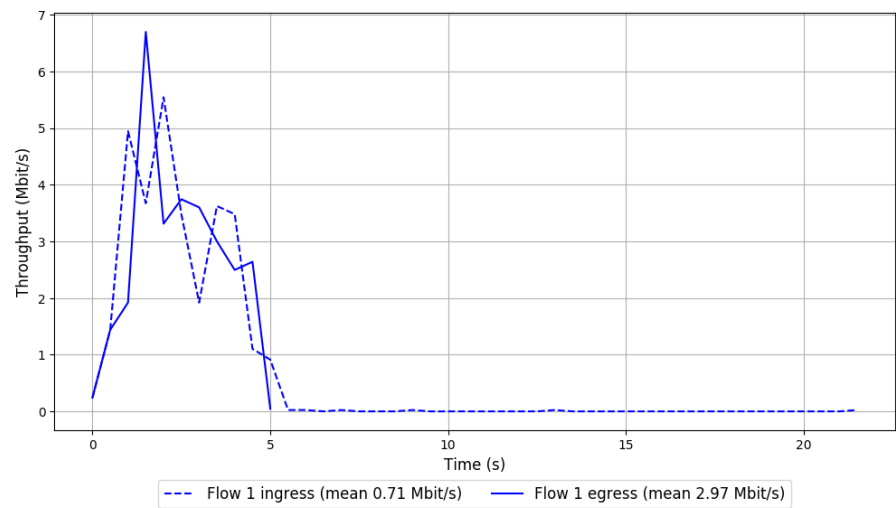Run 10: Statistics of TCP Vegas

Start at: 2018-04-24 08:31:25
End at: 2018-04-24 08:31:55
Local clock offset: -1.942 ms
Remote clock offset: 41.019 ms

Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 0.71 Mbit/s) --- Flow 1 egress (mean 2.97 Mbit/s)

Flow 1 (95th percentile 155.46 ms)

```
Run 1: Statistics of Verus

Start at: 2018-04-24 05:12:11
End at: 2018-04-24 05:12:41
Local clock offset: -0.892 ms
Remote clock offset: -1.319 ms


# Below is generated by plot.py at 2018-04-24 12:30:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 57.338 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 57.338 ms
Loss rate: 0.41%
```
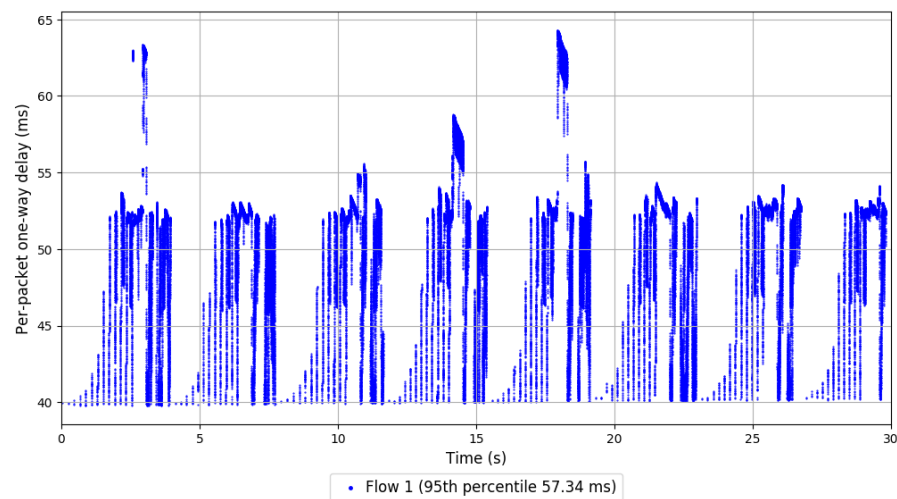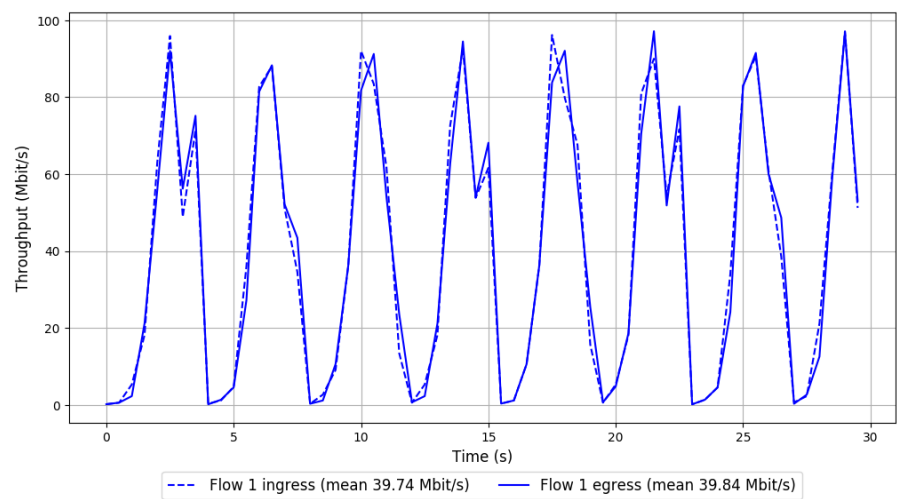
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-04-24 05:33:28
End at: 2018-04-24 05:33:58
Local clock offset: -1.592 ms
Remote clock offset: -0.375 ms


# Below is generated by plot.py at 2018-04-24 12:30:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.70 Mbit/s
95th percentile per-packet one-way delay: 58.007 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 45.70 Mbit/s
95th percentile per-packet one-way delay: 58.007 ms
Loss rate: 0.58%
```

Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 45.86 Mbit/s) --- Flow 1 egress (mean 45.70 Mbit/s)

• Flow 1 (95th percentile 58.01 ms)

```
Run 3: Statistics of Verus

Start at: 2018-04-24 05:54:47
End at: 2018-04-24 05:55:17
Local clock offset: 1.616 ms
Remote clock offset: 2.512 ms


# Below is generated by plot.py at 2018-04-24 12:30:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.89 Mbit/s
95th percentile per-packet one-way delay: 57.939 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 36.89 Mbit/s
95th percentile per-packet one-way delay: 57.939 ms
Loss rate: 0.18%
```
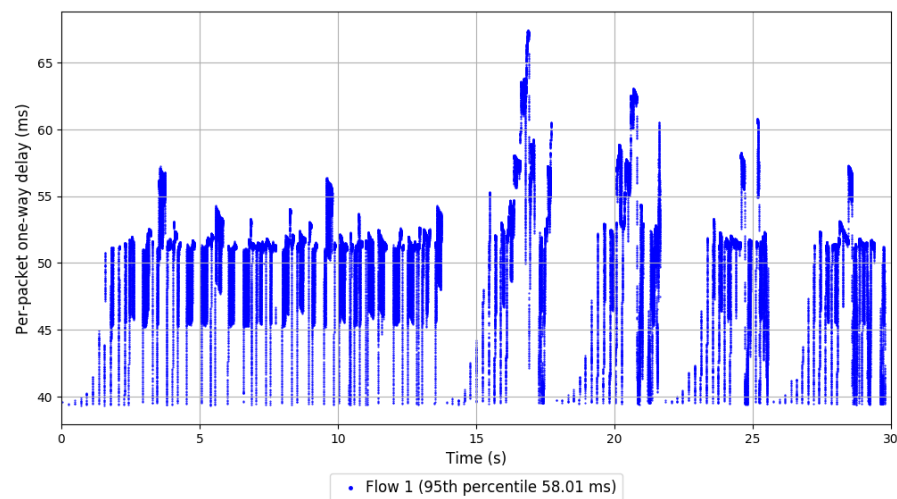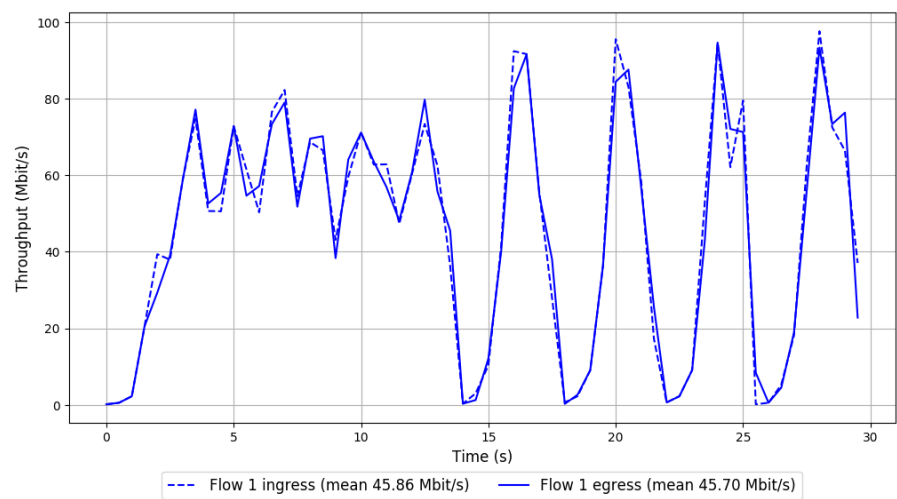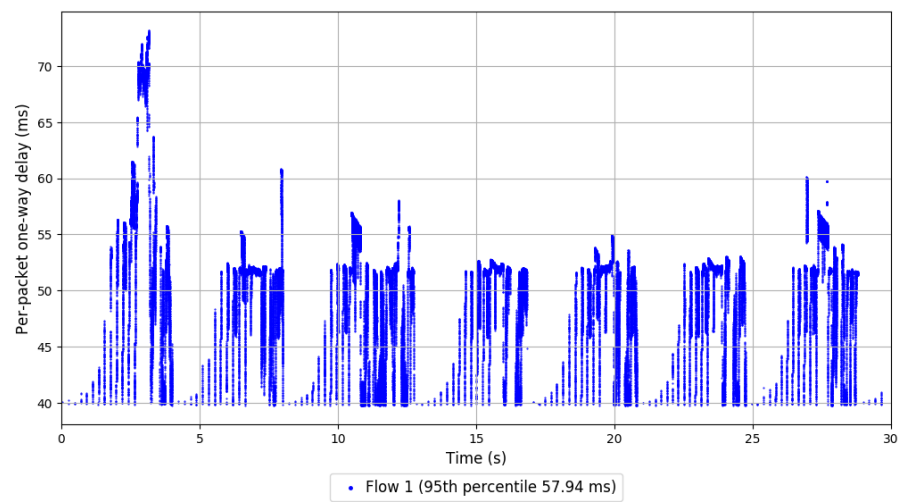
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-04-24 06:16:06
End at: 2018-04-24 06:16:36
Local clock offset: 2.596 ms
Remote clock offset: -12.225 ms


# Below is generated by plot.py at 2018-04-24 12:30:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.94 Mbit/s
95th percentile per-packet one-way delay: 53.566 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 45.94 Mbit/s
95th percentile per-packet one-way delay: 53.566 ms
Loss rate: 1.66%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-04-24 06:37:22
End at: 2018-04-24 06:37:52
Local clock offset: 3.574 ms
Remote clock offset: 8.379 ms


# Below is generated by plot.py at 2018-04-24 12:30:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 60.764 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 60.764 ms
Loss rate: 0.21%
```
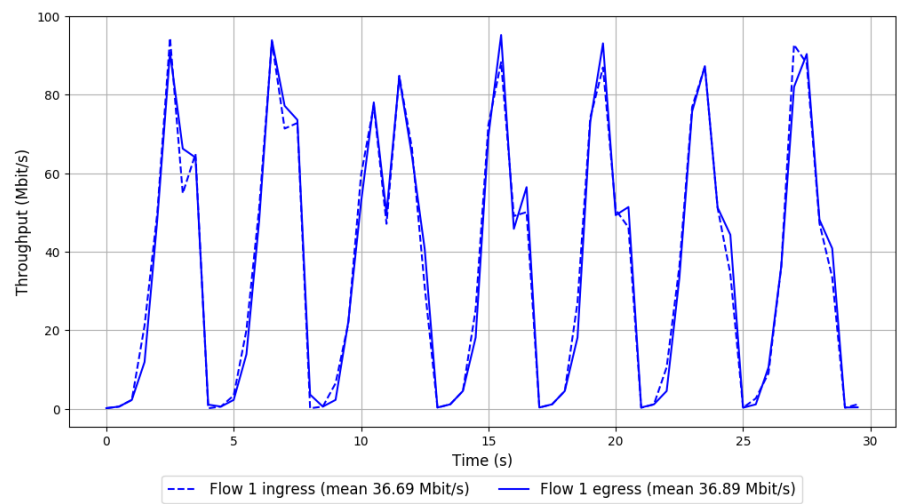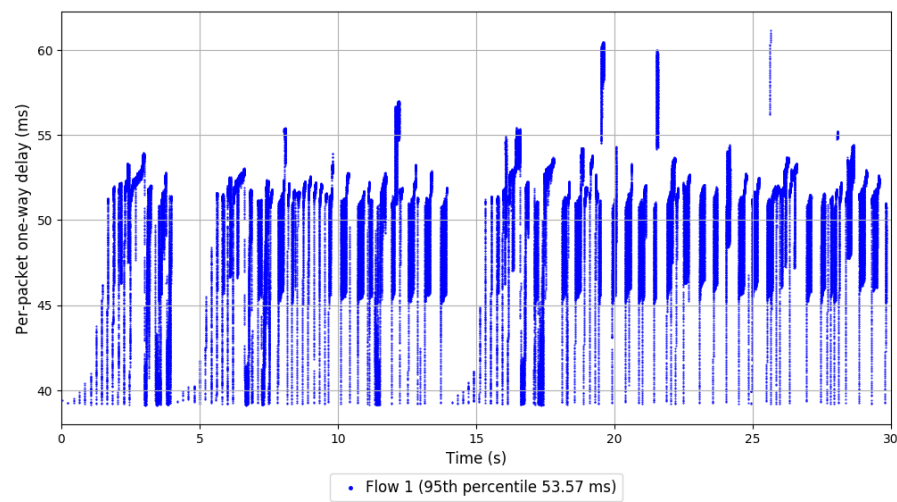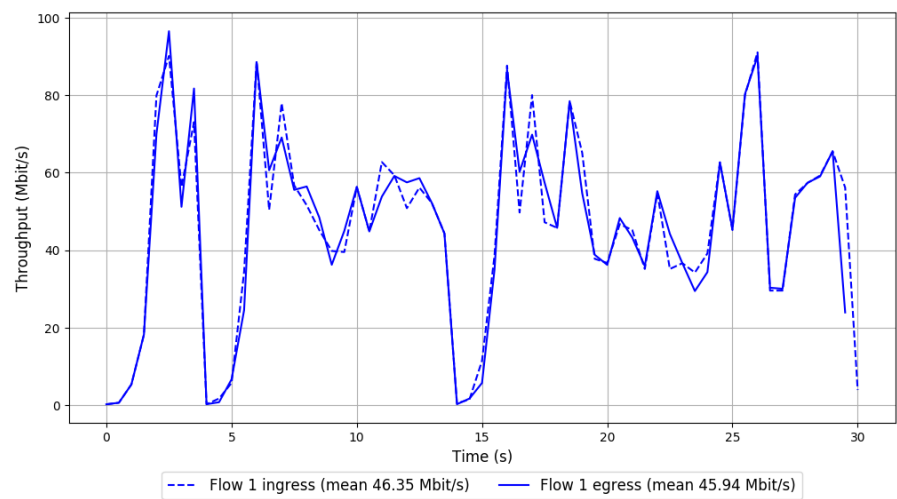
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 34.94 Mbit/s)   Flow 1 egress (mean 35.11 Mbit/s)

Flow 1 (95th percentile 60.76 ms)

```
Run 6: Statistics of Verus

Start at: 2018-04-24 06:58:37
End at: 2018-04-24 06:59:07
Local clock offset: 3.358 ms
Remote clock offset: 43.33 ms


# Below is generated by plot.py at 2018-04-24 12:30:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 67.713 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 67.713 ms
Loss rate: 1.99%
```

Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 40.73 Mbit/s)   Flow 1 egress (mean 40.19 Mbit/s)

Flow 1 (95th percentile 67.71 ms)

```
Run 7: Statistics of Verus

Start at: 2018-04-24 07:24:57
End at: 2018-04-24 07:25:27
Local clock offset: 0.273 ms
Remote clock offset: 36.652 ms

# Below is generated by plot.py at 2018-04-24 12:30:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 68.689 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 68.689 ms
Loss rate: 0.98%
```
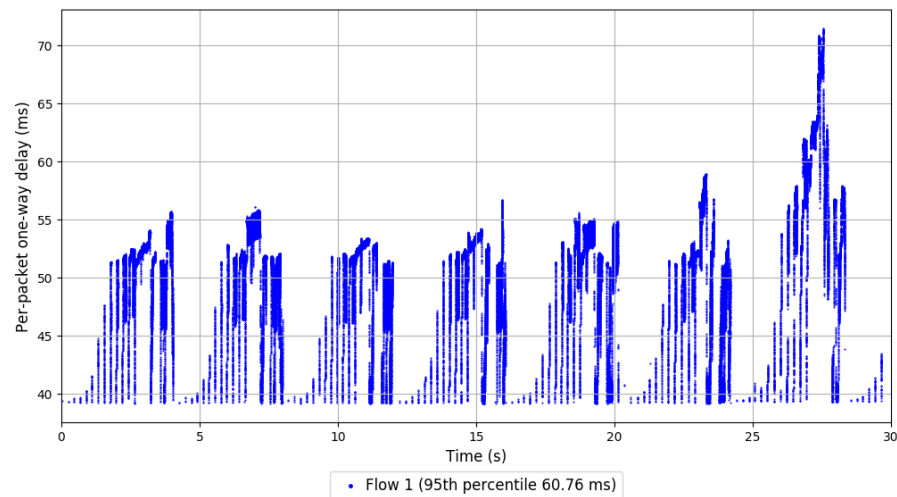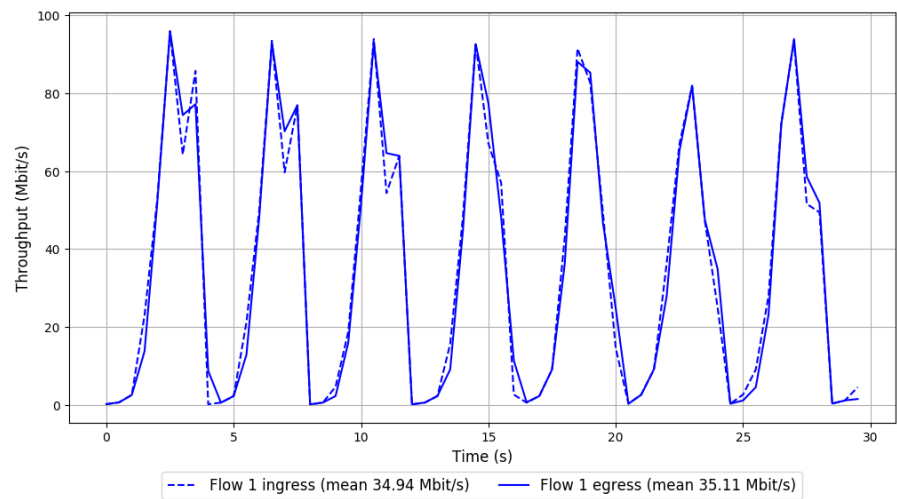
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-04-24 07:47:16
End at: 2018-04-24 07:47:46
Local clock offset: -5.387 ms
Remote clock offset: 9.554 ms


# Below is generated by plot.py at 2018-04-24 12:30:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 81.009 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 81.009 ms
Loss rate: 2.00%
```
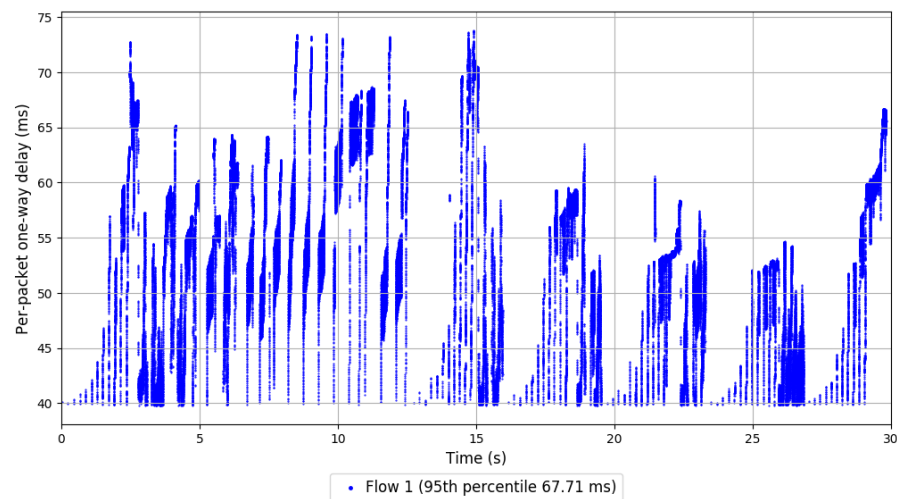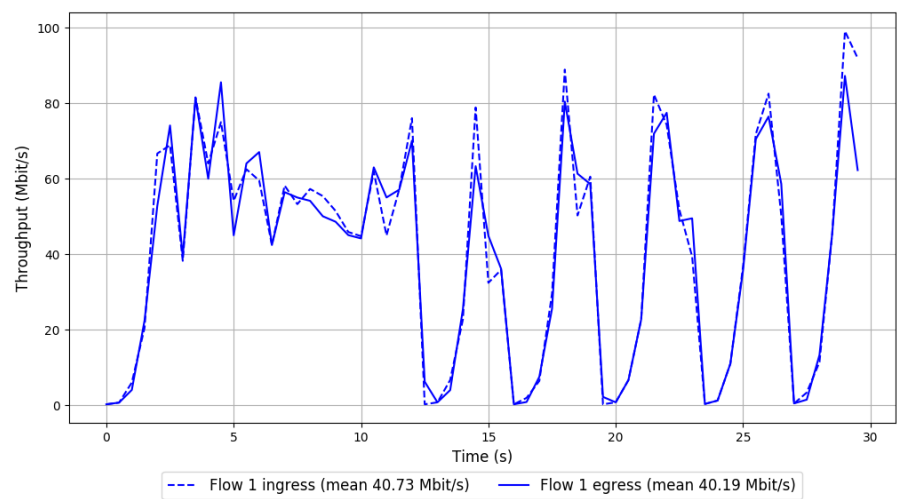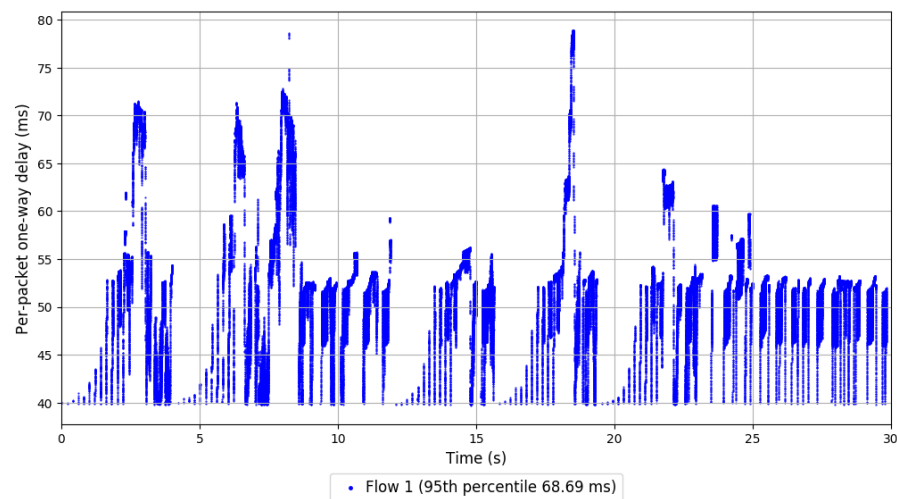
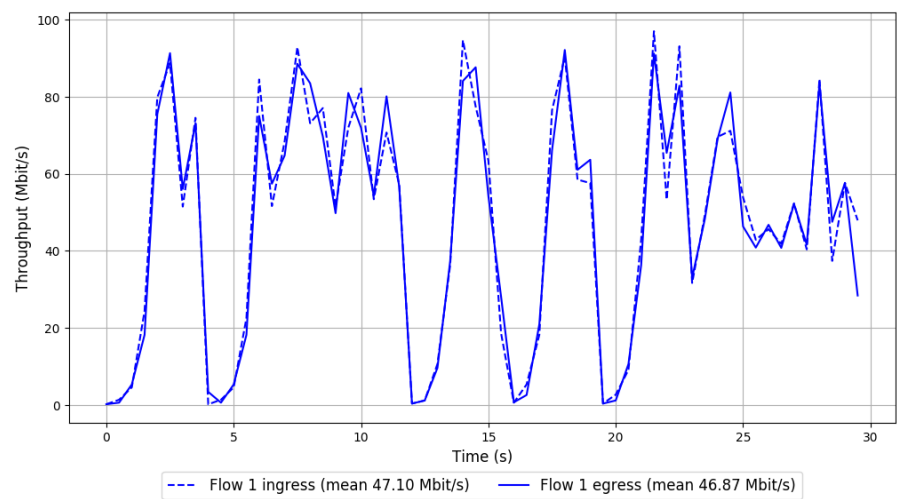Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-04-24 08:08:32
End at: 2018-04-24 08:09:02
Local clock offset: -1.875 ms
Remote clock offset: 33.409 ms


# Below is generated by plot.py at 2018-04-24 12:30:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 90.486 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 90.486 ms
Loss rate: 0.87%
```

Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-04-24 08:30:04
End at: 2018-04-24 08:30:34
Local clock offset: -1.577 ms
Remote clock offset: 40.296 ms


# Below is generated by plot.py at 2018-04-24 12:30:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 145.817 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 145.817 ms
Loss rate: 1.62%
```
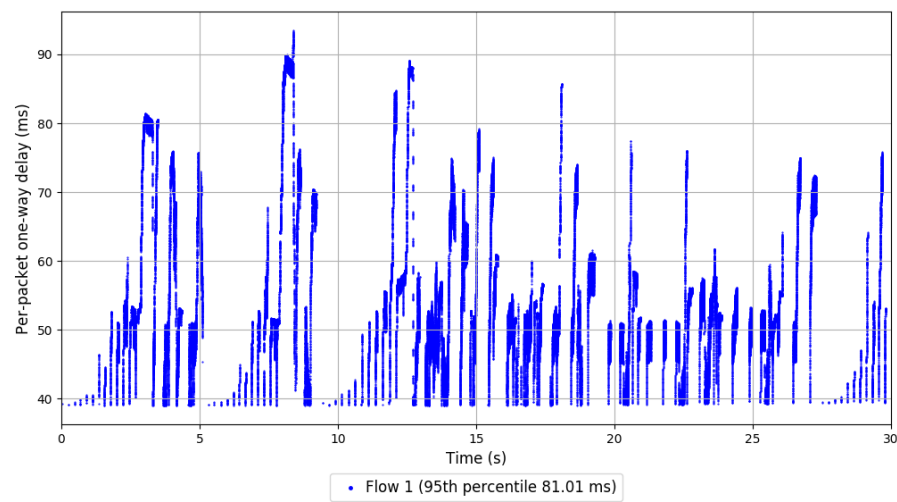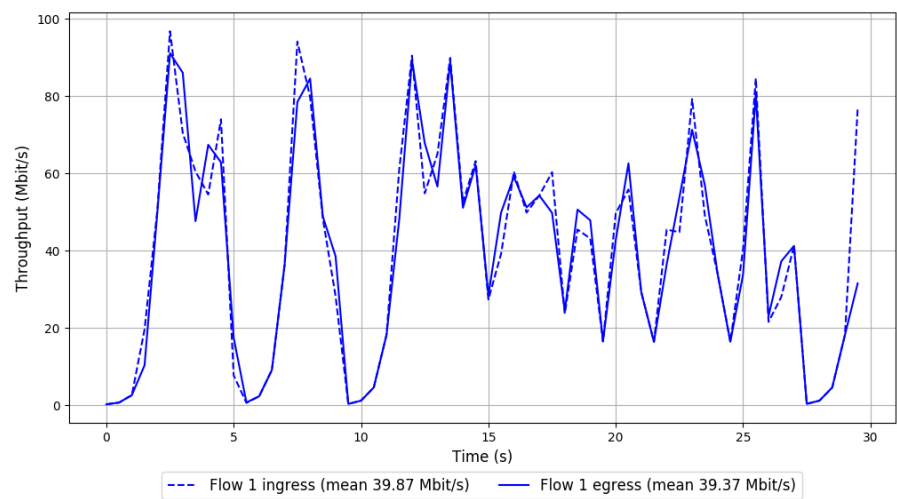
Run 10: Report of Verus — Data Link

Flow 1 ingress (mean 28.19 Mbit/s) —— Flow 1 egress (mean 27.96 Mbit/s)
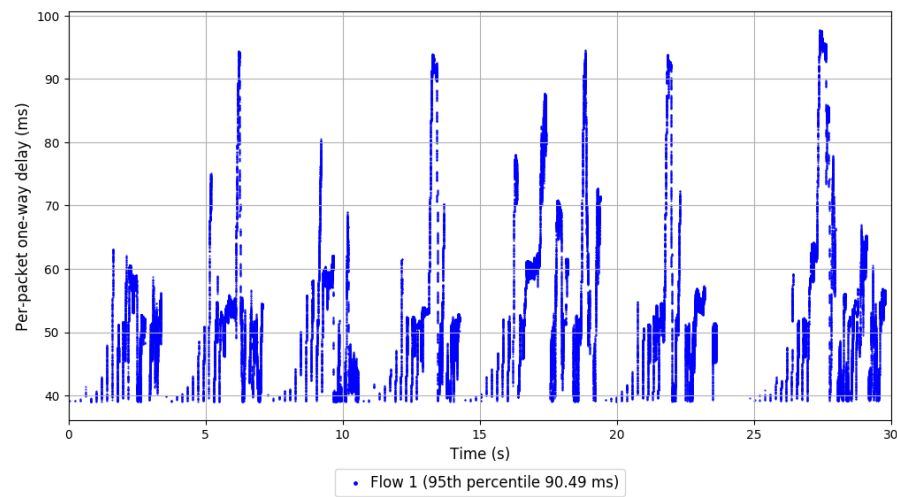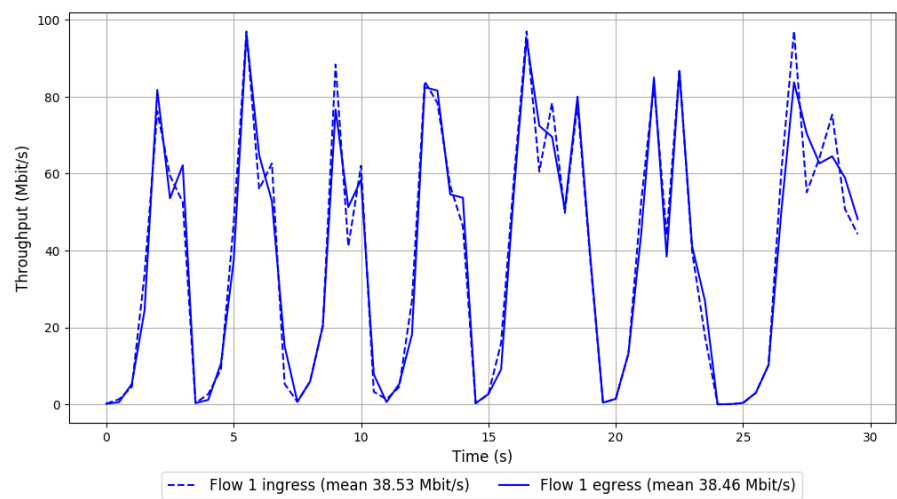

• Flow 1 (95th percentile 145.82 ms)

```
Run 1: Statistics of Copa

Start at: 2018-04-24 05:08:23
End at: 2018-04-24 05:08:53
Local clock offset: -1.86 ms
Remote clock offset: -1.28 ms


# Below is generated by plot.py at 2018-04-24 12:30:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 38.819 ms
Loss rate: 3.16%
-- Flow 1:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 38.819 ms
Loss rate: 3.16%
```
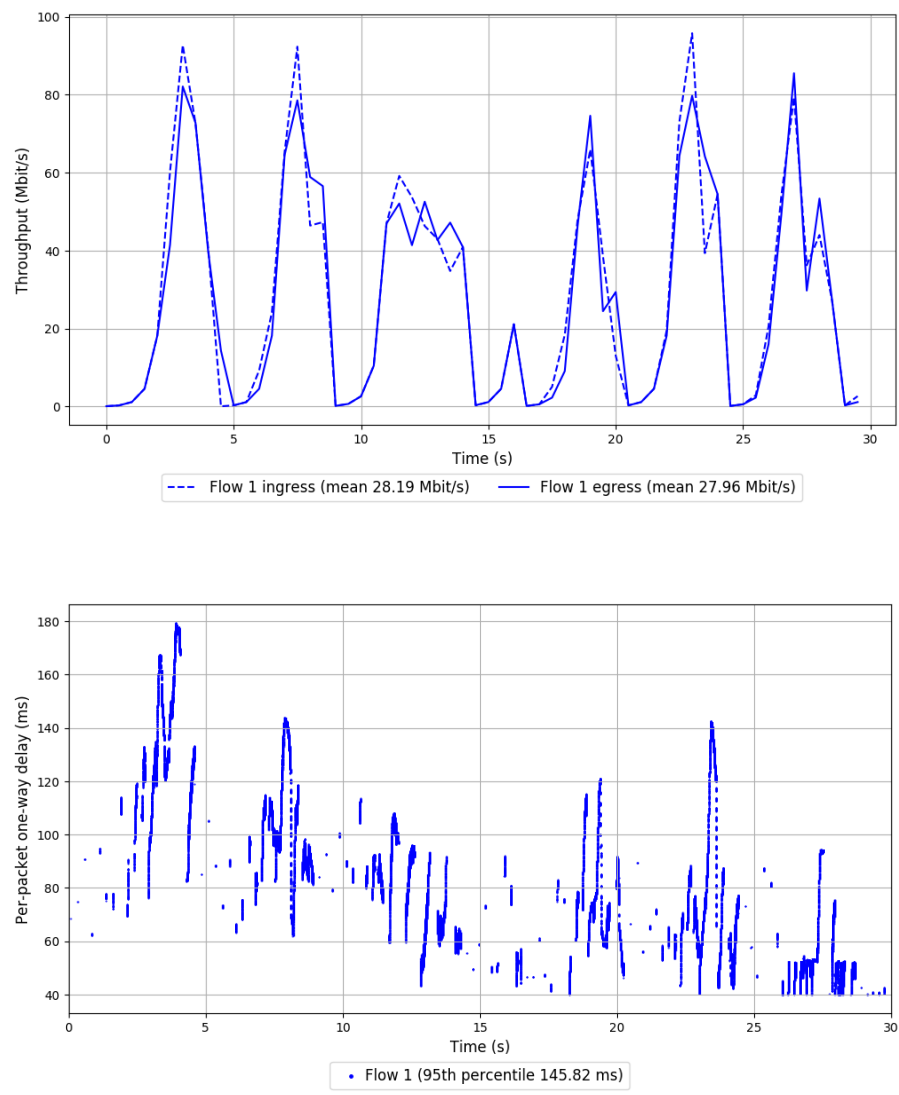
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-04-24 05:29:41
End at: 2018-04-24 05:30:11
Local clock offset: -1.749 ms
Remote clock offset: -1.129 ms


# Below is generated by plot.py at 2018-04-24 12:30:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 43.559 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 43.559 ms
Loss rate: 0.19%
```

Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 21.75 Mbit/s)   Flow 1 egress (mean 21.87 Mbit/s)

• Flow 1 (95th percentile 43.56 ms)

```
Run 3: Statistics of Copa

Start at: 2018-04-24 05:50:58
End at: 2018-04-24 05:51:28
Local clock offset: 1.047 ms
Remote clock offset: 2.307 ms


# Below is generated by plot.py at 2018-04-24 12:30:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.80 Mbit/s
95th percentile per-packet one-way delay: 39.003 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 17.80 Mbit/s
95th percentile per-packet one-way delay: 39.003 ms
Loss rate: 2.02%
```
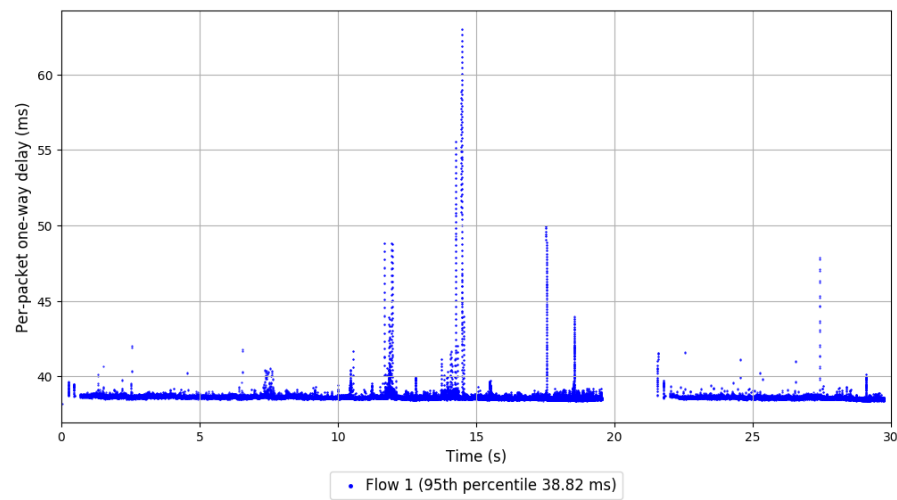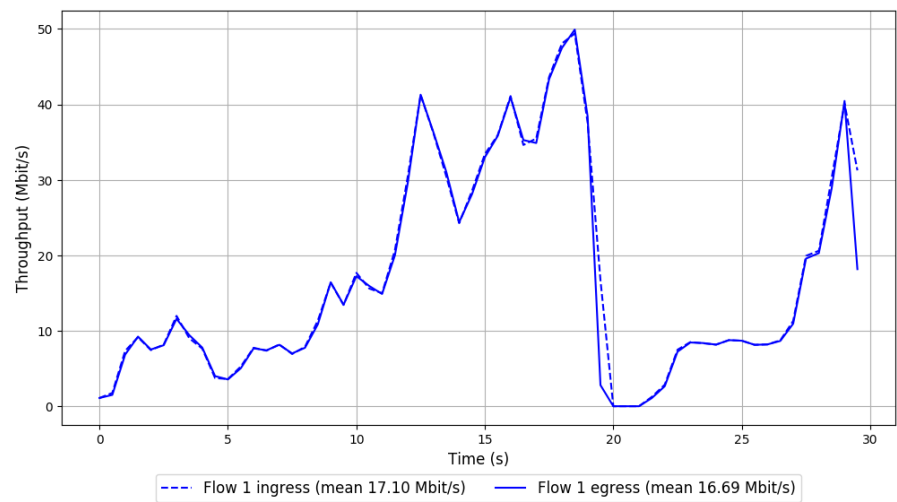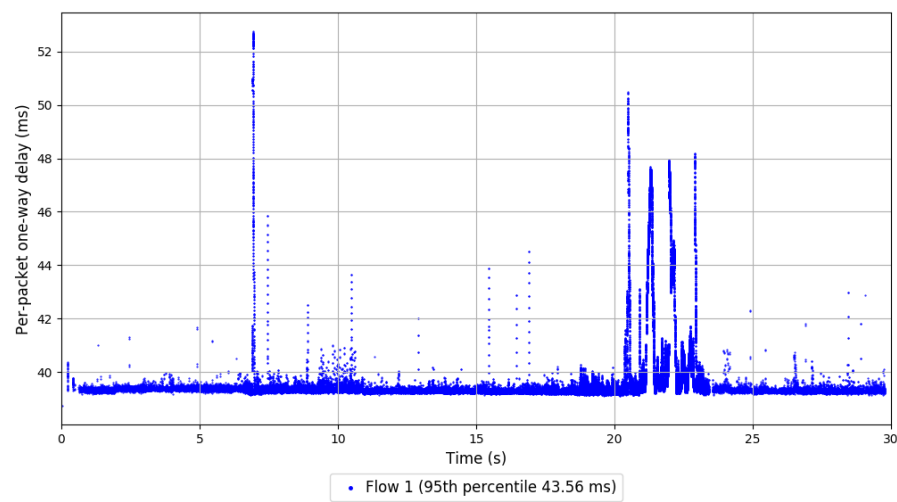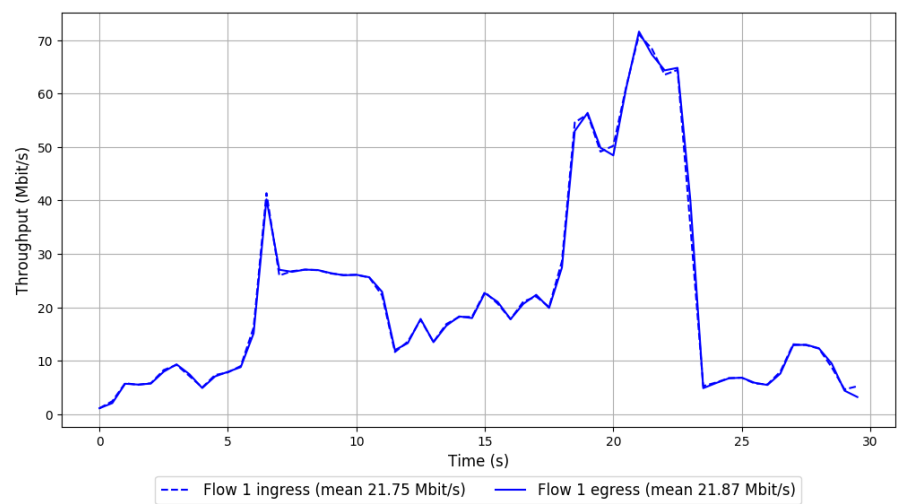
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 18.02 Mbit/s) Flow 1 egress (mean 17.80 Mbit/s)

Flow 1 (95th percentile 39.00 ms)

```
Run 4: Statistics of Copa

Start at: 2018-04-24 06:12:18
End at: 2018-04-24 06:12:48
Local clock offset: 2.344 ms
Remote clock offset: 30.872 ms

# Below is generated by plot.py at 2018-04-24 12:31:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 35.417 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 35.417 ms
Loss rate: 0.92%
```

Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 28.89 Mbit/s) ----- Flow 1 egress (mean 28.82 Mbit/s)

Flow 1 (95th percentile 35.42 ms)

```
Run 5: Statistics of Copa

Start at: 2018-04-24 06:33:33
End at: 2018-04-24 06:34:03
Local clock offset: 3.303 ms
Remote clock offset: 5.239 ms


# Below is generated by plot.py at 2018-04-24 12:31:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.32 Mbit/s
95th percentile per-packet one-way delay: 42.626 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 15.32 Mbit/s
95th percentile per-packet one-way delay: 42.626 ms
Loss rate: 2.60%
```
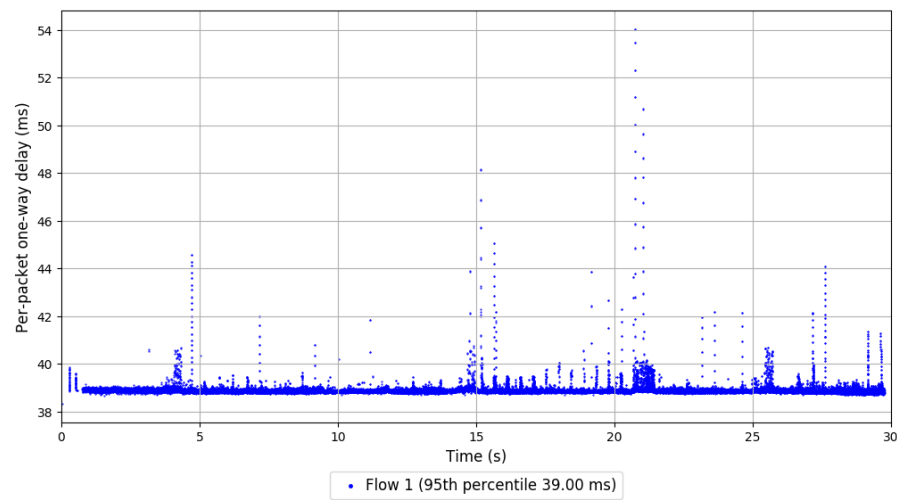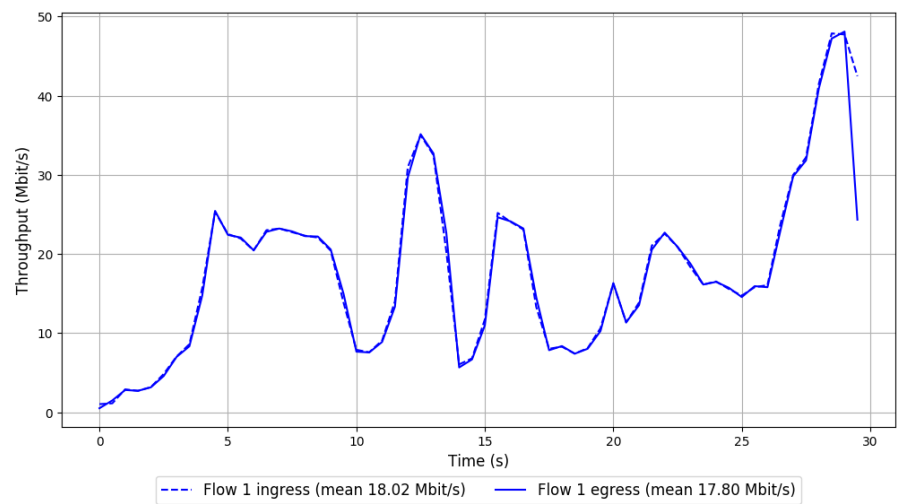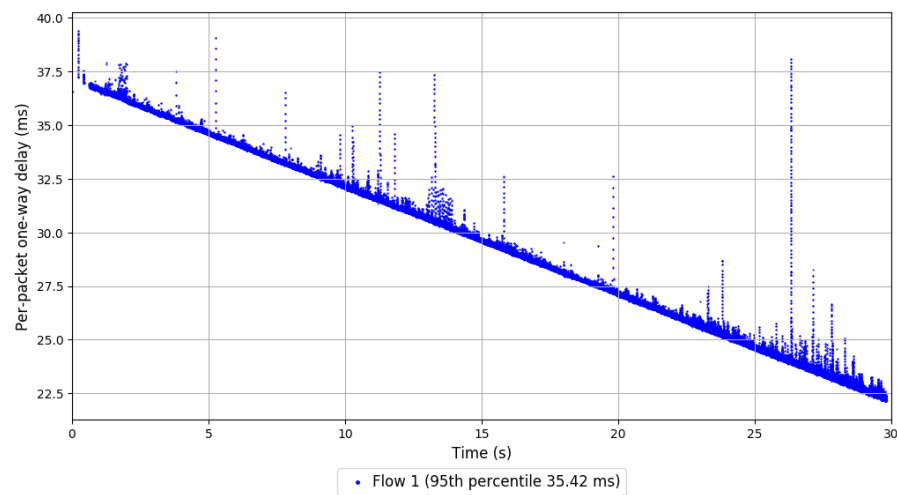
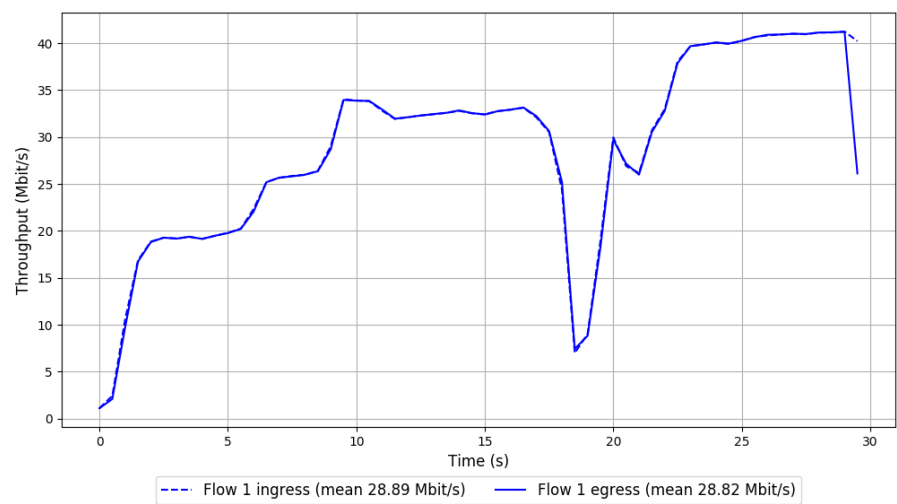Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-04-24 06:54:49
End at: 2018-04-24 06:55:19
Local clock offset: 3.232 ms
Remote clock offset: 43.126 ms


# Below is generated by plot.py at 2018-04-24 12:31:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 39.526 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 39.526 ms
Loss rate: 0.76%
```

Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 34.94 Mbit/s)   Flow 1 egress (mean 34.90 Mbit/s)

• Flow 1 (95th percentile 39.53 ms)

```
Run 7: Statistics of Copa

Start at: 2018-04-24 07:16:27
End at: 2018-04-24 07:16:57
Local clock offset: 3.227 ms
Remote clock offset: 41.433 ms


# Below is generated by plot.py at 2018-04-24 12:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.83 Mbit/s
95th percentile per-packet one-way delay: 185.346 ms
Loss rate: 22.54%
-- Flow 1:
Average throughput: 43.83 Mbit/s
95th percentile per-packet one-way delay: 185.346 ms
Loss rate: 22.54%
```
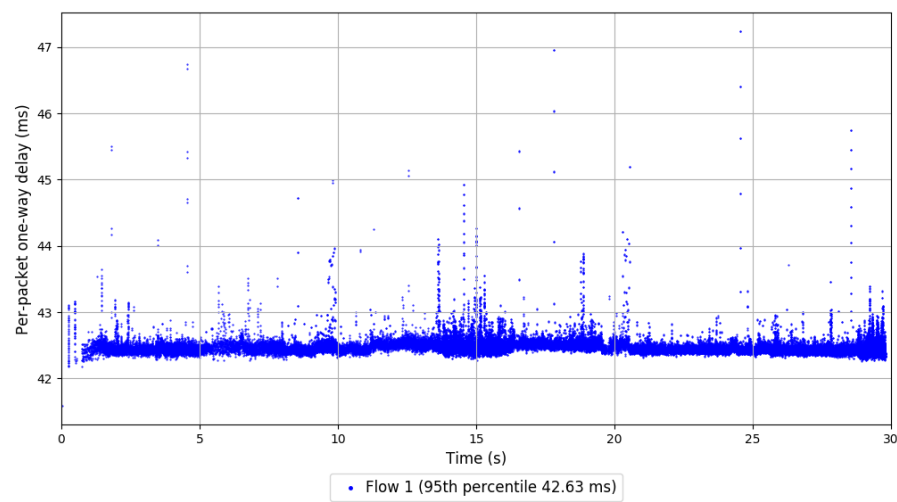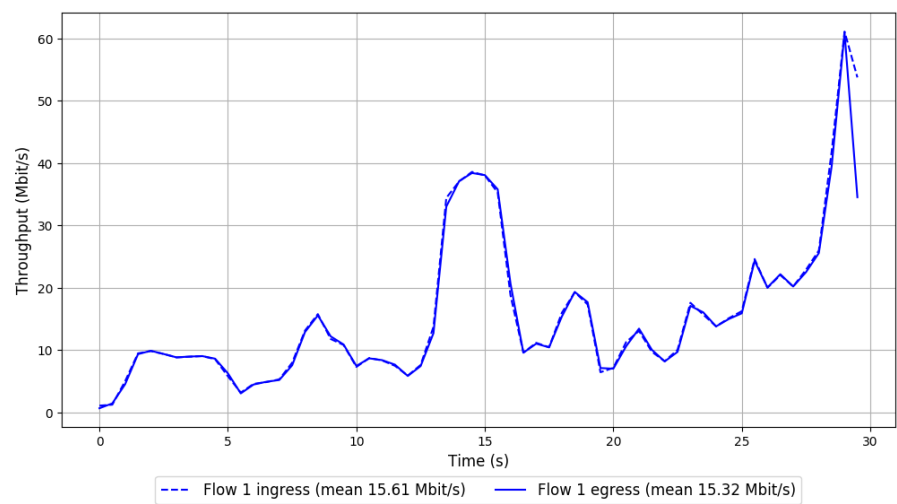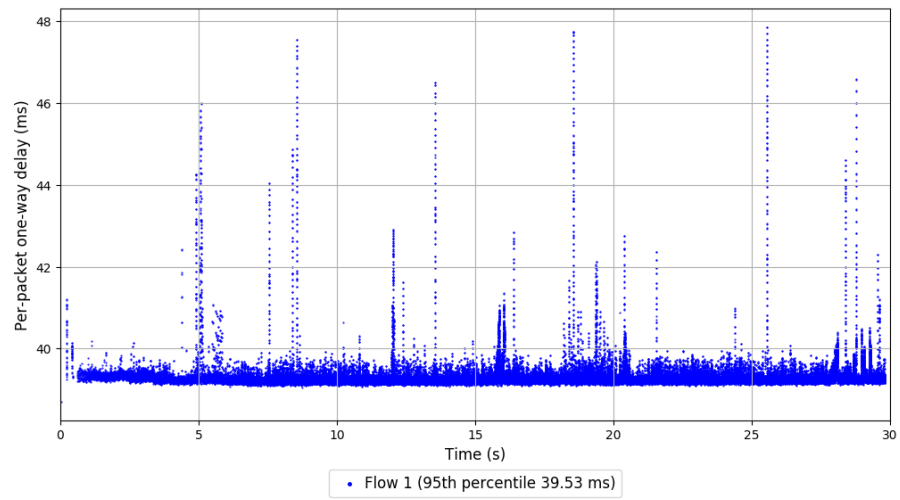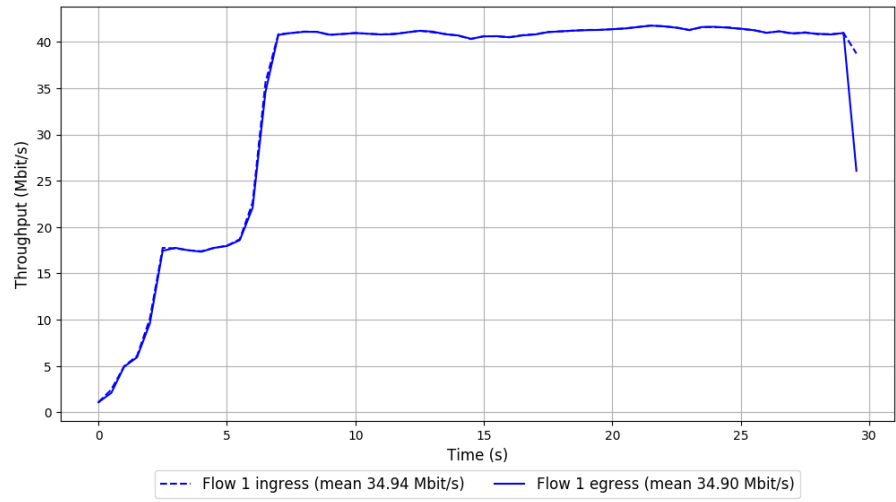
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-04-24 07:43:28
End at: 2018-04-24 07:43:59
Local clock offset: -4.799 ms
Remote clock offset: 9.837 ms


# Below is generated by plot.py at 2018-04-24 12:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.87 Mbit/s
95th percentile per-packet one-way delay: 40.484 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 14.87 Mbit/s
95th percentile per-packet one-way delay: 40.484 ms
Loss rate: 0.85%
```
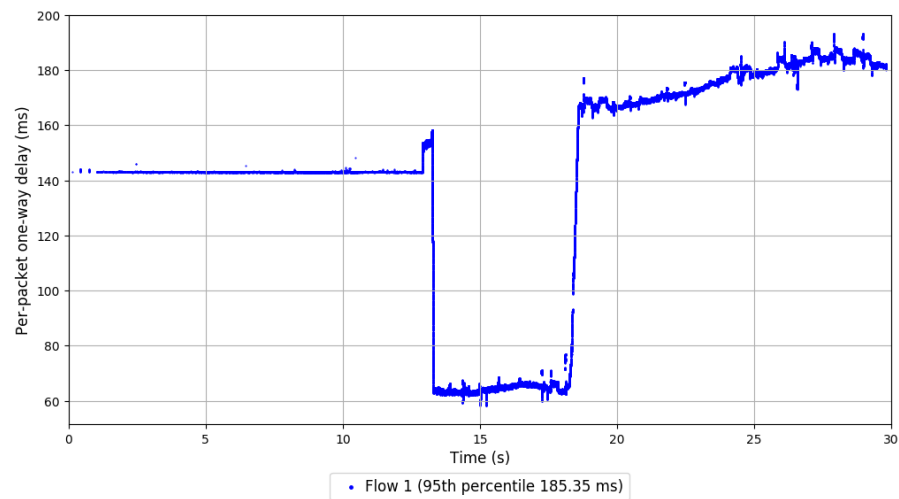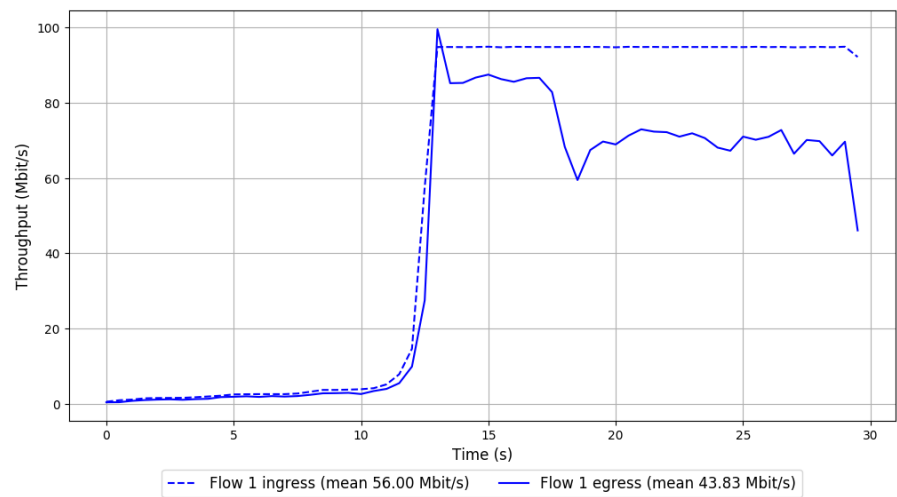
Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 14.89 Mbit/s)   Flow 1 egress (mean 14.87 Mbit/s)

• Flow 1 (95th percentile 40.48 ms)

```
Run 9: Statistics of Copa

Start at: 2018-04-24 08:04:44
End at: 2018-04-24 08:05:15
Local clock offset: -2.598 ms
Remote clock offset: 31.928 ms


# Below is generated by plot.py at 2018-04-24 12:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 45.708 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 45.708 ms
Loss rate: 0.75%
```

Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 32.48 Mbit/s)   Flow 1 egress (mean 32.44 Mbit/s)

Flow 1 (95th percentile 45.71 ms)

```
Run 10: Statistics of Copa

Start at: 2018-04-24 08:26:17
End at: 2018-04-24 08:26:47
Local clock offset: -1.416 ms
Remote clock offset: 36.644 ms


# Below is generated by plot.py at 2018-04-24 12:31:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 40.347 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 40.347 ms
Loss rate: 0.57%
```
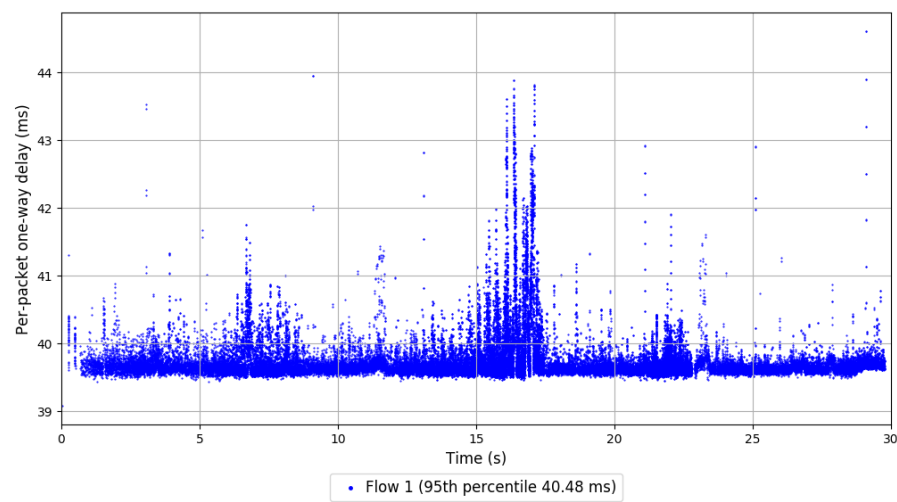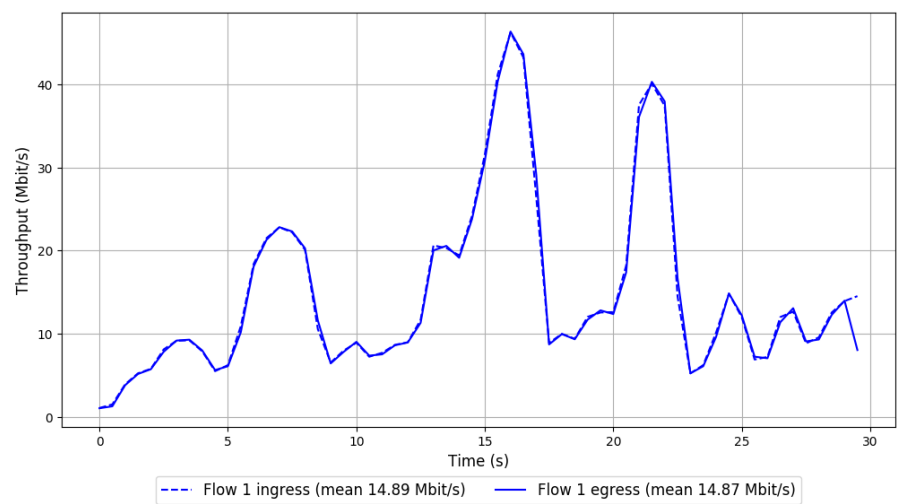
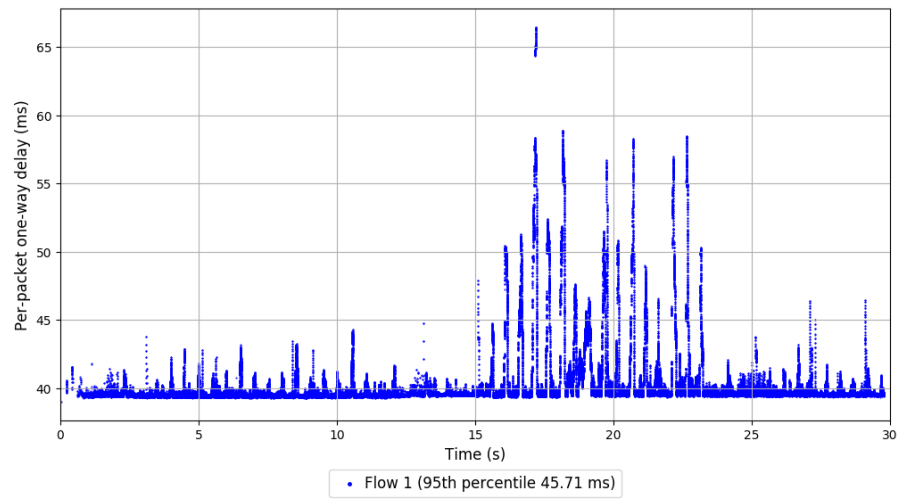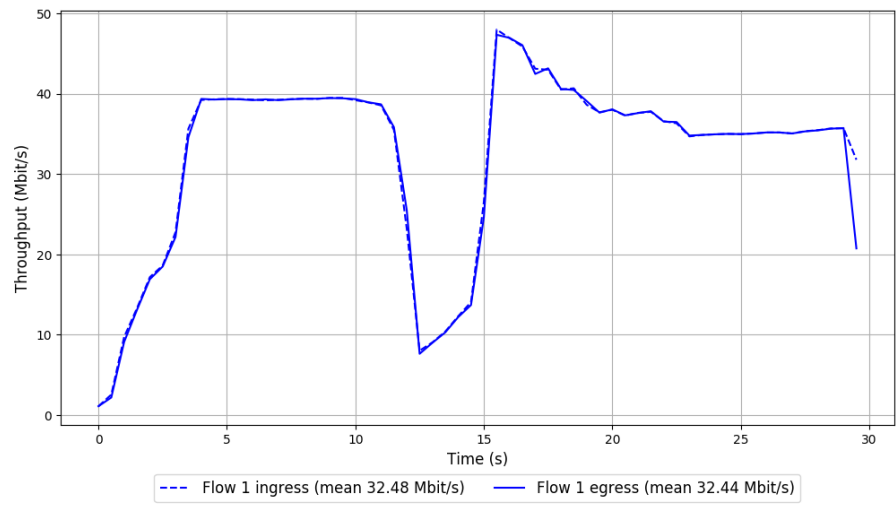Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 16.06 Mbit/s)   Flow 1 egress (mean 16.09 Mbit/s)

Flow 1 (95th percentile 40.35 ms)

```
Run 1: Statistics of FillP

Start at: 2018-04-24 05:10:55
End at: 2018-04-24 05:11:25
Local clock offset: -0.881 ms
Remote clock offset: -1.324 ms


# Below is generated by plot.py at 2018-04-24 12:32:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 50.846 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 50.846 ms
Loss rate: 0.78%
```

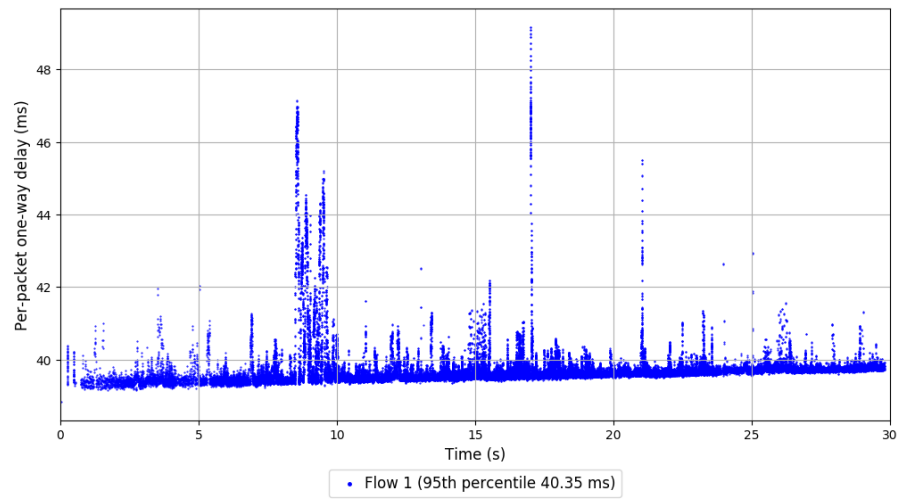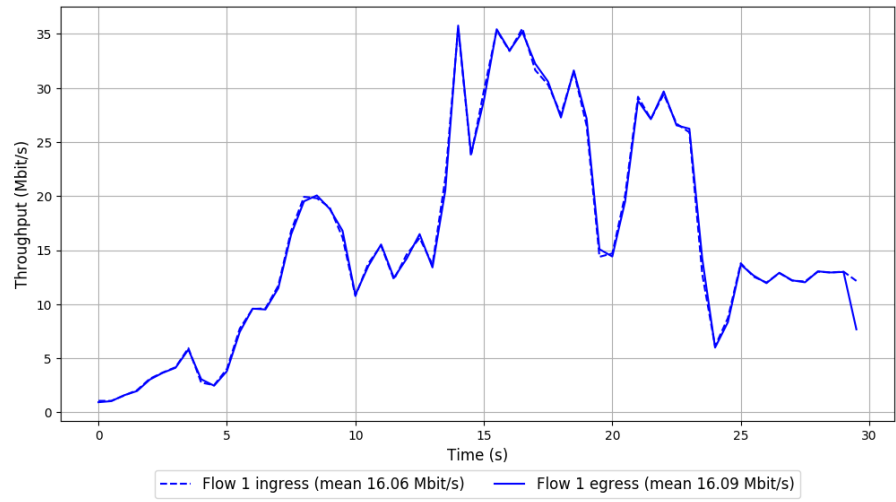Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 87.73 Mbit/s) ---- Flow 1 egress (mean 87.67 Mbit/s)

Flow 1 (95th percentile 50.85 ms)

```
Run 2: Statistics of FillP

Start at: 2018-04-24 05:32:11
End at: 2018-04-24 05:32:41
Local clock offset: -1.554 ms
Remote clock offset: -0.867 ms


# Below is generated by plot.py at 2018-04-24 12:32:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.18 Mbit/s
95th percentile per-packet one-way delay: 55.482 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 87.18 Mbit/s
95th percentile per-packet one-way delay: 55.482 ms
Loss rate: 0.75%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 87.20 Mbit/s) --- Flow 1 egress (mean 87.18 Mbit/s)
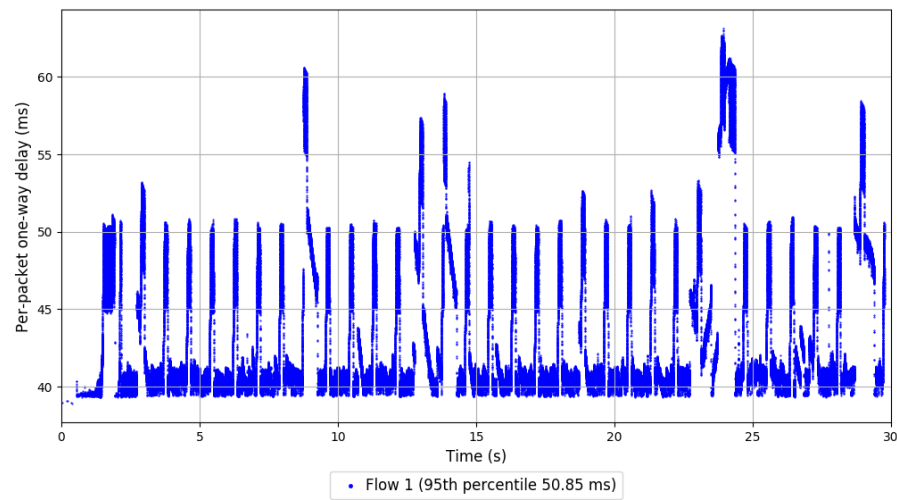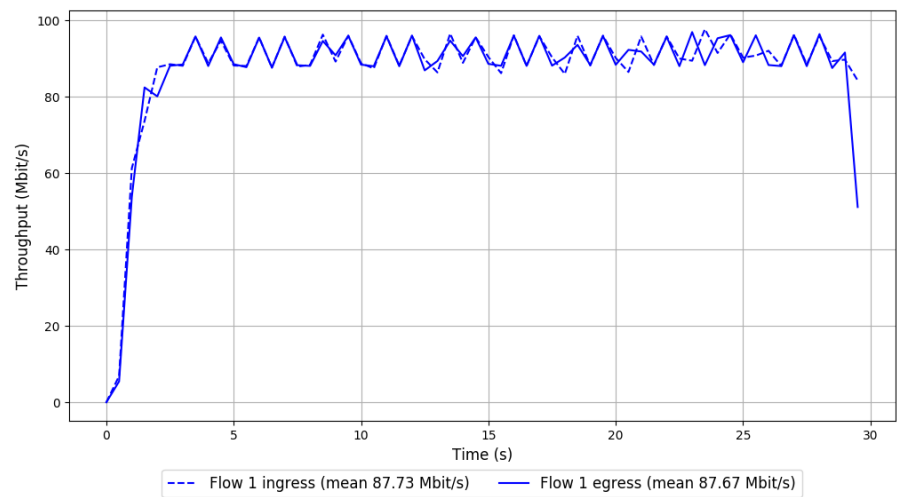

• Flow 1 (95th percentile 55.48 ms)

247

```
Run 3: Statistics of FillP

Start at: 2018-04-24 05:53:30
End at: 2018-04-24 05:54:00
Local clock offset: 1.477 ms
Remote clock offset: 2.476 ms


# Below is generated by plot.py at 2018-04-24 12:32:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 49.266 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 49.266 ms
Loss rate: 0.88%
```
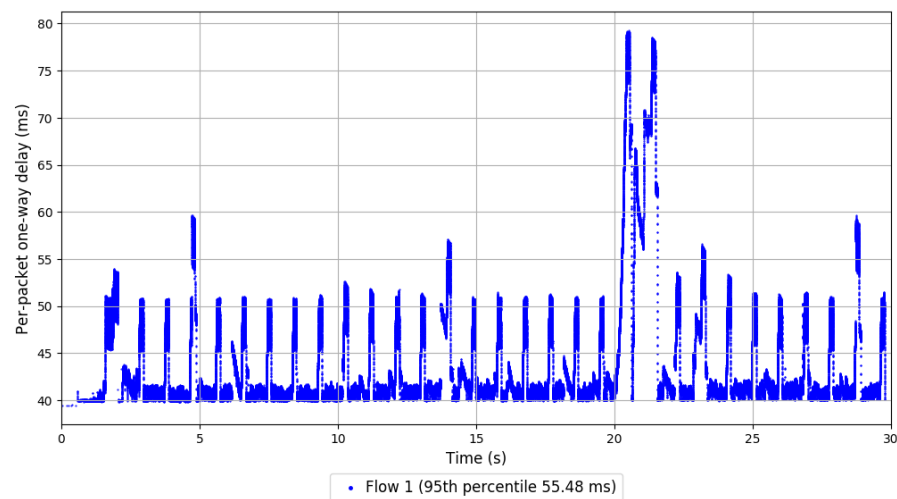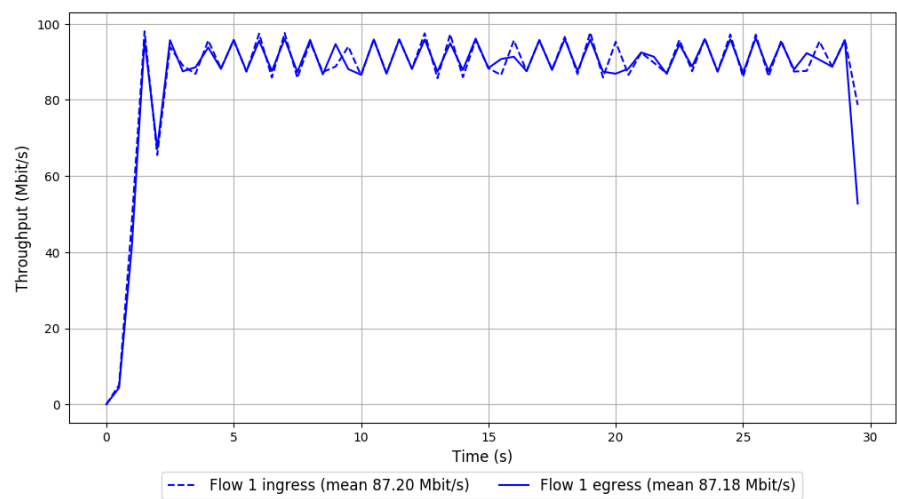
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 87.26 Mbit/s)   Flow 1 egress (mean 87.16 Mbit/s)

Flow 1 (95th percentile 49.27 ms)

249

```
Run 4: Statistics of FillP

Start at: 2018-04-24 06:14:50
End at: 2018-04-24 06:15:20
Local clock offset: 2.485 ms
Remote clock offset: -12.356 ms


# Below is generated by plot.py at 2018-04-24 12:32:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 50.667 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 50.667 ms
Loss rate: 0.74%
```

Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-04-24 06:36:04
End at: 2018-04-24 06:36:34
Local clock offset: 3.591 ms
Remote clock offset: 8.156 ms


# Below is generated by plot.py at 2018-04-24 12:32:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 77.280 ms
Loss rate: 3.94%
-- Flow 1:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 77.280 ms
Loss rate: 3.94%
```
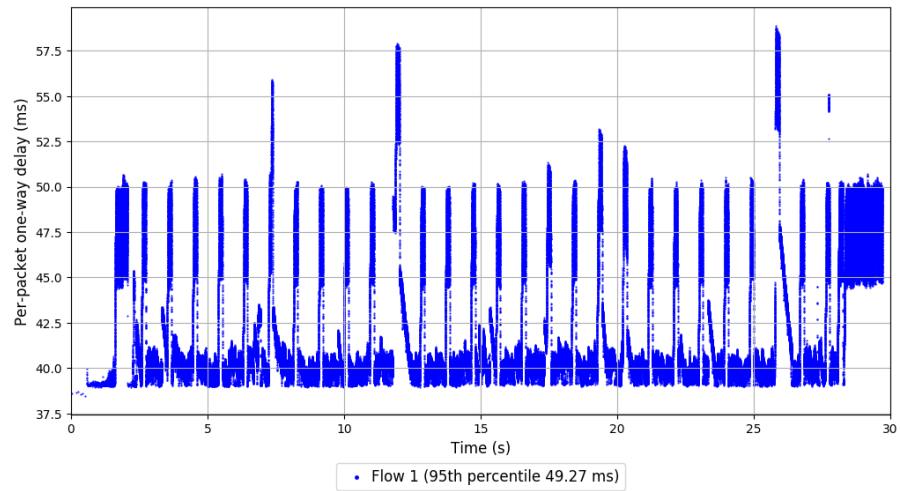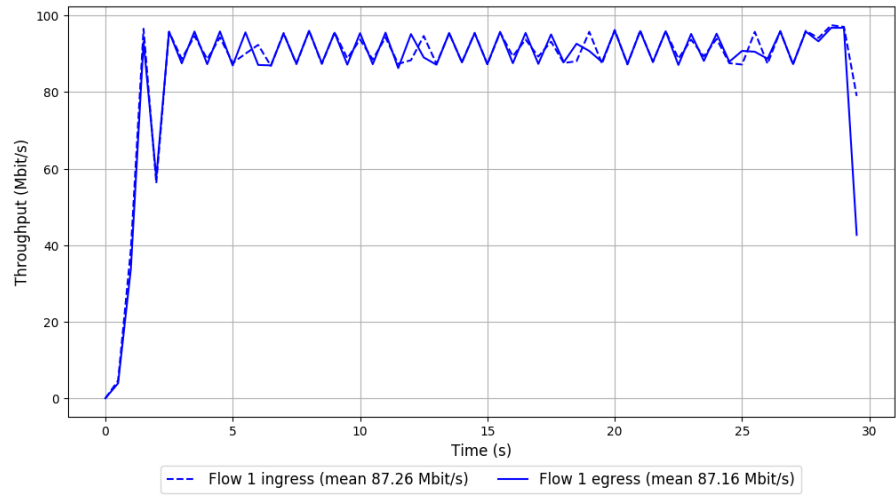
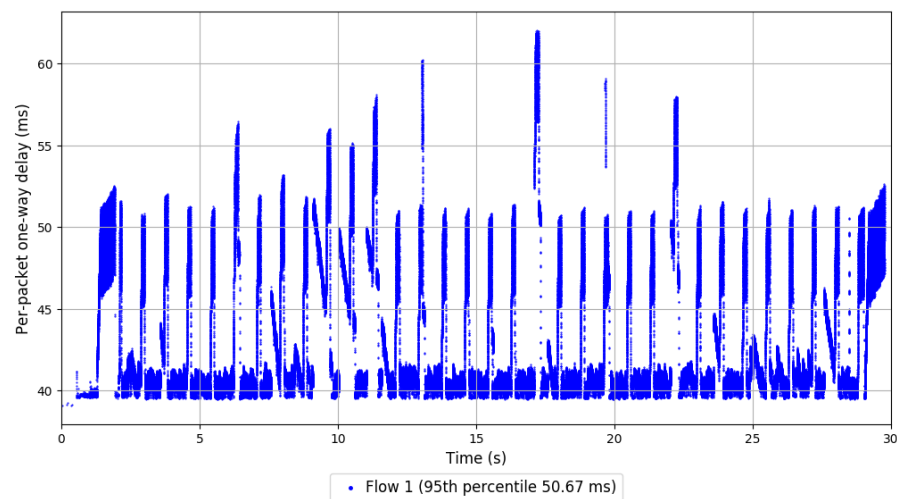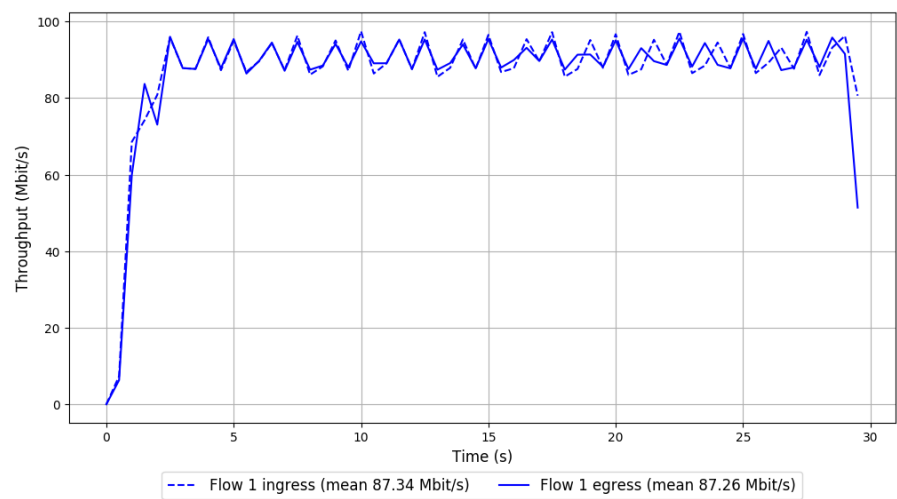## Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 83.27 Mbit/s)   Flow 1 egress (mean 80.60 Mbit/s)

Flow 1 (95th percentile 77.28 ms)

```
Run 6: Statistics of FillP

Start at: 2018-04-24 06:57:22
End at: 2018-04-24 06:57:52
Local clock offset: 3.175 ms
Remote clock offset: 43.245 ms


# Below is generated by plot.py at 2018-04-24 12:33:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 52.961 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 52.961 ms
Loss rate: 0.81%
```

Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 87.07 Mbit/s)   Flow 1 egress (mean 86.95 Mbit/s)

Flow 1 (95th percentile 52.96 ms)

```
Run 7: Statistics of FillP

Start at: 2018-04-24 07:23:41
End at: 2018-04-24 07:24:11
Local clock offset: 0.836 ms
Remote clock offset: 34.213 ms


# Below is generated by plot.py at 2018-04-24 12:33:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.64 Mbit/s
95th percentile per-packet one-way delay: 64.291 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 86.64 Mbit/s
95th percentile per-packet one-way delay: 64.291 ms
Loss rate: 1.08%
```
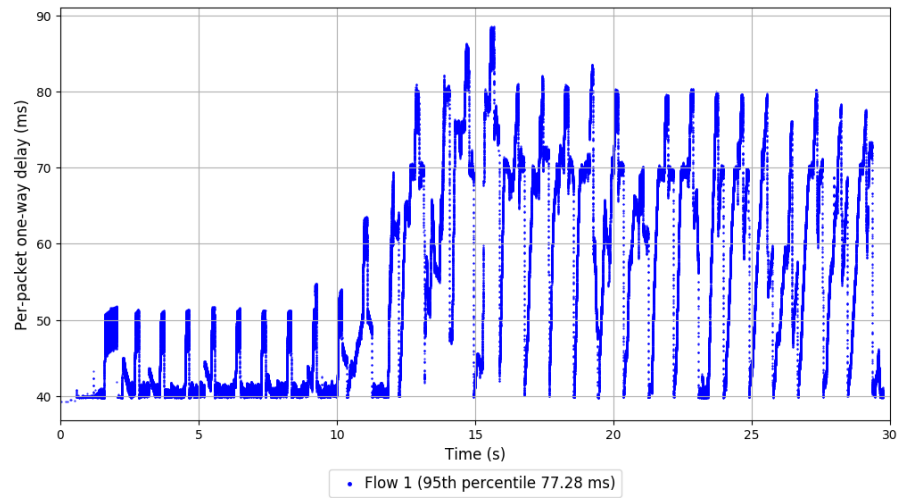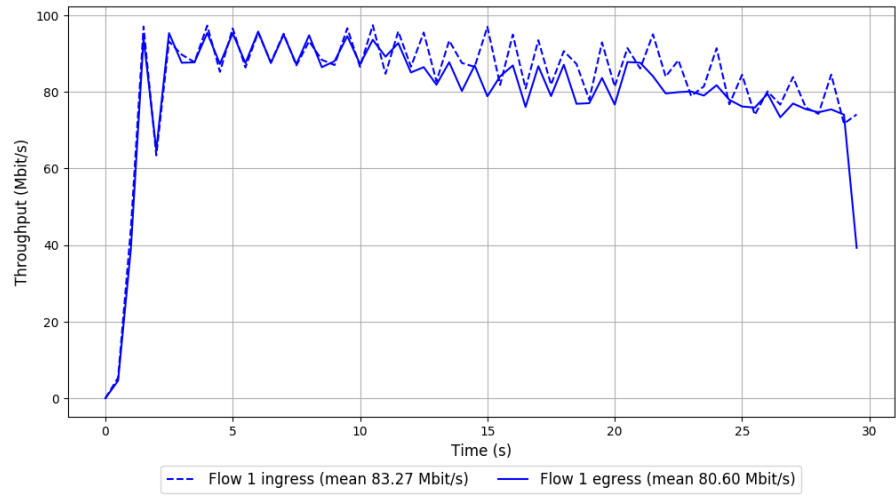
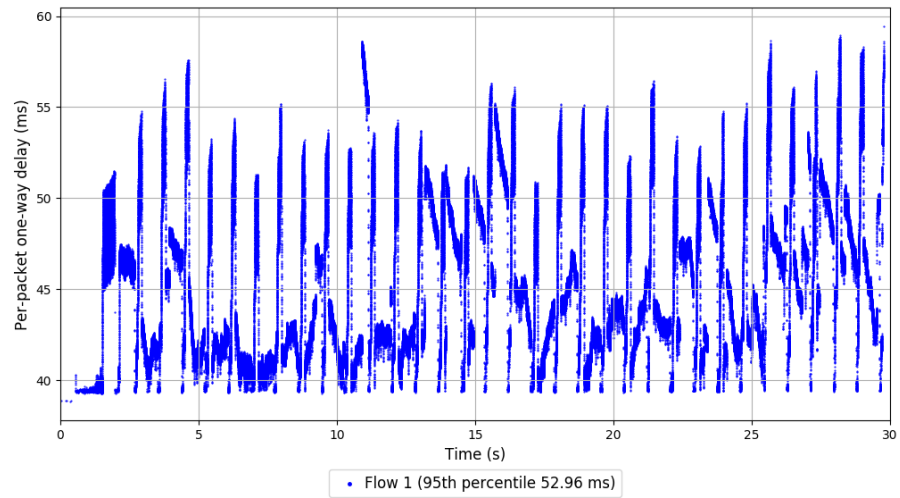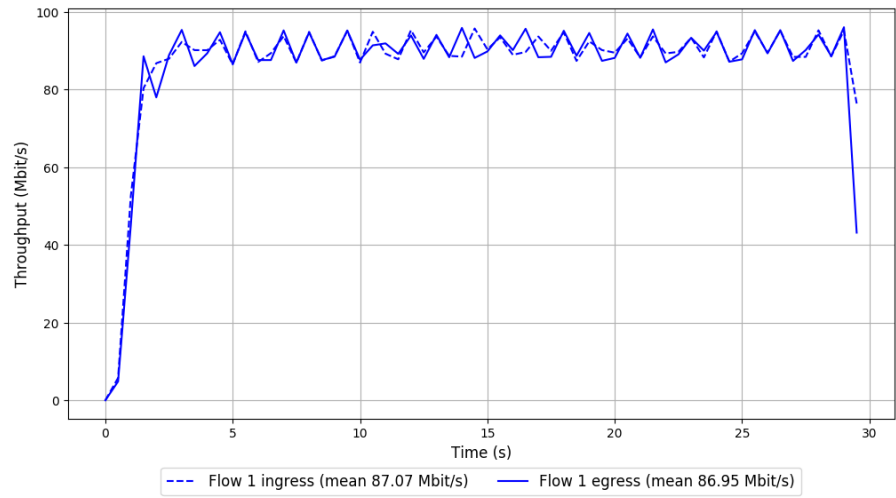Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-04-24 07:45:59
End at: 2018-04-24 07:46:29
Local clock offset: -5.33 ms
Remote clock offset: 9.71 ms


# Below is generated by plot.py at 2018-04-24 12:33:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.57 Mbit/s
95th percentile per-packet one-way delay: 76.246 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 86.57 Mbit/s
95th percentile per-packet one-way delay: 76.246 ms
Loss rate: 1.23%
```
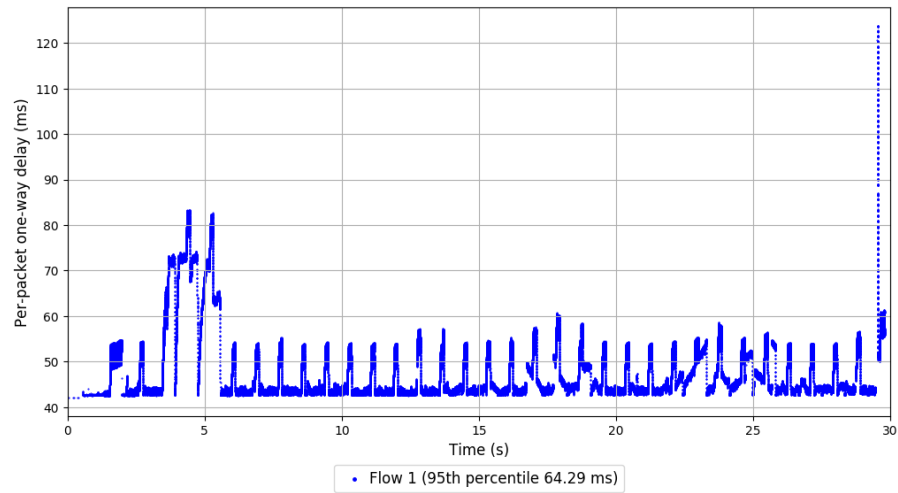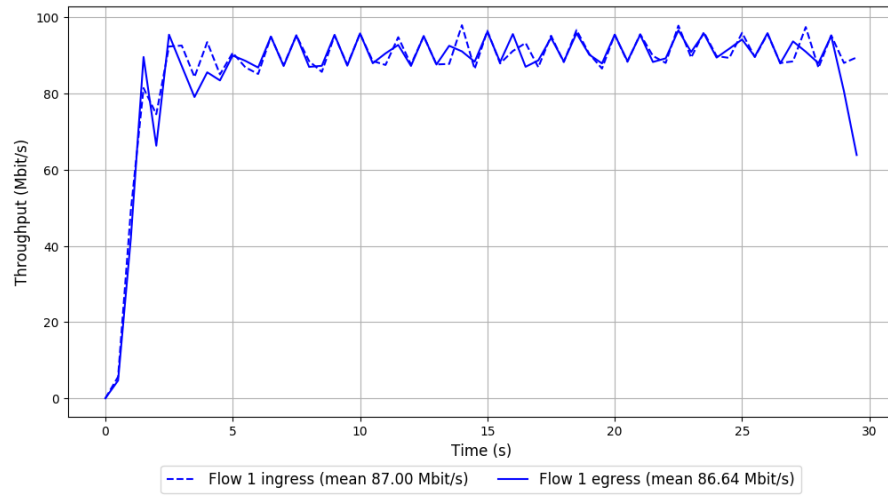
Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 86.95 Mbit/s) --- Flow 1 egress (mean 86.57 Mbit/s)

Flow 1 (95th percentile 76.25 ms)

259

```
Run 9: Statistics of FillP

Start at: 2018-04-24 08:07:16
End at: 2018-04-24 08:07:46
Local clock offset: -1.882 ms
Remote clock offset: 32.898 ms


# Below is generated by plot.py at 2018-04-24 12:33:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.84 Mbit/s
95th percentile per-packet one-way delay: 81.913 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 86.84 Mbit/s
95th percentile per-packet one-way delay: 81.913 ms
Loss rate: 2.35%
```

Run 9: Report of FillP — Data Link

Flow 1 ingress (mean 88.35 Mbit/s)   Flow 1 egress (mean 86.84 Mbit/s)

• Flow 1 (95th percentile 81.91 ms)

```
Run 10: Statistics of FillP

Start at: 2018-04-24 08:28:46
End at: 2018-04-24 08:29:16
Local clock offset: -1.48 ms
Remote clock offset: 38.978 ms


# Below is generated by plot.py at 2018-04-24 12:33:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.03 Mbit/s
95th percentile per-packet one-way delay: 79.931 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 86.03 Mbit/s
95th percentile per-packet one-way delay: 79.931 ms
Loss rate: 1.58%
```
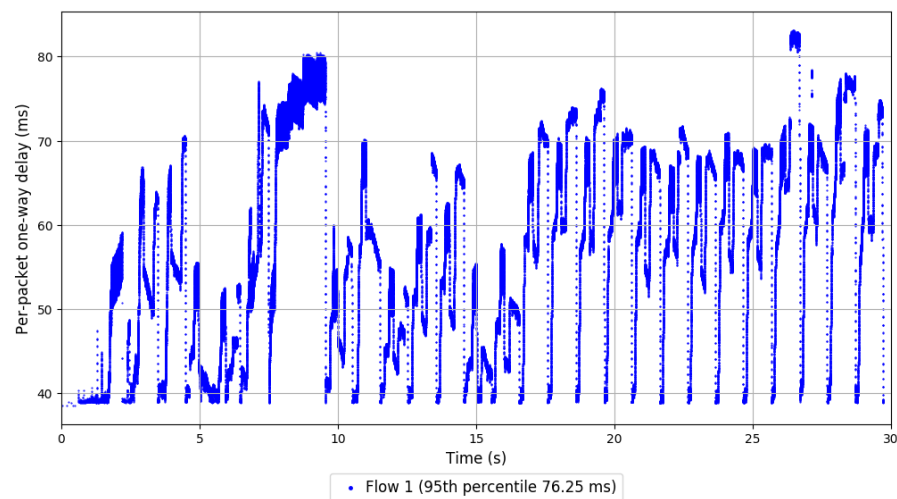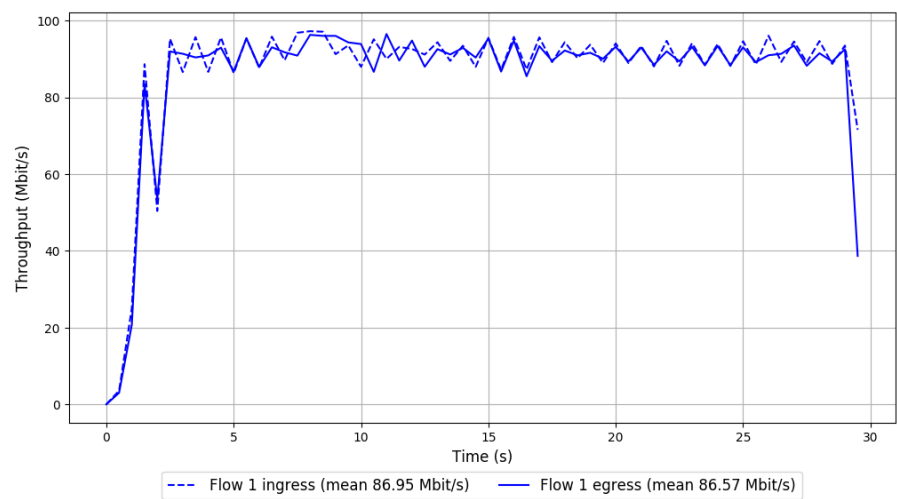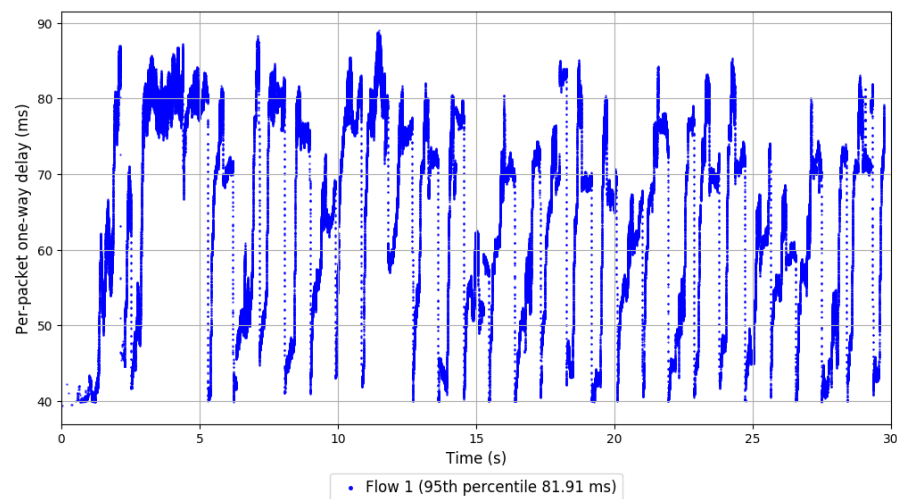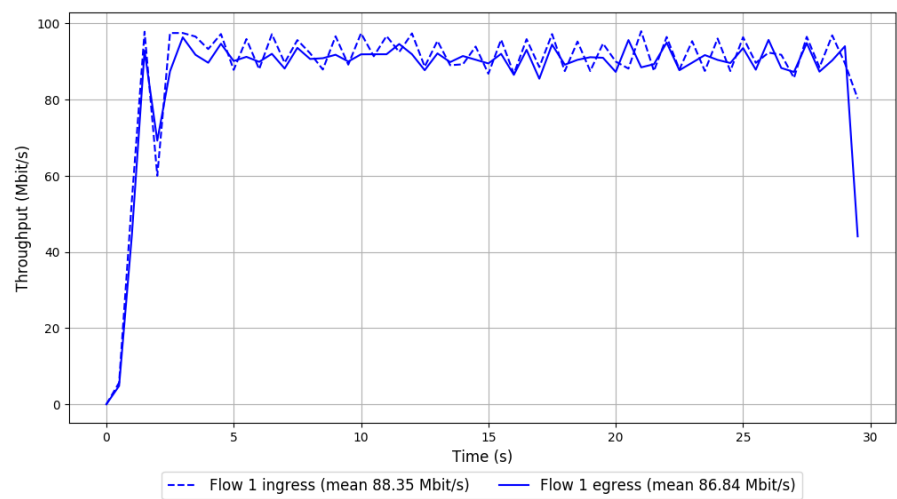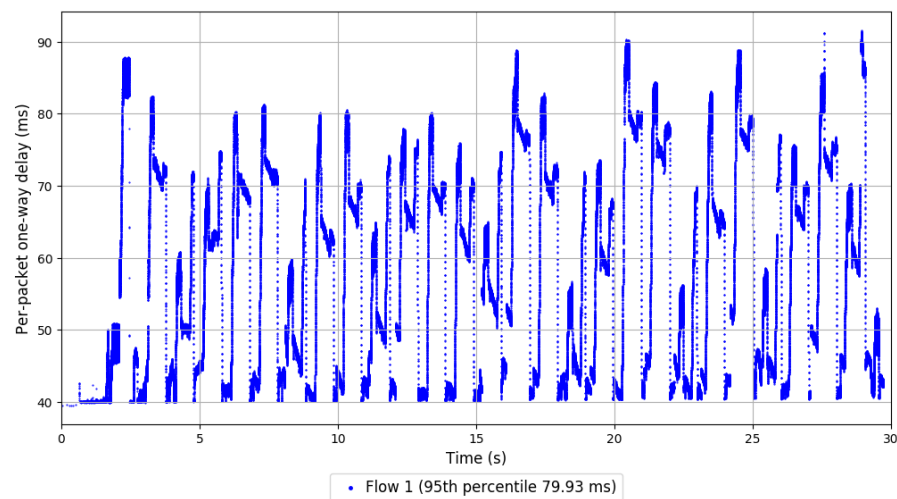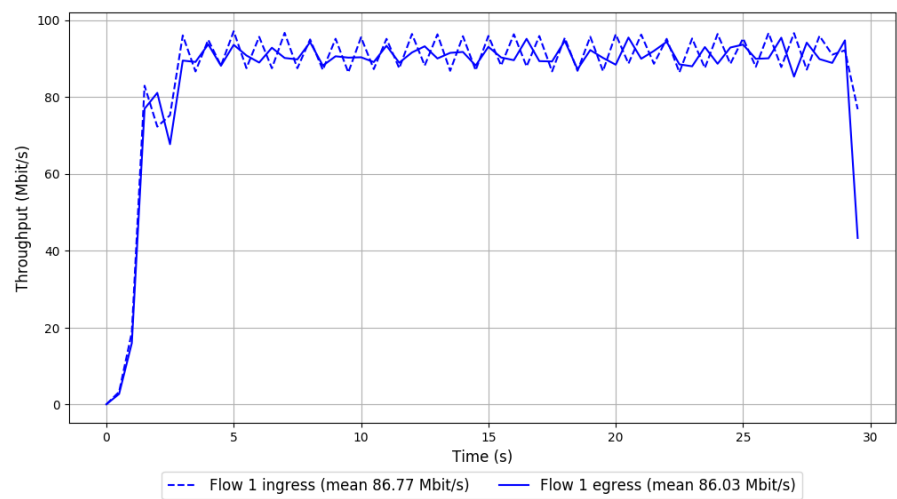
Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 86.77 Mbit/s)   Flow 1 egress (mean 86.03 Mbit/s)

• Flow 1 (95th percentile 79.93 ms)

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

Start at: 2018-04-24 05:14:41
End at: 2018-04-24 05:15:11
Local clock offset: -2.728 ms
Remote clock offset: -1.279 ms


# Below is generated by plot.py at 2018-04-24 12:33:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 57.164 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 57.164 ms
Loss rate: 0.78%
```

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

Flow 1 ingress (mean 84.03 Mbit/s) --- Flow 1 egress (mean 83.97 Mbit/s)
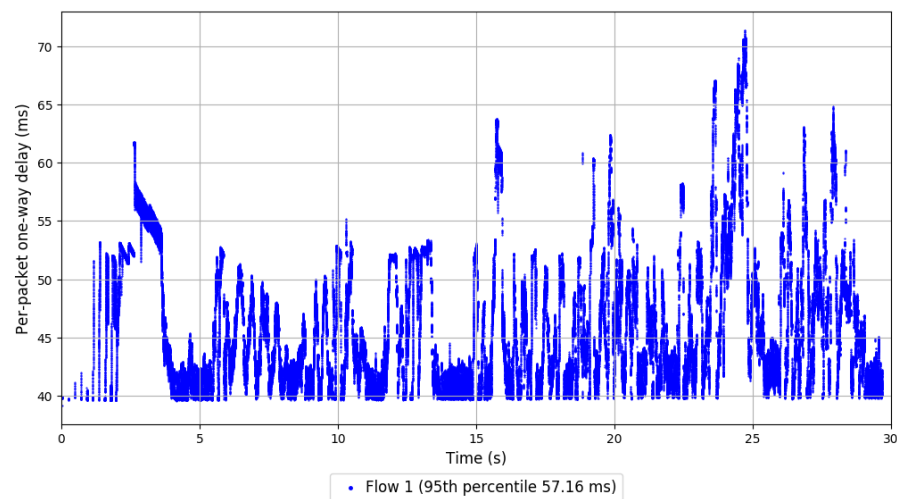

• Flow 1 (95th percentile 57.16 ms)

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

Start at: 2018-04-24 05:35:58
End at: 2018-04-24 05:36:28
Local clock offset: -1.592 ms
Remote clock offset: 0.285 ms


# Below is generated by plot.py at 2018-04-24 12:33:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.38 Mbit/s
95th percentile per-packet one-way delay: 49.597 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 46.38 Mbit/s
95th percentile per-packet one-way delay: 49.597 ms
Loss rate: 0.63%
```

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

Flow 1 ingress (mean 46.36 Mbit/s)   Flow 1 egress (mean 46.38 Mbit/s)
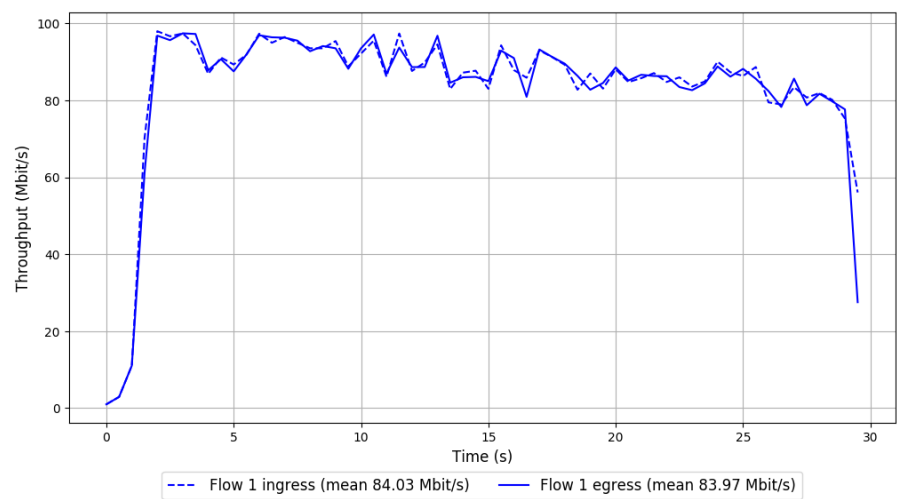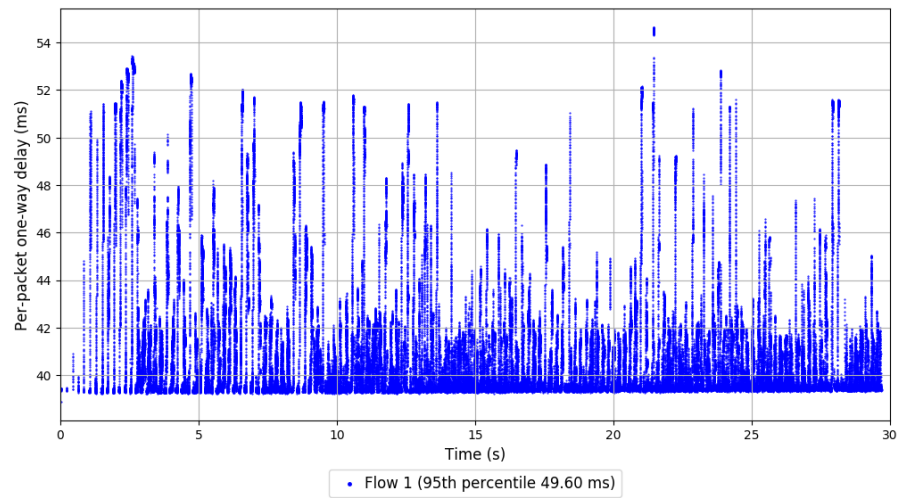

• Flow 1 (95th percentile 49.60 ms)

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

Start at: 2018-04-24 05:57:18
End at: 2018-04-24 05:57:48
Local clock offset: 1.886 ms
Remote clock offset: 2.7 ms


# Below is generated by plot.py at 2018-04-24 12:33:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.71 Mbit/s
95th percentile per-packet one-way delay: 54.660 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 83.71 Mbit/s
95th percentile per-packet one-way delay: 54.660 ms
Loss rate: 0.73%
```

Run 3: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 83.69 Mbit/s)   Flow 1 egress (mean 83.71 Mbit/s)

Flow 1 (95th percentile 54.66 ms)

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

Start at: 2018-04-24 06:18:36
End at: 2018-04-24 06:19:06
Local clock offset: 2.772 ms
Remote clock offset: -12.202 ms


# Below is generated by plot.py at 2018-04-24 12:33:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 41.645 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 41.645 ms
Loss rate: 0.47%
```
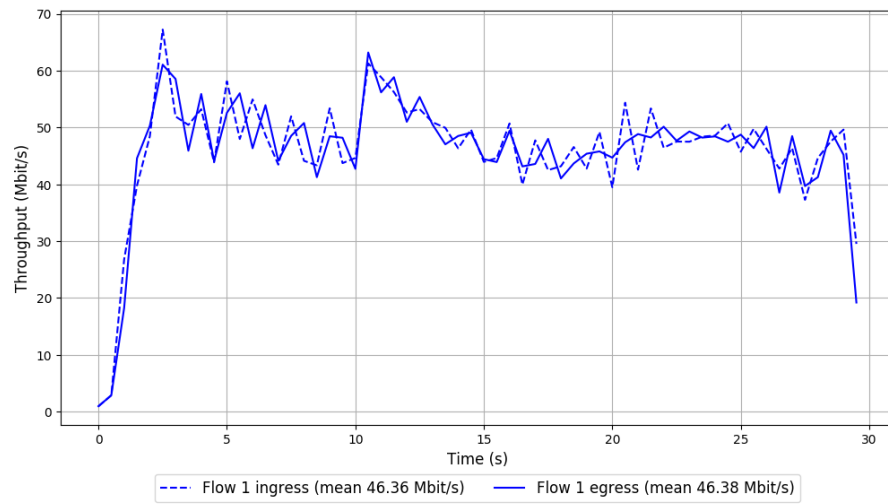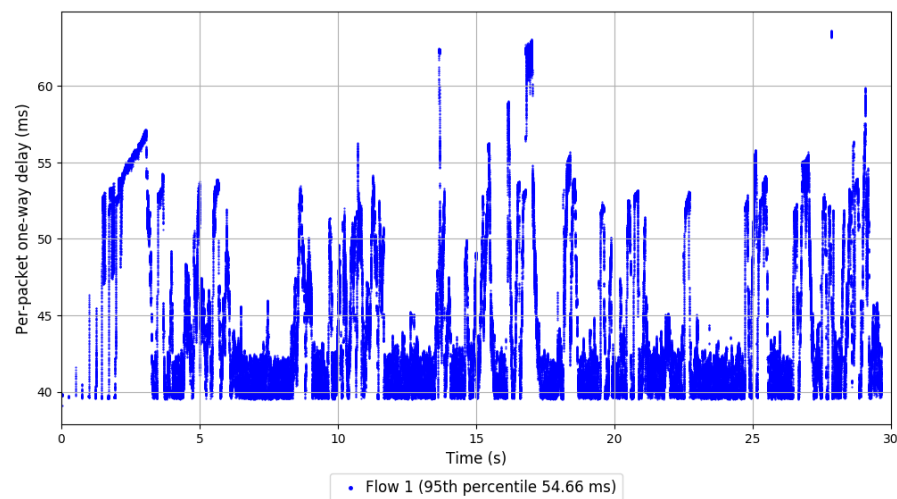
Run 4: Report of Indigo-1-32 — Data Link

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

Start at: 2018-04-24 06:39:51
End at: 2018-04-24 06:40:21
Local clock offset: 3.672 ms
Remote clock offset: 8.449 ms


# Below is generated by plot.py at 2018-04-24 12:34:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.86 Mbit/s
95th percentile per-packet one-way delay: 51.475 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 65.86 Mbit/s
95th percentile per-packet one-way delay: 51.475 ms
Loss rate: 0.67%
```
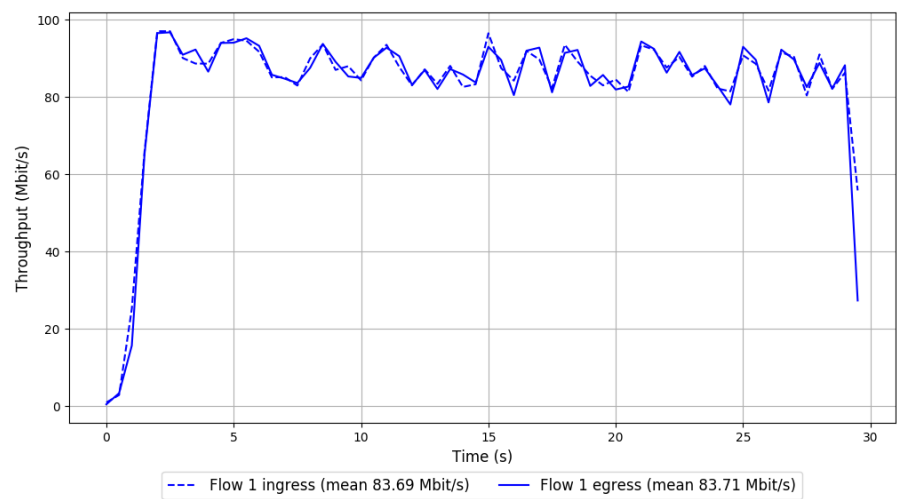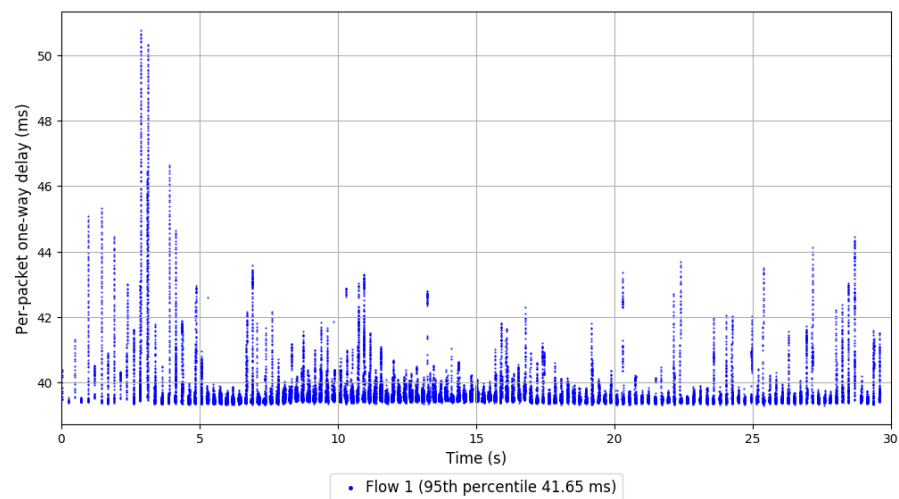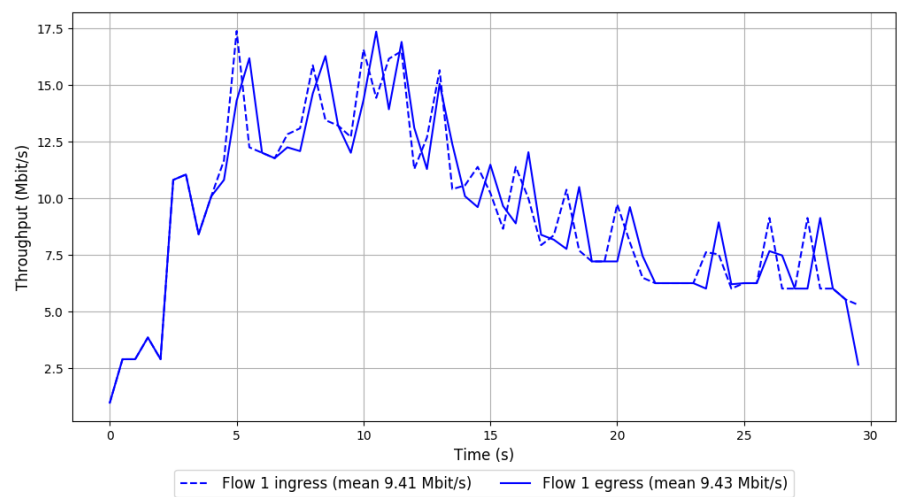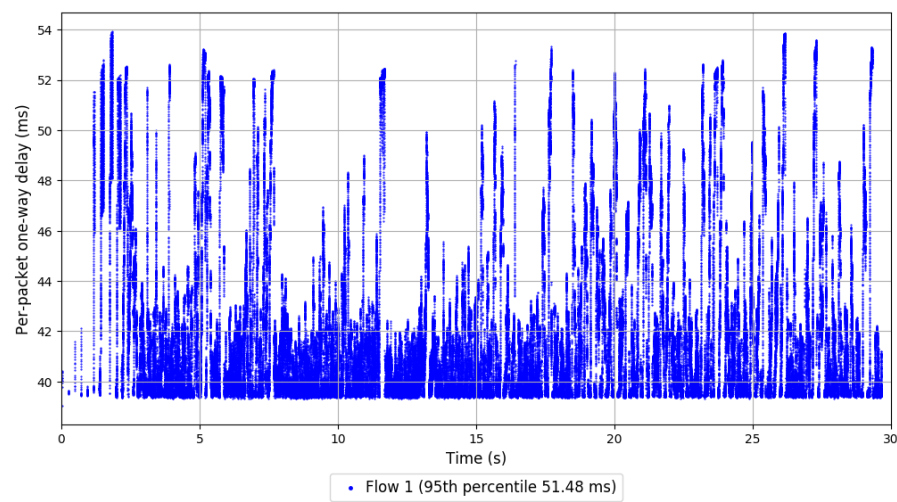
Run 5: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 65.80 Mbit/s)   Flow 1 egress (mean 65.86 Mbit/s)

Flow 1 (95th percentile 51.48 ms)

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

Start at: 2018-04-24 07:01:07
End at: 2018-04-24 07:01:37
Local clock offset: 3.348 ms
Remote clock offset: 43.274 ms


# Below is generated by plot.py at 2018-04-24 12:34:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.86 Mbit/s
95th percentile per-packet one-way delay: 65.232 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 88.86 Mbit/s
95th percentile per-packet one-way delay: 65.232 ms
Loss rate: 1.07%
```

Run 6: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 89.21 Mbit/s)   Flow 1 egress (mean 88.86 Mbit/s)

Flow 1 (95th percentile 65.23 ms)

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

Start at: 2018-04-24 07:27:26
End at: 2018-04-24 07:27:56
Local clock offset: -0.783 ms
Remote clock offset: 12.978 ms


# Below is generated by plot.py at 2018-04-24 12:34:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.82 Mbit/s
95th percentile per-packet one-way delay: 52.655 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 79.82 Mbit/s
95th percentile per-packet one-way delay: 52.655 ms
Loss rate: 0.65%
```
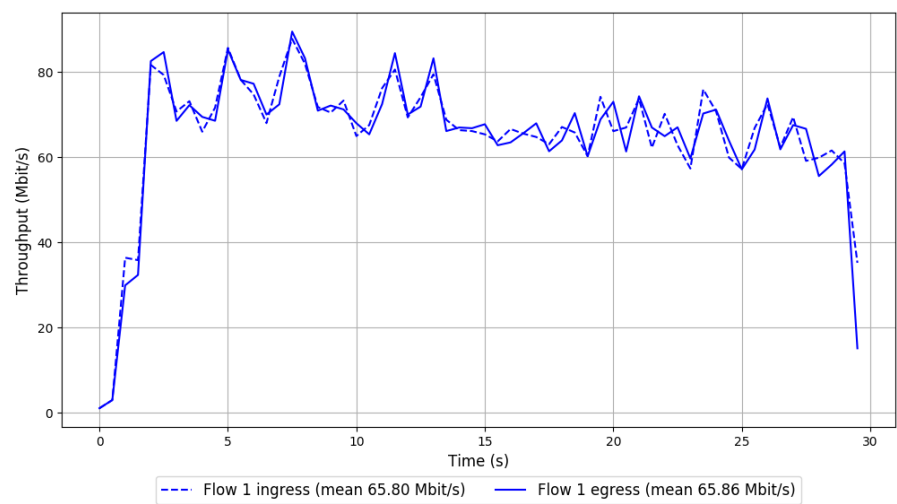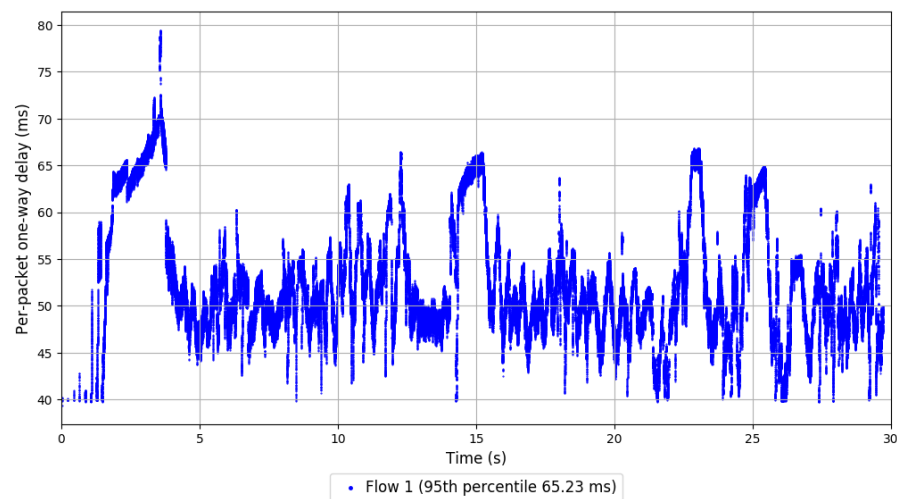
Run 7: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 79.79 Mbit/s)   Flow 1 egress (mean 79.82 Mbit/s)

• Flow 1 (95th percentile 52.66 ms)

277

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

Start at: 2018-04-24 07:49:47
End at: 2018-04-24 07:50:17
Local clock offset: -5.763 ms
Remote clock offset: 12.917 ms


# Below is generated by plot.py at 2018-04-24 12:34:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 56.540 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 56.540 ms
Loss rate: 0.67%
```
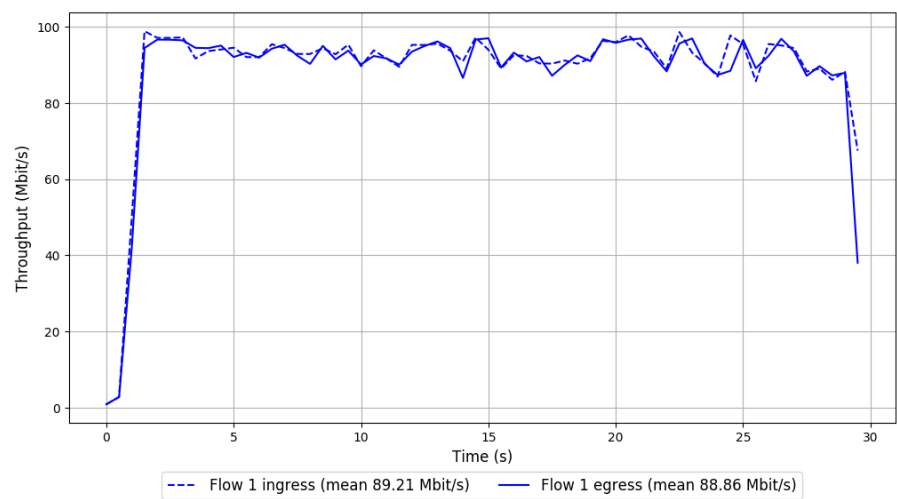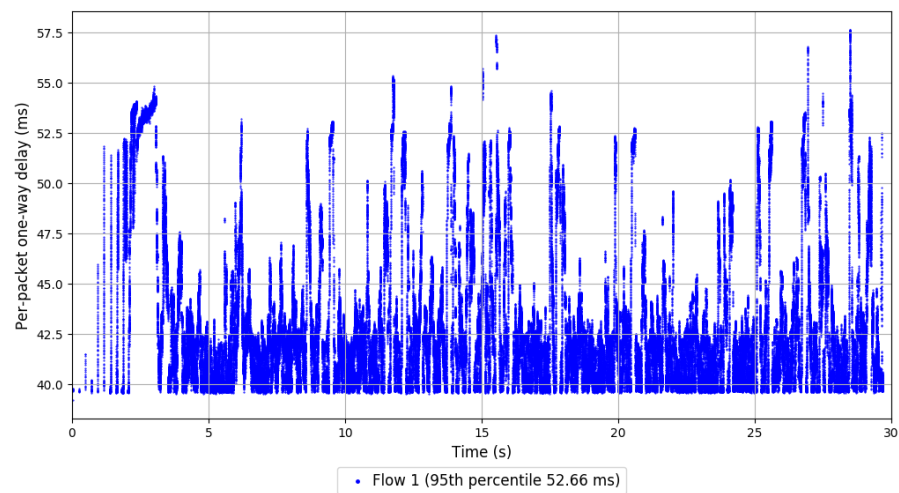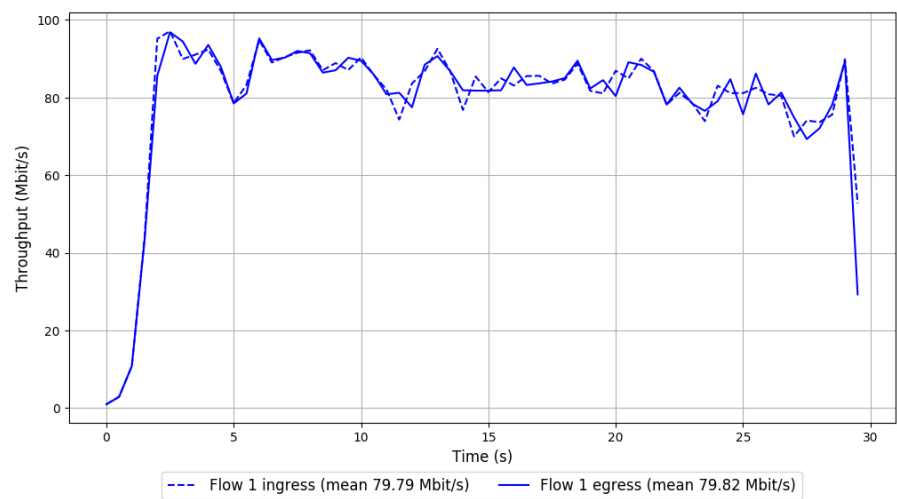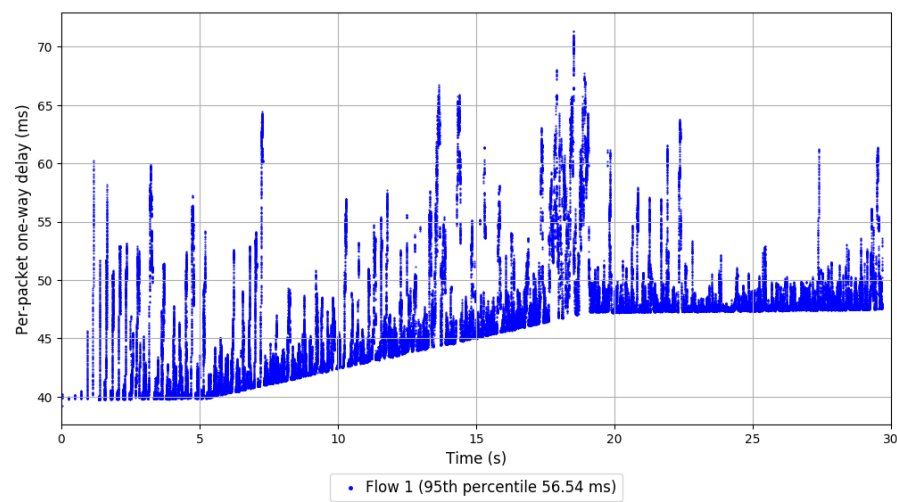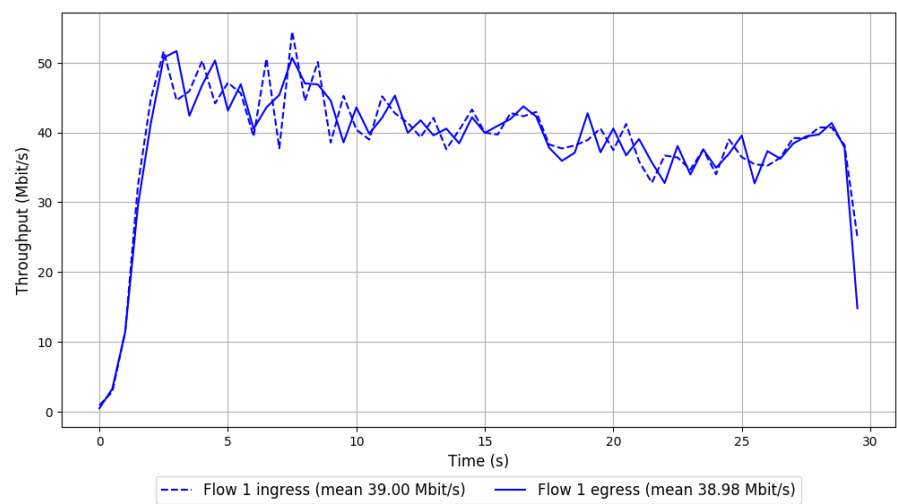
Run 8: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 39.00 Mbit/s)   Flow 1 egress (mean 38.98 Mbit/s)

Flow 1 (95th percentile 56.54 ms)

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

Start at: 2018-04-24 08:11:02
End at: 2018-04-24 08:11:32
Local clock offset: -1.735 ms
Remote clock offset: 34.051 ms


# Below is generated by plot.py at 2018-04-24 12:34:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.85 Mbit/s
95th percentile per-packet one-way delay: 170.597 ms
Loss rate: 18.00%
-- Flow 1:
Average throughput: 62.85 Mbit/s
95th percentile per-packet one-way delay: 170.597 ms
Loss rate: 18.00%
```

Run 9: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 75.88 Mbit/s) ----- Flow 1 egress (mean 62.85 Mbit/s) ——
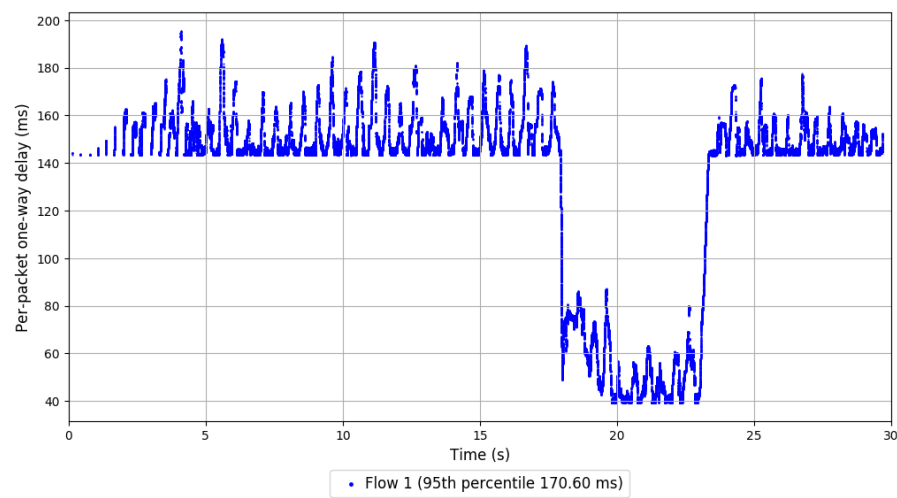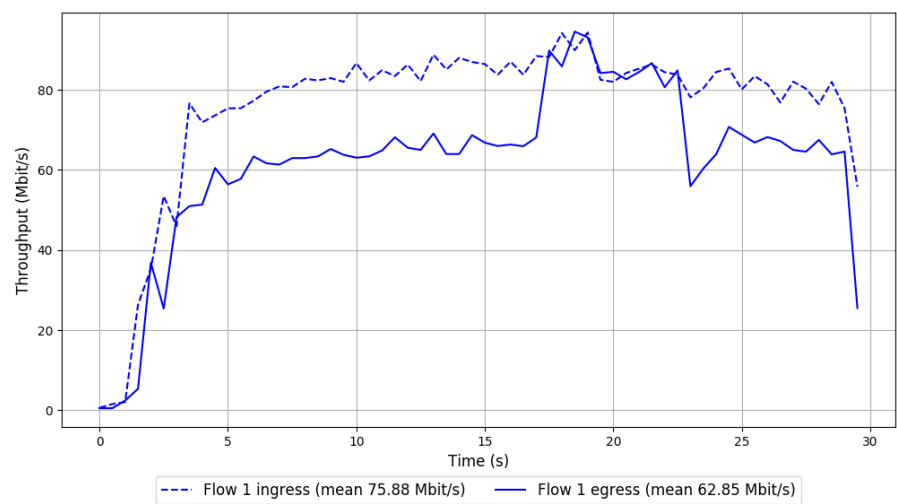

· Flow 1 (95th percentile 170.60 ms)

Run 10: Statistics of Indigo-1-32

Start at: 2018-04-24 08:32:46
End at: 2018-04-24 08:33:16
Local clock offset: -2.227 ms
Remote clock offset: 42.042 ms

Run 10: Report of Indigo-1-32 — Data Link

Figure is missing

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-04-24 05:23:25
End at: 2018-04-24 05:23:55
Local clock offset: -2.776 ms
Remote clock offset: -1.182 ms


# Below is generated by plot.py at 2018-04-24 12:34:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 44.178 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 44.178 ms
Loss rate: 1.13%
```
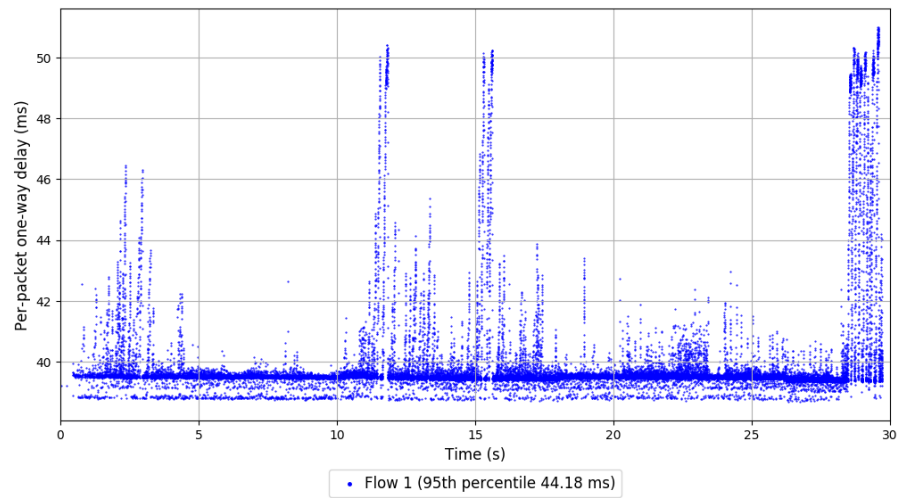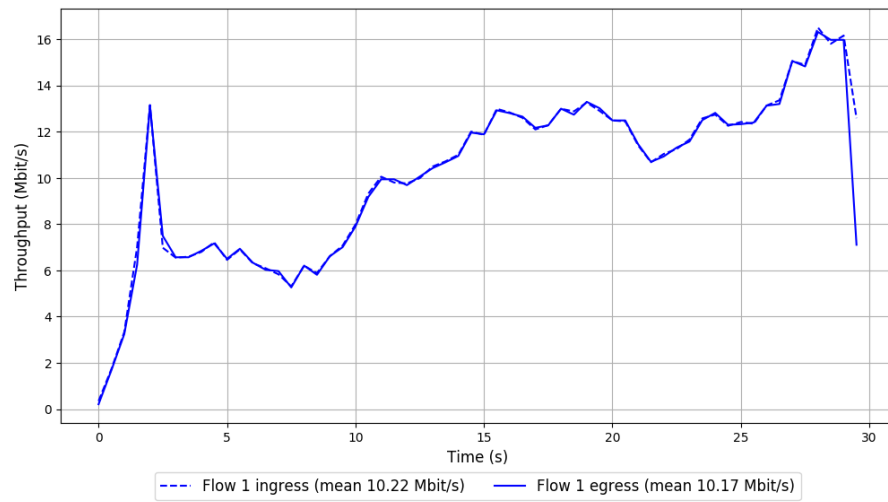
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-04-24 05:44:41
End at: 2018-04-24 05:45:11
Local clock offset: 0.292 ms
Remote clock offset: 1.679 ms


# Below is generated by plot.py at 2018-04-24 12:34:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 39.066 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 39.066 ms
Loss rate: 1.44%
```
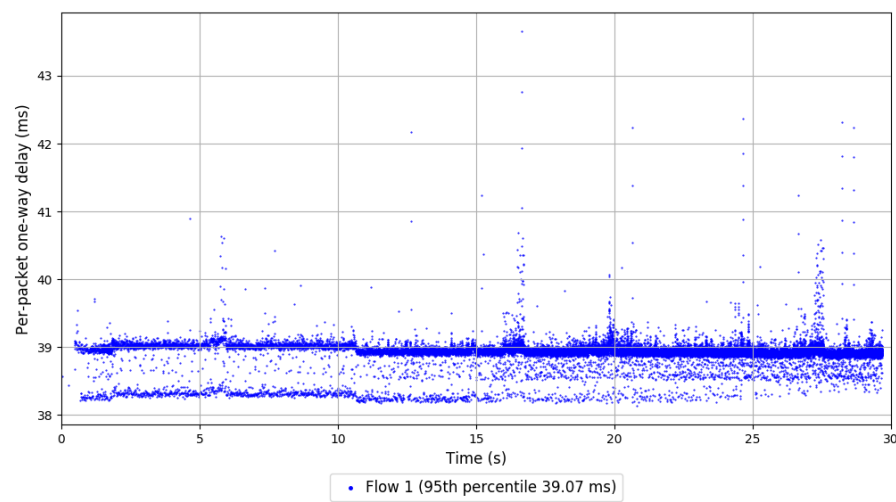
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 9.27 Mbit/s) --- Flow 1 egress (mean 9.20 Mbit/s)

Flow 1 (95th percentile 39.07 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-04-24 06:06:02
End at: 2018-04-24 06:06:32
Local clock offset: 2.042 ms
Remote clock offset: 30.612 ms


# Below is generated by plot.py at 2018-04-24 12:34:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 39.683 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 39.683 ms
Loss rate: 1.46%
```
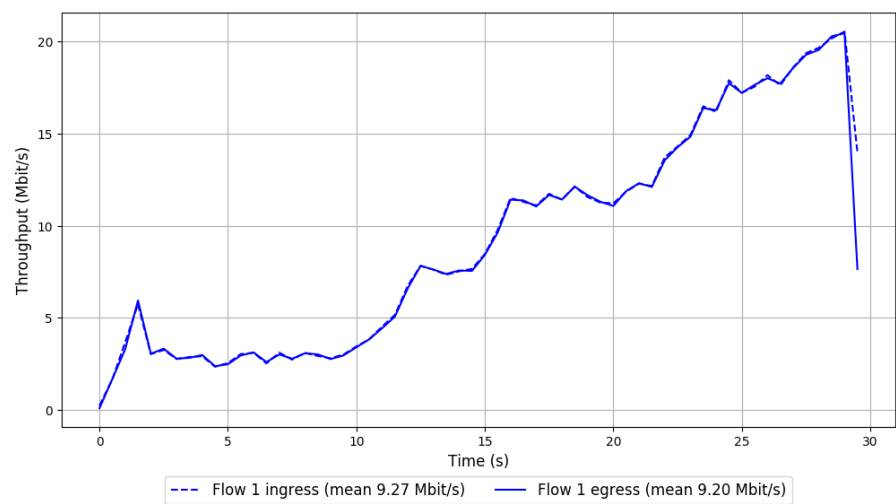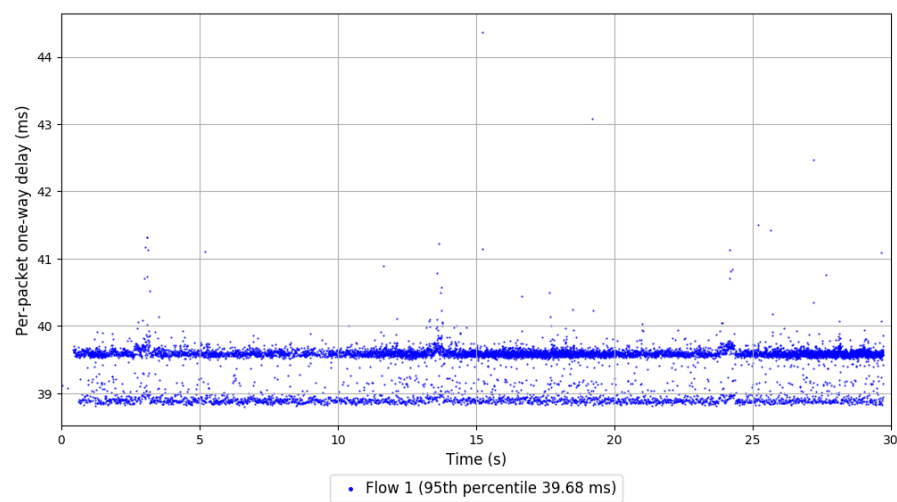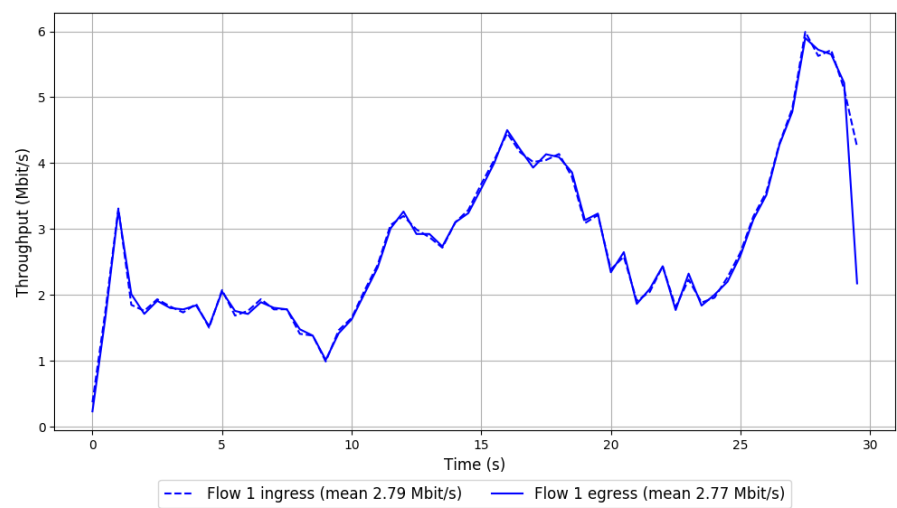
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 2.79 Mbit/s) ---   Flow 1 egress (mean 2.77 Mbit/s) ——

• Flow 1 (95th percentile 39.68 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-04-24 06:27:16
End at: 2018-04-24 06:27:46
Local clock offset: 3.06 ms
Remote clock offset: -11.618 ms


# Below is generated by plot.py at 2018-04-24 12:34:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.07 Mbit/s
95th percentile per-packet one-way delay: 39.236 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 9.07 Mbit/s
95th percentile per-packet one-way delay: 39.236 ms
Loss rate: 0.98%
```

Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 9.09 Mbit/s) — — — — Flow 1 egress (mean 9.07 Mbit/s)
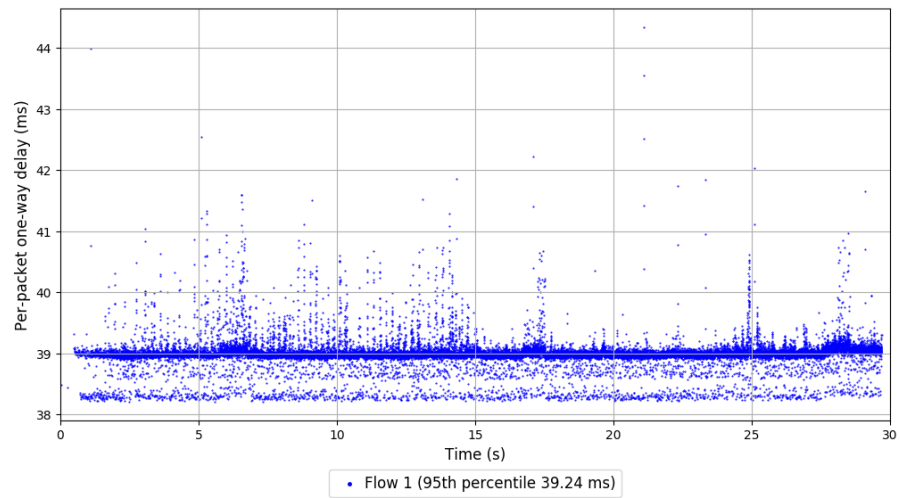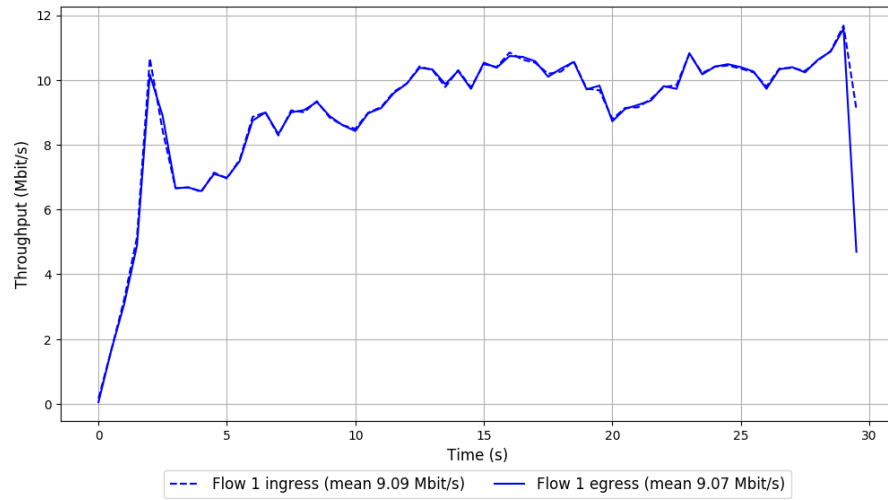

Flow 1 (95th percentile 39.24 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-04-24 06:48:33
End at: 2018-04-24 06:49:03
Local clock offset: 3.646 ms
Remote clock offset: 9.034 ms


# Below is generated by plot.py at 2018-04-24 12:34:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 47.757 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 47.757 ms
Loss rate: 1.14%
```
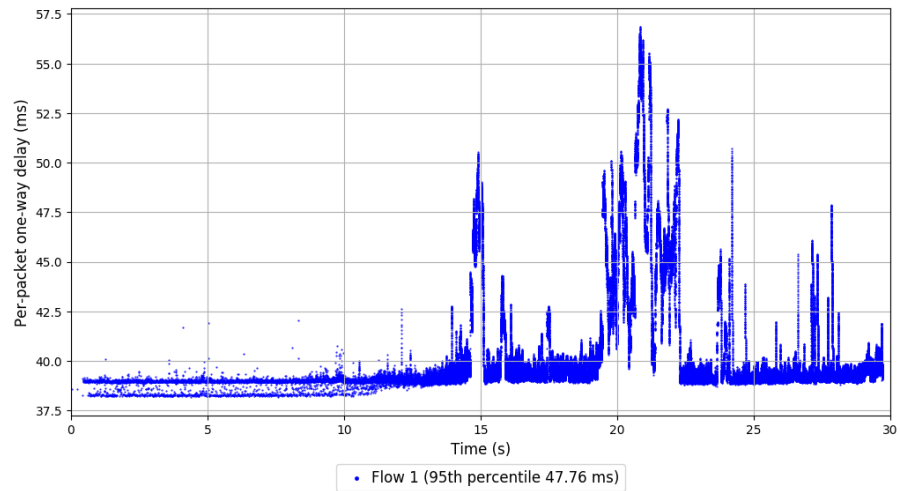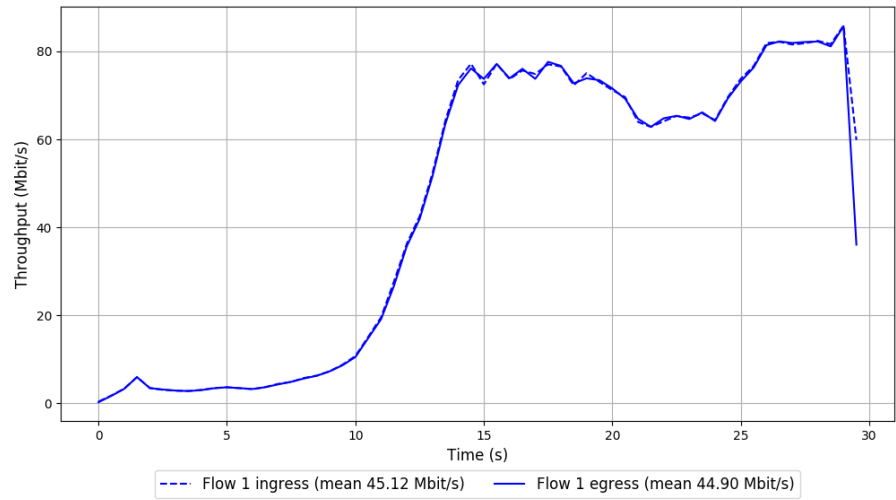
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 45.12 Mbit/s) --- Flow 1 egress (mean 44.90 Mbit/s)

Flow 1 (95th percentile 47.76 ms)

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-04-24 07:09:48
End at: 2018-04-24 07:10:18
Local clock offset: 3.173 ms
Remote clock offset: 43.816 ms


# Below is generated by plot.py at 2018-04-24 12:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 55.270 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 55.270 ms
Loss rate: 1.24%
```
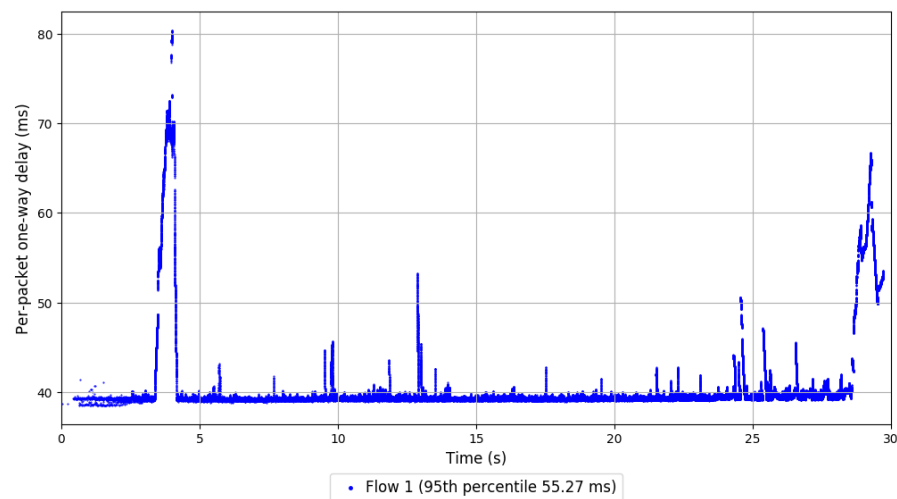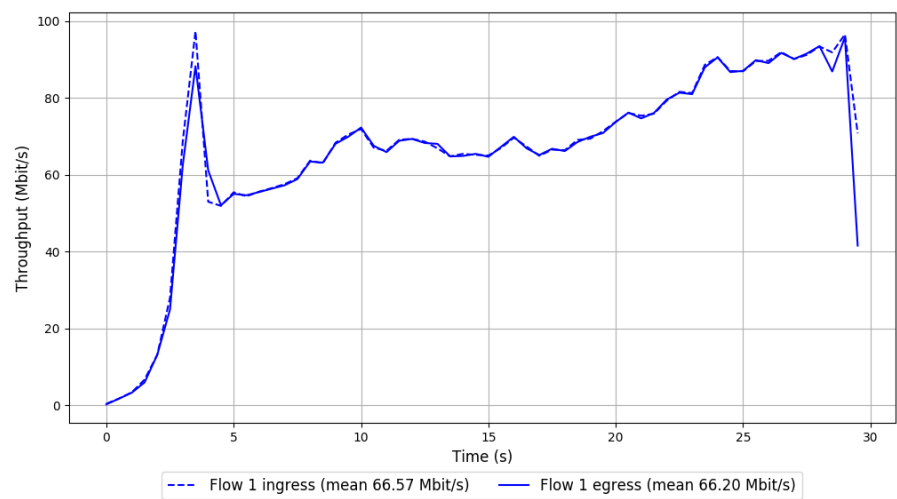
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 66.57 Mbit/s) --- Flow 1 egress (mean 66.20 Mbit/s)

Flow 1 (95th percentile 55.27 ms)

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-04-24 07:37:14
End at: 2018-04-24 07:37:44
Local clock offset: -3.479 ms
Remote clock offset: 10.869 ms


# Below is generated by plot.py at 2018-04-24 12:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 39.396 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 39.396 ms
Loss rate: 1.30%
```

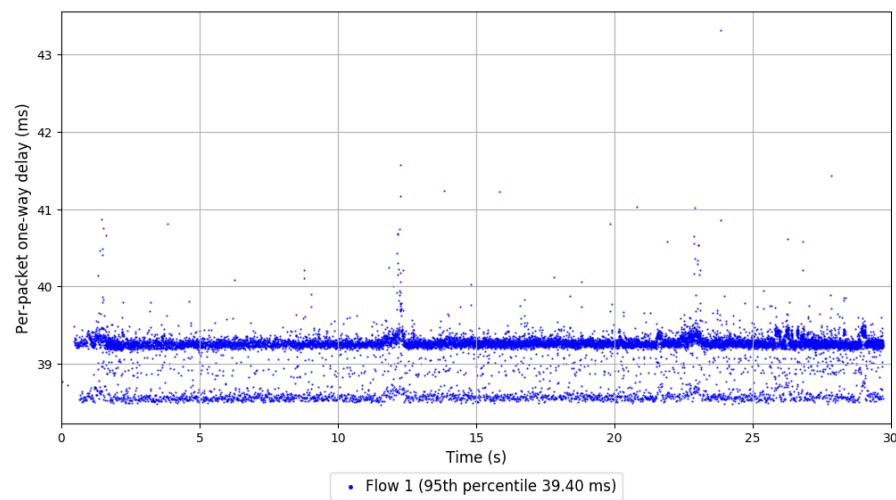## Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-04-24 07:58:29
End at: 2018-04-24 07:58:59
Local clock offset: -4.146 ms
Remote clock offset: 28.833 ms


# Below is generated by plot.py at 2018-04-24 12:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 40.300 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 40.300 ms
Loss rate: 1.44%
```
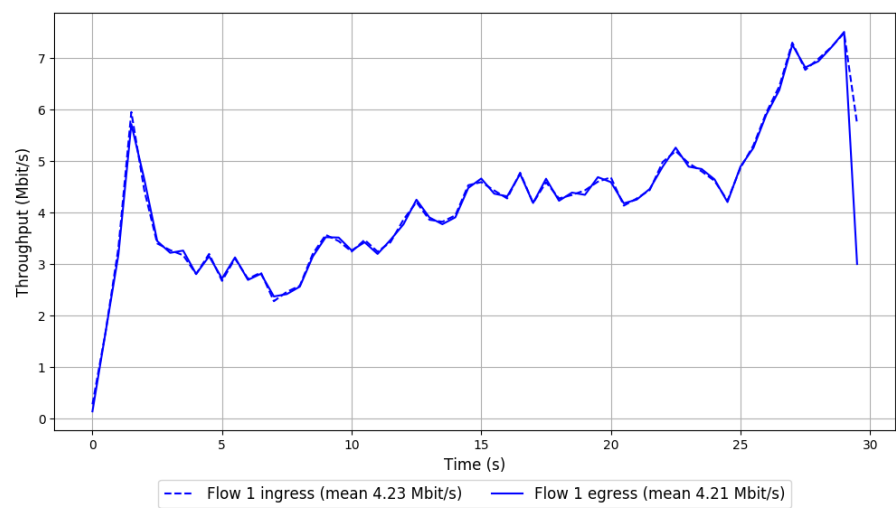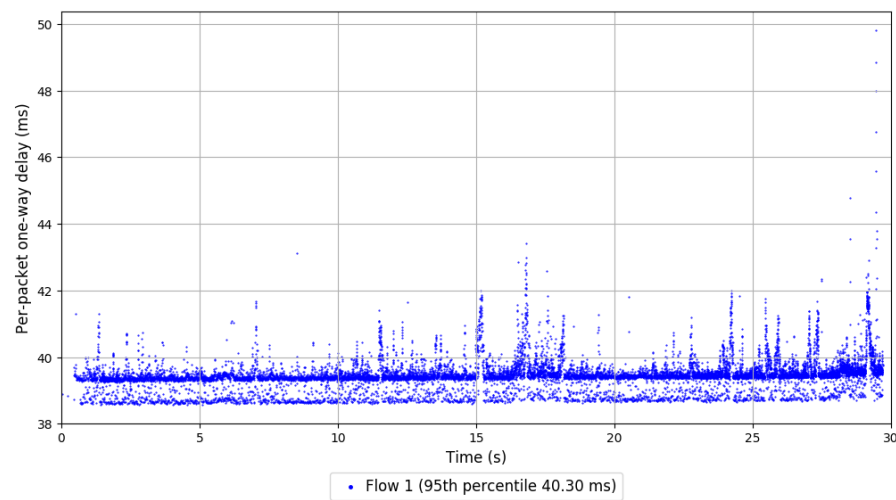
Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-04-24 08:19:59
End at: 2018-04-24 08:20:29
Local clock offset: -1.45 ms
Remote clock offset: 30.098 ms


# Below is generated by plot.py at 2018-04-24 12:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 43.047 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 43.047 ms
Loss rate: 0.98%
```
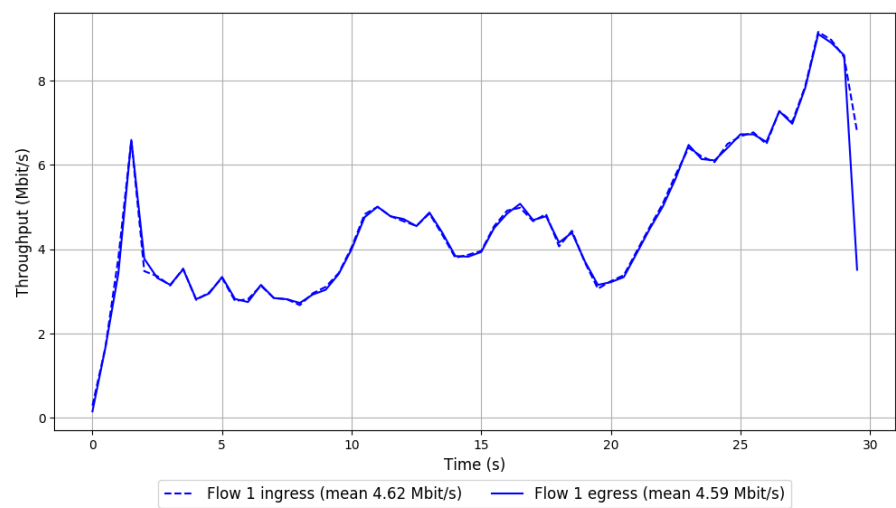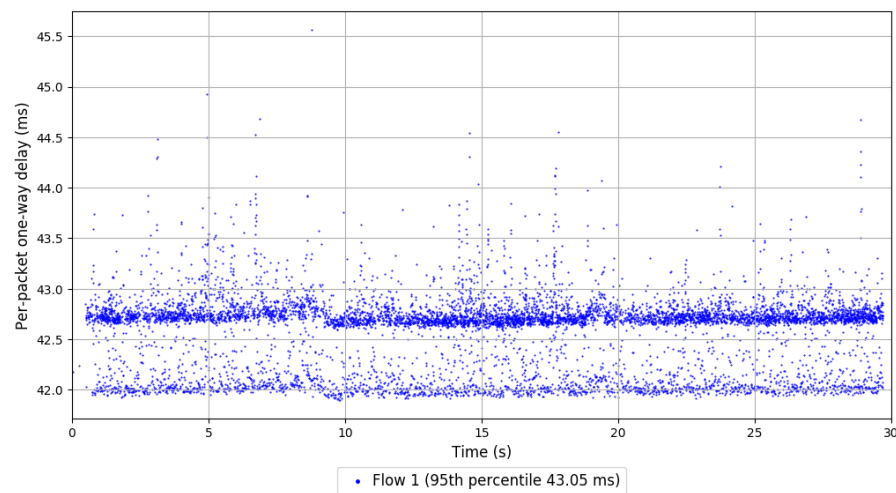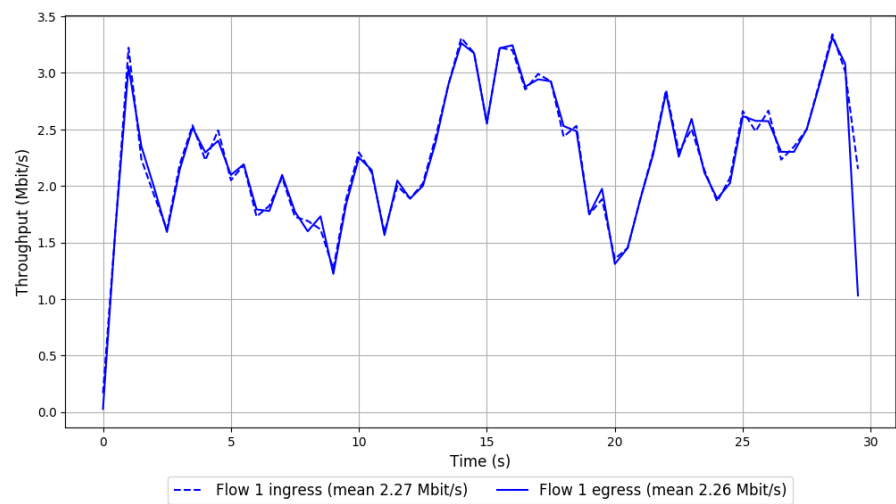
Run 9: Report of PCC-Vivace — Data Link

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-04-24 08:42:00
End at: 2018-04-24 08:42:30
Local clock offset: -3.584 ms
Remote clock offset: 11.952 ms


# Below is generated by plot.py at 2018-04-24 12:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 63.149 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 63.149 ms
Loss rate: 0.87%
```
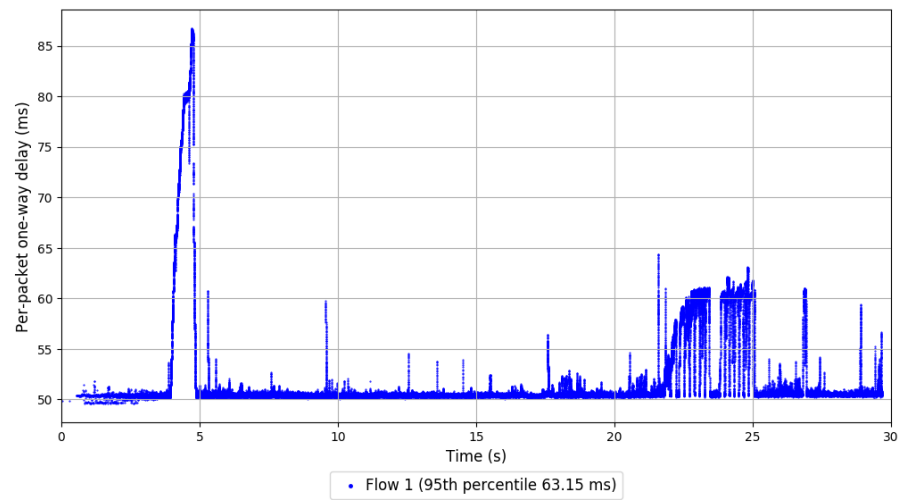
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 44.88 Mbit/s)   Flow 1 egress (mean 44.83 Mbit/s)

Flow 1 (95th percentile 63.15 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-04-24 05:22:13
End at: 2018-04-24 05:22:43
Local clock offset: -3.206 ms
Remote clock offset: -1.141 ms
```

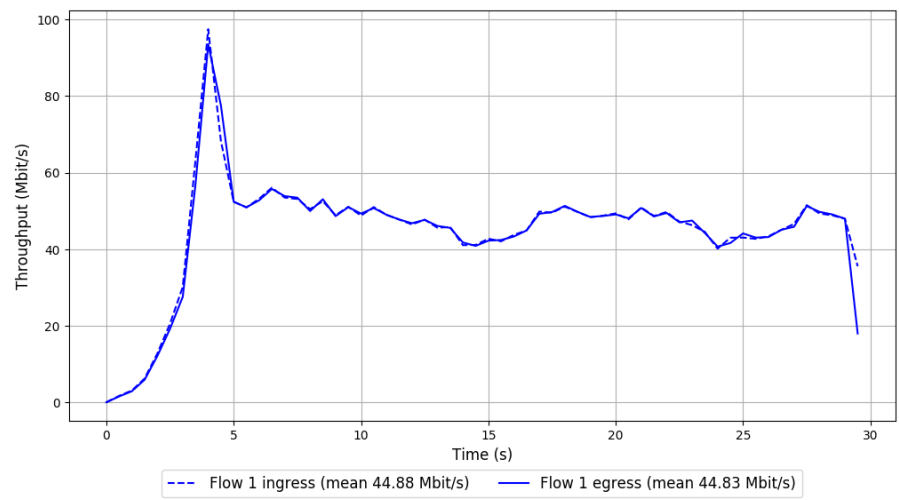Run 1: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of PCC-Expr

Start at: 2018-04-24 05:43:28
End at: 2018-04-24 05:43:58
Local clock offset: 0.116 ms
Remote clock offset: 1.57 ms
```

Run 2: Report of PCC-Expr — Data Link

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```
Run 3: Statistics of PCC-Expr

Start at: 2018-04-24 06:04:50
End at: 2018-04-24 06:05:20
Local clock offset: 1.981 ms
Remote clock offset: 30.541 ms
```

Run 3: Report of PCC-Expr — Data Link

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Figure is missing

```
Run 4: Statistics of PCC-Expr

Start at: 2018-04-24 06:26:03
End at: 2018-04-24 06:26:33
Local clock offset: 3.053 ms
Remote clock offset: -11.792 ms
```

Run 4: Report of PCC-Expr — Data Link

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```
Run 5: Statistics of PCC-Expr

Start at: 2018-04-24 06:47:21
End at: 2018-04-24 06:47:51
Local clock offset: 3.734 ms
Remote clock offset: 8.871 ms
```

Run 5: Report of PCC-Expr — Data Link

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Figure is missing

```
Run 6: Statistics of PCC-Expr

Start at: 2018-04-24 07:08:36
End at: 2018-04-24 07:09:06
Local clock offset: 3.078 ms
Remote clock offset: 43.865 ms
```

Run 6: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

```
Run 7: Statistics of PCC-Expr

Start at: 2018-04-24 07:36:02
End at: 2018-04-24 07:36:32
Local clock offset: -3.357 ms
Remote clock offset: 11.082 ms
```

Run 7: Report of PCC-Expr — Data Link

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Figure is missing

```
Run 8: Statistics of PCC-Expr

Start at: 2018-04-24 07:57:17
End at: 2018-04-24 07:57:47
Local clock offset: -4.679 ms
Remote clock offset: 28.091 ms
```

Run 8: Report of PCC-Expr — Data Link

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```
Run 9: Statistics of PCC-Expr

Start at: 2018-04-24 08:18:47
End at: 2018-04-24 08:19:17
Local clock offset: -1.464 ms
Remote clock offset: 23.04 ms
```

Run 9: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of PCC-Expr

Start at: 2018-04-24 08:40:47
End at: 2018-04-24 08:41:17
Local clock offset: -3.446 ms
Remote clock offset: 20.907 ms
```

Run 10: Report of PCC-Expr — Data Link

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Figure is missing