Pantheon Report

Generated at 2017-12-05 16:23:52 (UTC).

Data path: Colombia Ethernet (*remote*) →AWS Brazil 2 Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

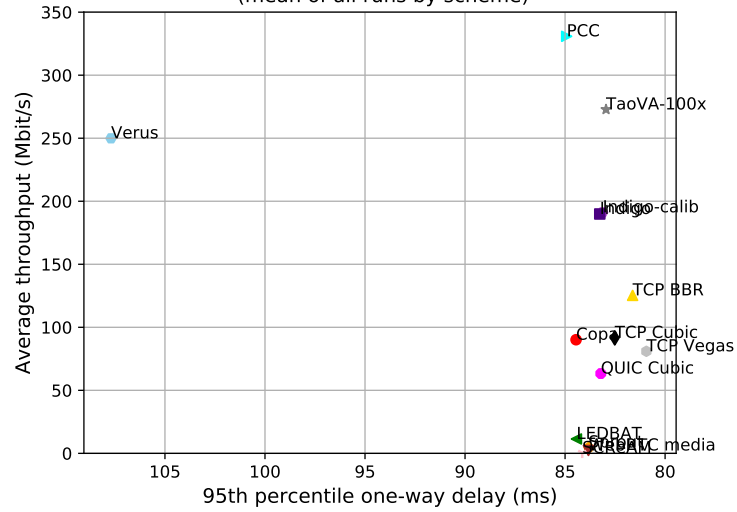Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

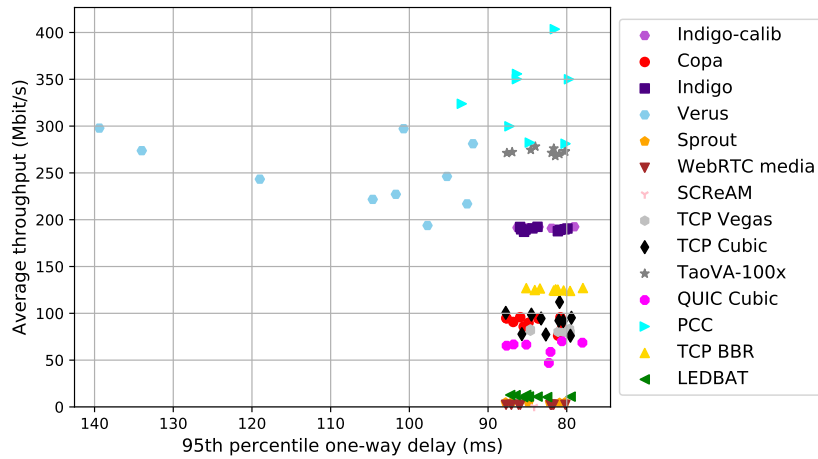NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from Colombia Ethernet to AWS Brazil 2 Ethernet, 10 runs of 30s each per scheme (mean of all runs by scheme)

test from Colombia Ethernet to AWS Brazil 2 Ethernet, 10 runs of 30s each per scheme

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scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	125.33	81.62	0.54
TCP Cubic	10	91.59	82.52	0.58
LEDBAT	9	11.42	84.43	1.27
PCC	8	330.84	84.92	6.91
QUIC Cubic	7	63.31	83.21	0.78
SCReAM	1	0.22	84.14	0.51
WebRTC media	9	2.28	83.83	0.62
Sprout	6	4.69	83.83	0.69
TaoVA-100x	10	272.81	82.95	0.60
TCP Vegas	10	80.96	80.94	0.62
Verus	10	249.91	107.70	2.32
Copa	10	90.14	84.45	0.58
Indigo	10	189.89	83.26	0.57
Indigo-calib	10	191.22	83.12	0.58

```
Run 1: Statistics of TCP BBR

Start at: 2017-12-05 10:03:06
End at: 2017-12-05 10:03:36
Local clock offset: 1.218 ms
Remote clock offset: 4.711 ms

# Below is generated by plot.py at 2017-12-05 15:51:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.39 Mbit/s
95th percentile per-packet one-way delay: 81.136 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 125.39 Mbit/s
95th percentile per-packet one-way delay: 81.136 ms
Loss rate: 0.58%
```
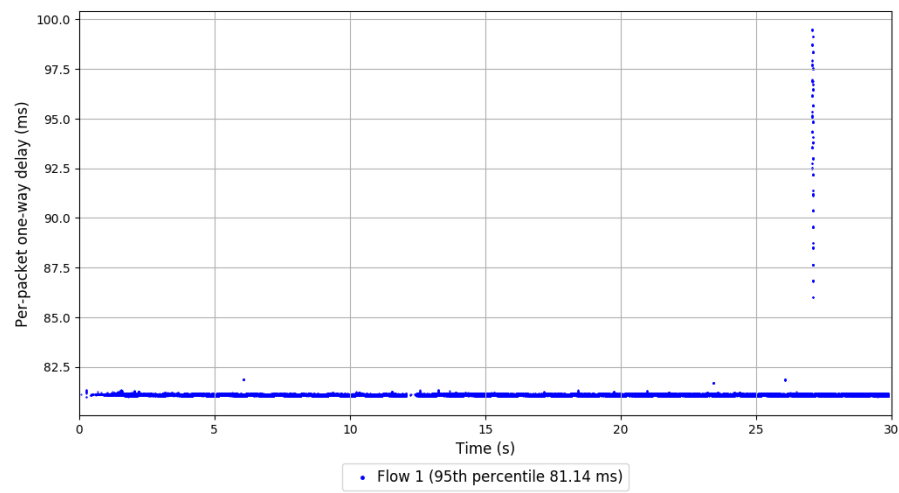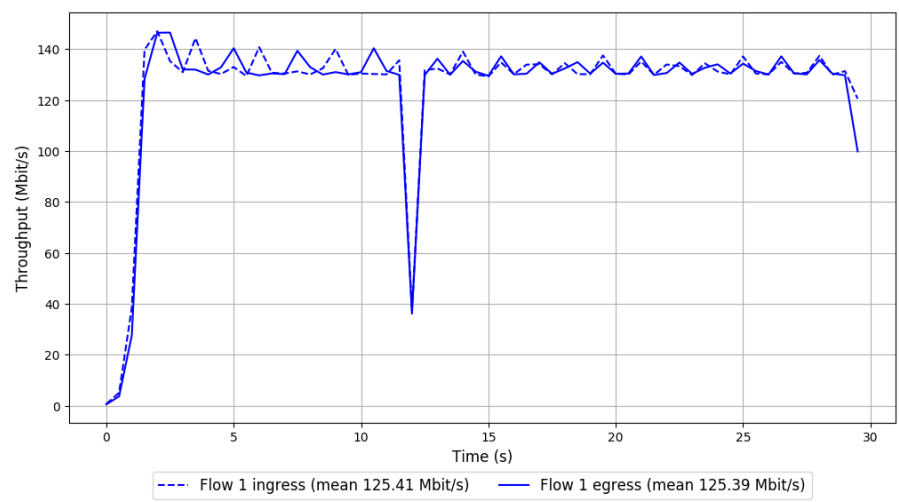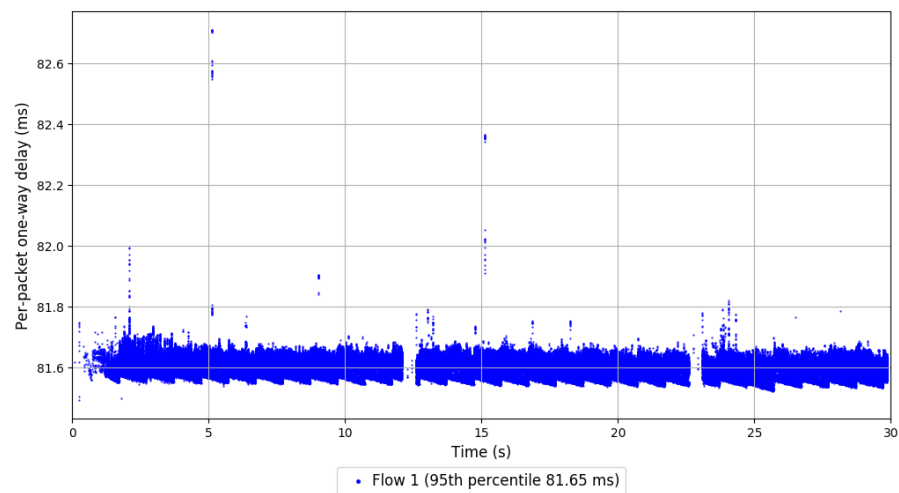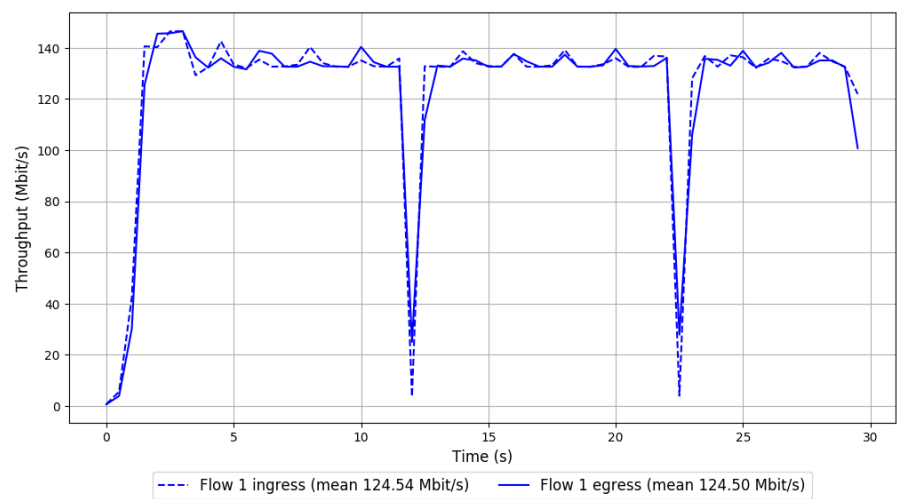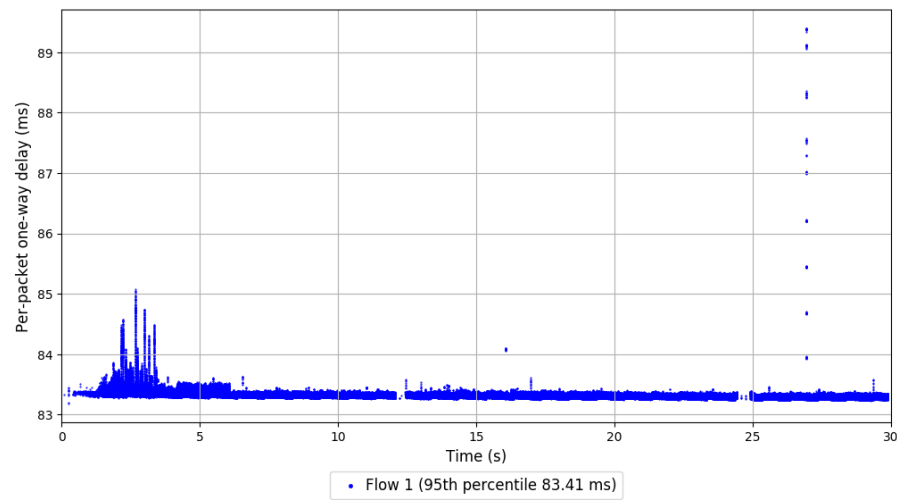
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 125.41 Mbit/s) --- Flow 1 egress (mean 125.39 Mbit/s)

• Flow 1 (95th percentile 81.14 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2017-12-05 10:21:20
End at: 2017-12-05 10:21:50
Local clock offset: 1.105 ms
Remote clock offset: 2.717 ms


# Below is generated by plot.py at 2017-12-05 15:51:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.50 Mbit/s
95th percentile per-packet one-way delay: 81.649 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 124.50 Mbit/s
95th percentile per-packet one-way delay: 81.649 ms
Loss rate: 0.59%
```
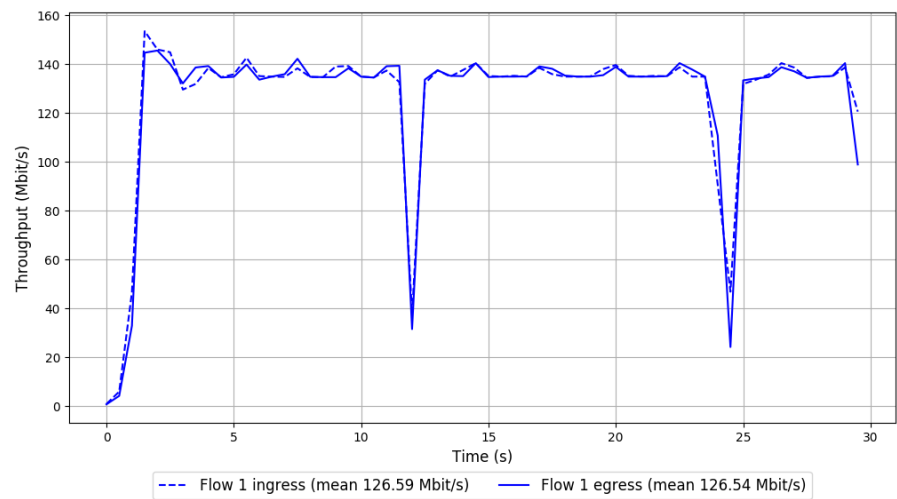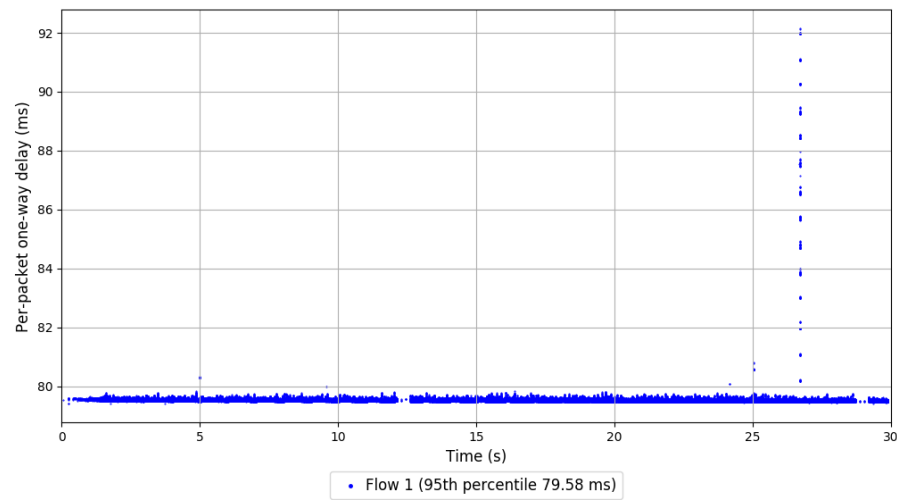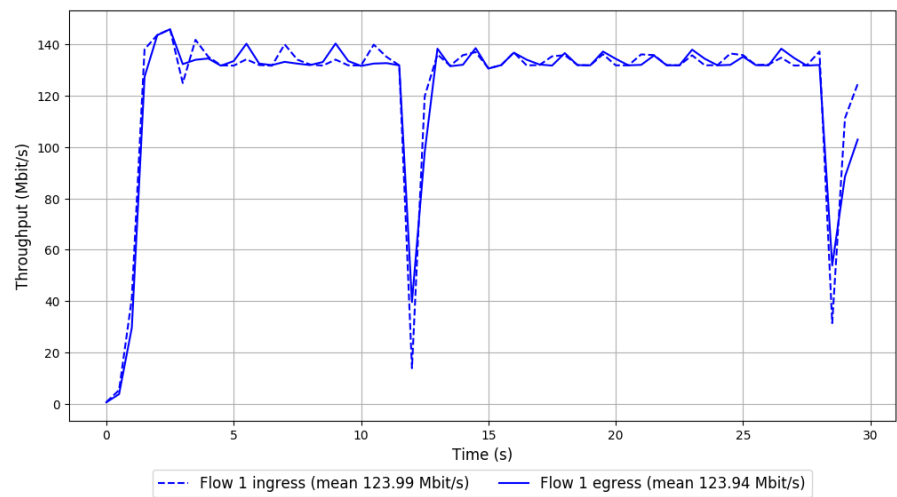
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.54 Mbit/s)   Flow 1 egress (mean 124.50 Mbit/s)

Flow 1 (95th percentile 81.65 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2017-12-05 10:39:16
End at: 2017-12-05 10:39:46
Local clock offset: 1.903 ms
Remote clock offset: -1.51 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.54 Mbit/s
95th percentile per-packet one-way delay: 83.407 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 126.54 Mbit/s
95th percentile per-packet one-way delay: 83.407 ms
Loss rate: 0.59%
```
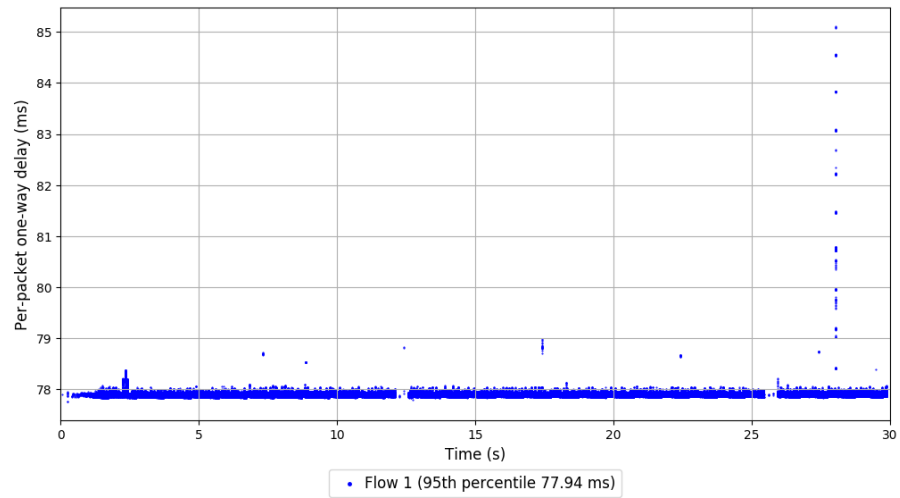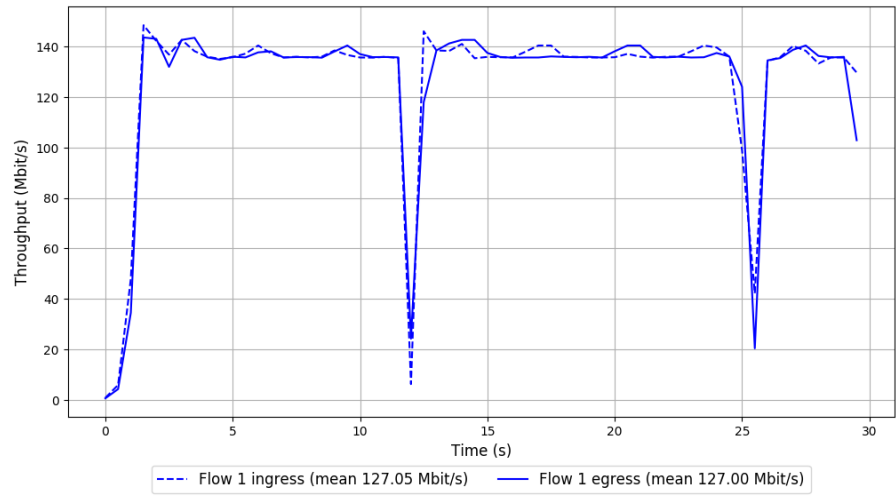
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2017-12-05 10:57:21
End at: 2017-12-05 10:57:51
Local clock offset: 3.029 ms
Remote clock offset: 3.204 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.94 Mbit/s
95th percentile per-packet one-way delay: 79.577 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 123.94 Mbit/s
95th percentile per-packet one-way delay: 79.577 ms
Loss rate: 0.60%
```
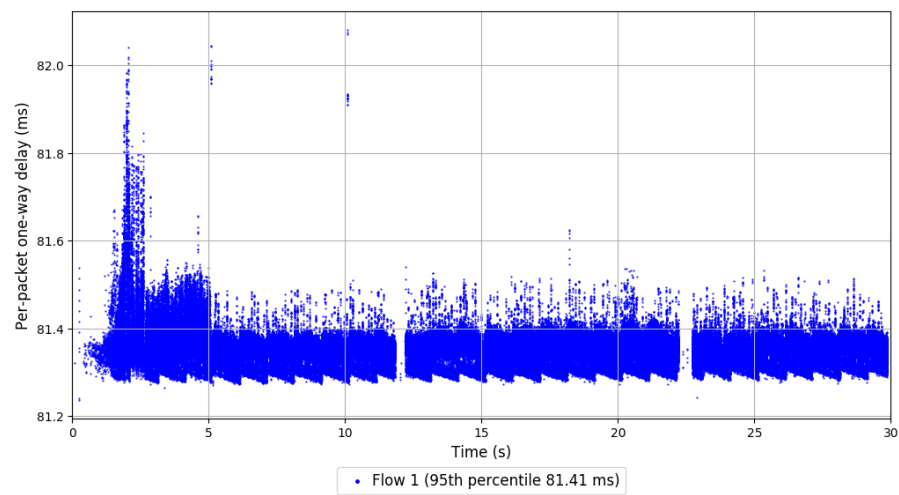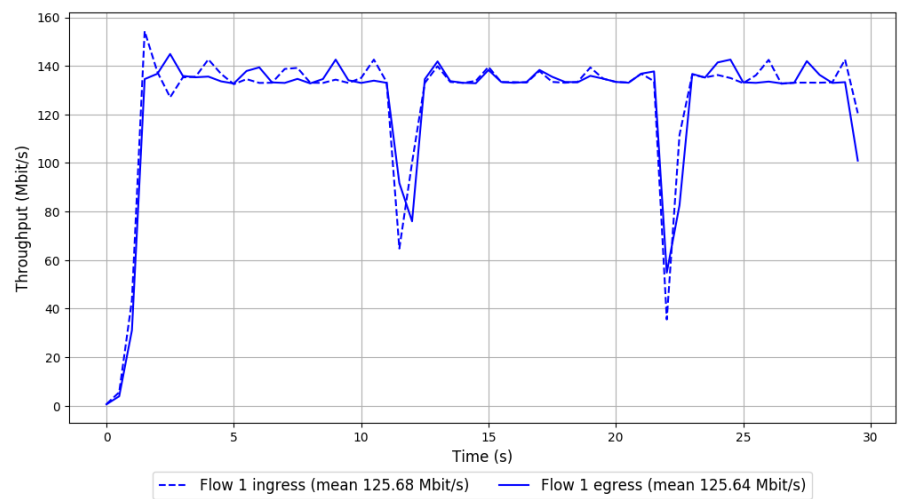
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 123.99 Mbit/s) ——— Flow 1 egress (mean 123.94 Mbit/s)

Flow 1 (95th percentile 79.58 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2017-12-05 11:15:05
End at: 2017-12-05 11:15:35
Local clock offset: 2.8 ms
Remote clock offset: 2.68 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.00 Mbit/s
95th percentile per-packet one-way delay: 77.945 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 127.00 Mbit/s
95th percentile per-packet one-way delay: 77.945 ms
Loss rate: 0.59%
```
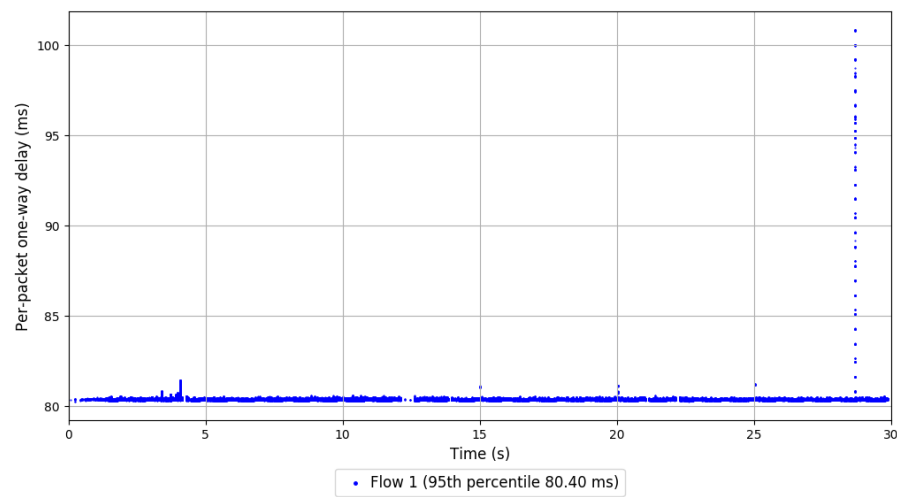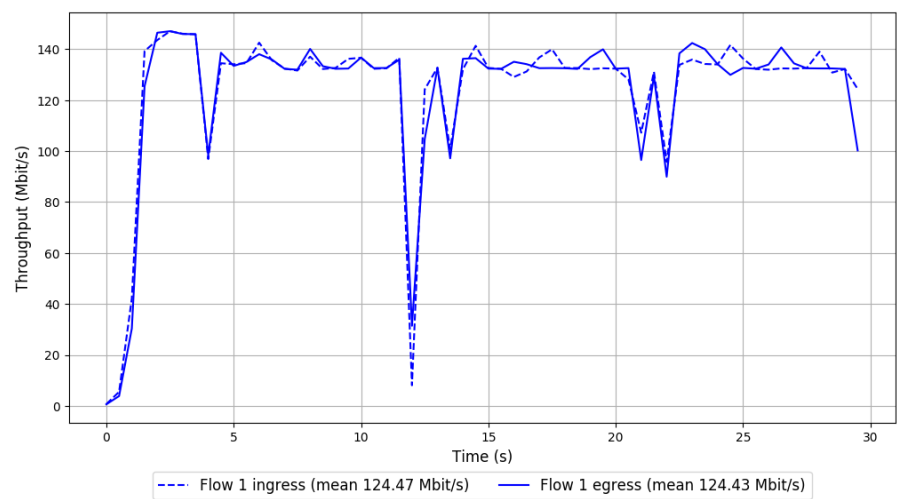
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 127.05 Mbit/s) — Flow 1 egress (mean 127.00 Mbit/s)

Flow 1 (95th percentile 77.94 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2017-12-05 11:33:25
End at: 2017-12-05 11:33:55
Local clock offset: 1.816 ms
Remote clock offset: 0.93 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.64 Mbit/s
95th percentile per-packet one-way delay: 81.414 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 125.64 Mbit/s
95th percentile per-packet one-way delay: 81.414 ms
Loss rate: 0.59%
```
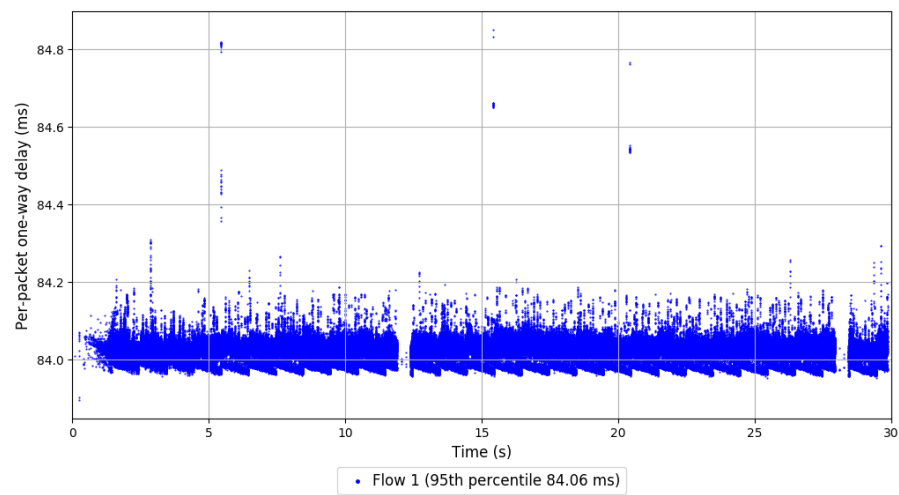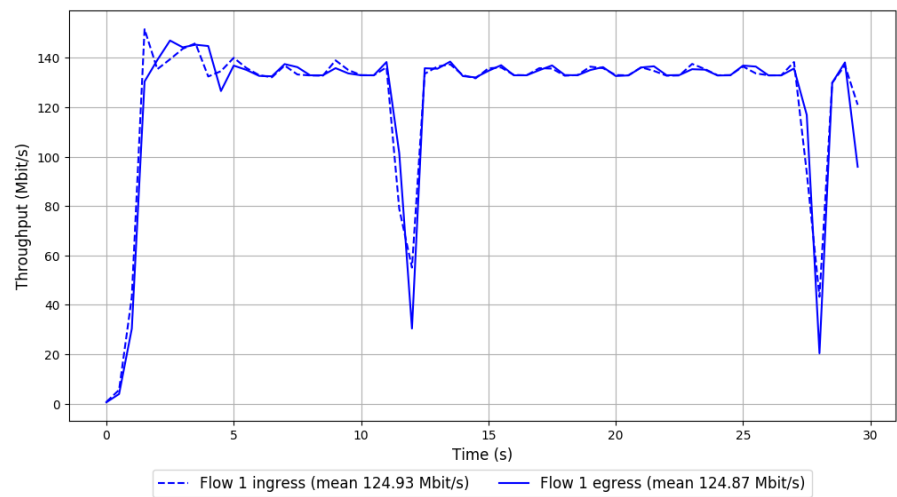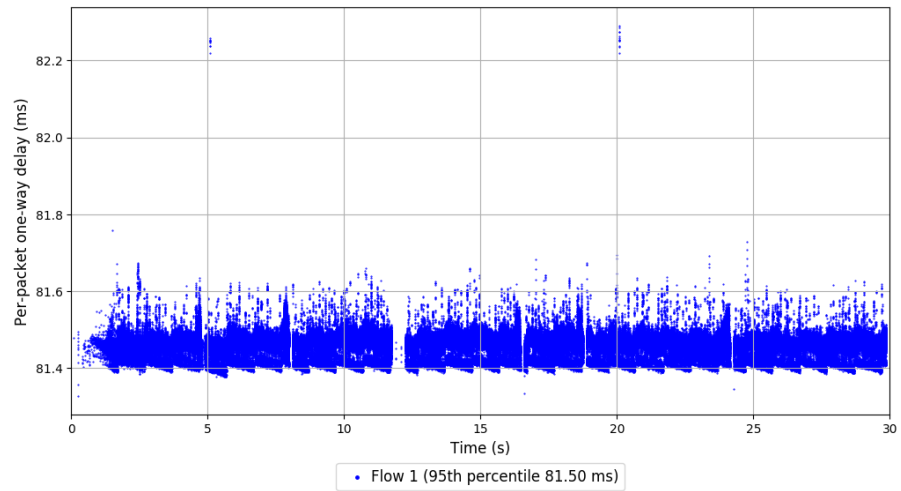
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 125.68 Mbit/s)   Flow 1 egress (mean 125.64 Mbit/s)

Flow 1 (95th percentile 81.41 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2017-12-05 11:51:22
End at: 2017-12-05 11:51:52
Local clock offset: 1.236 ms
Remote clock offset: 1.419 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.43 Mbit/s
95th percentile per-packet one-way delay: 80.402 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 124.43 Mbit/s
95th percentile per-packet one-way delay: 80.402 ms
Loss rate: 0.59%
```
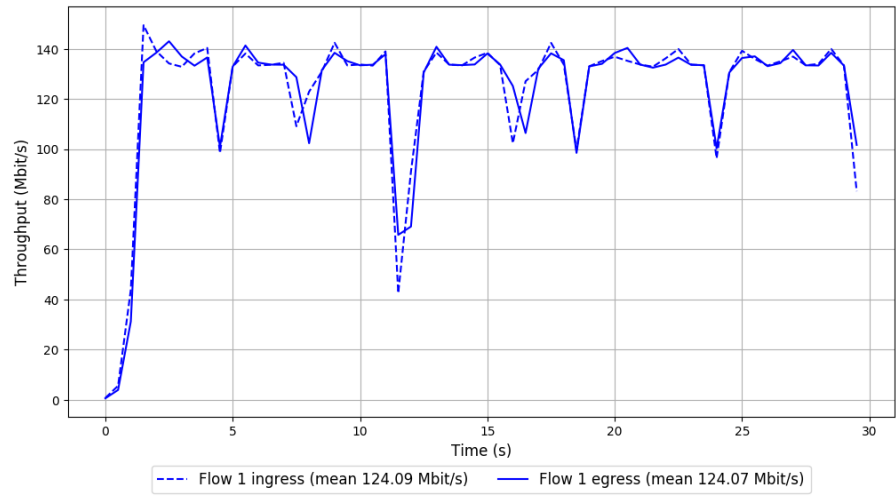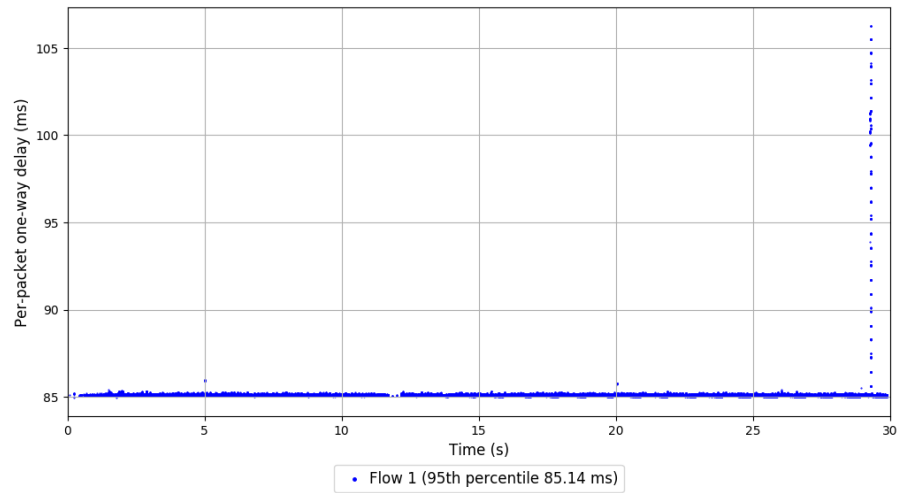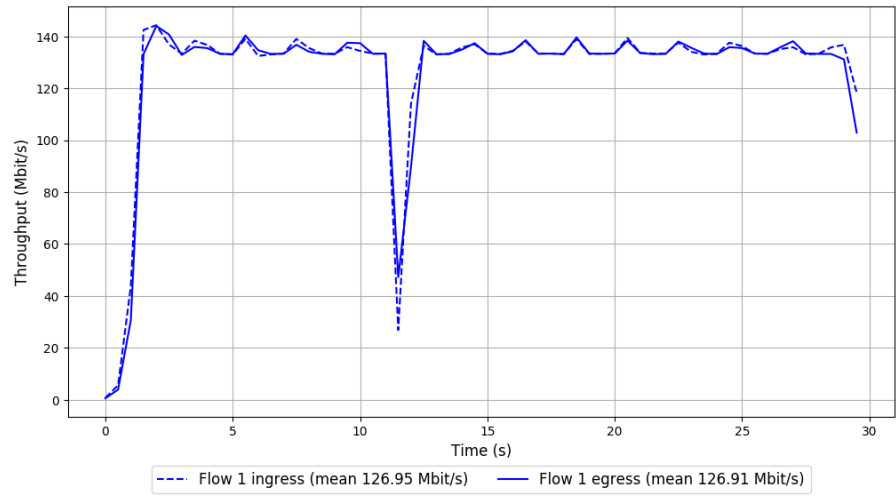
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.47 Mbit/s)   Flow 1 egress (mean 124.43 Mbit/s)

Flow 1 (95th percentile 80.40 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2017-12-05 12:09:26
End at: 2017-12-05 12:09:56
Local clock offset: 0.847 ms
Remote clock offset: -4.551 ms


# Below is generated by plot.py at 2017-12-05 15:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.87 Mbit/s
95th percentile per-packet one-way delay: 84.061 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 124.87 Mbit/s
95th percentile per-packet one-way delay: 84.061 ms
Loss rate: 0.63%
```

Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.93 Mbit/s) — Flow 1 egress (mean 124.87 Mbit/s)

Flow 1 (95th percentile 84.06 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2017-12-05 12:27:10
End at: 2017-12-05 12:27:40
Local clock offset: 0.441 ms
Remote clock offset: -1.475 ms


# Below is generated by plot.py at 2017-12-05 15:53:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.07 Mbit/s
95th percentile per-packet one-way delay: 81.500 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 124.07 Mbit/s
95th percentile per-packet one-way delay: 81.500 ms
Loss rate: 0.06%
```
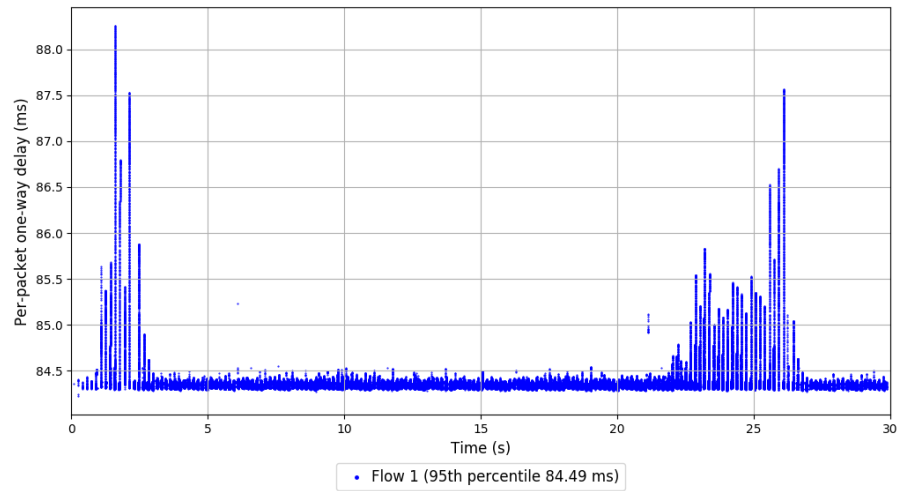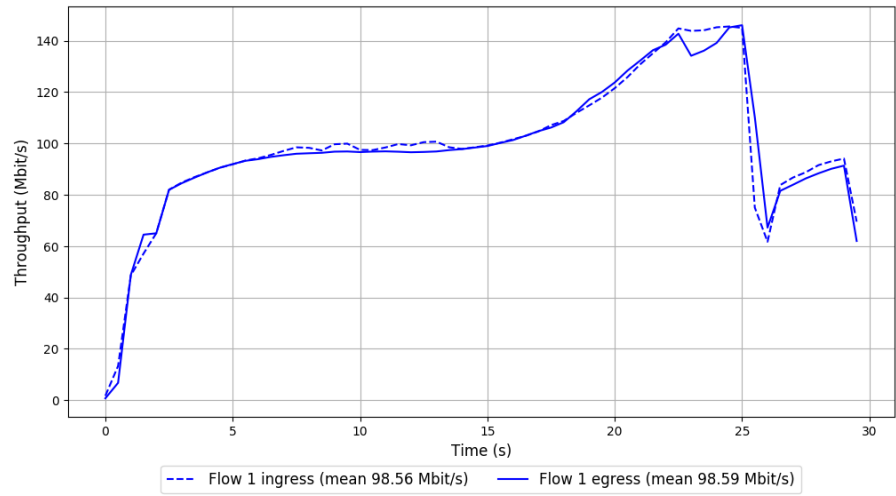
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.09 Mbit/s)   Flow 1 egress (mean 124.07 Mbit/s)

Flow 1 (95th percentile 81.50 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2017-12-05 12:45:25
End at: 2017-12-05 12:45:55
Local clock offset: 0.06 ms
Remote clock offset: -5.522 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.91 Mbit/s
95th percentile per-packet one-way delay: 85.142 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 126.91 Mbit/s
95th percentile per-packet one-way delay: 85.142 ms
Loss rate: 0.58%
```
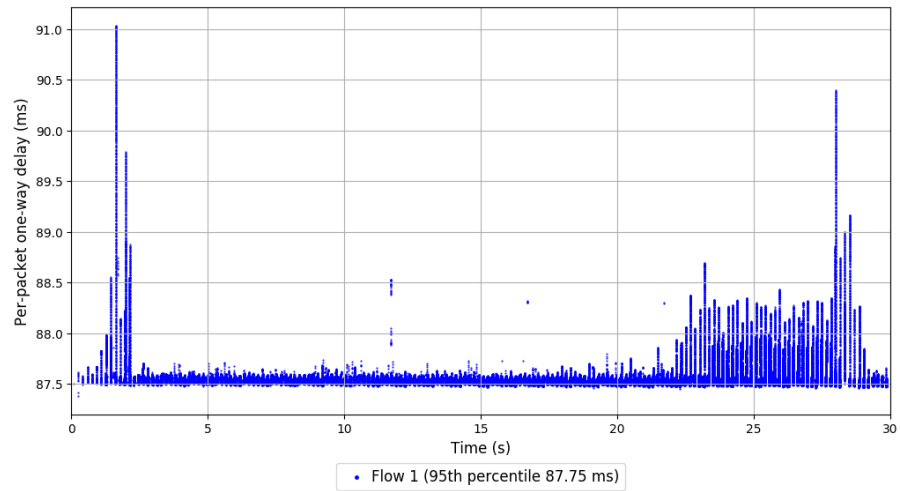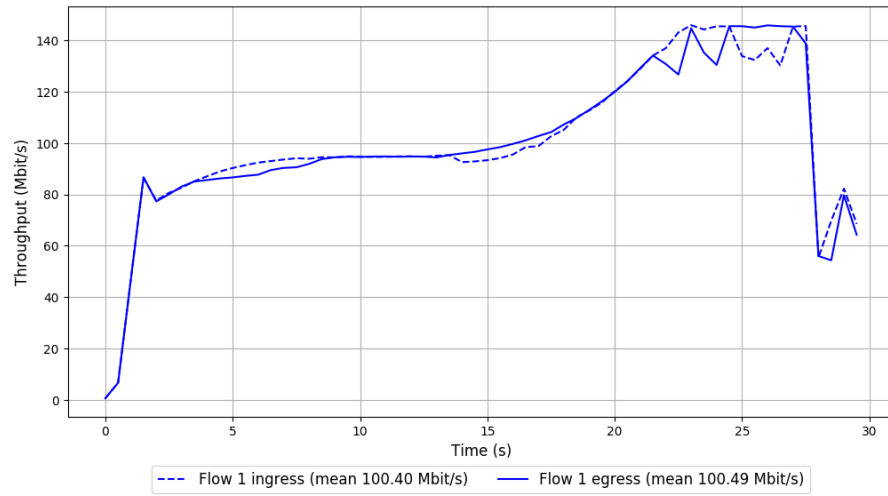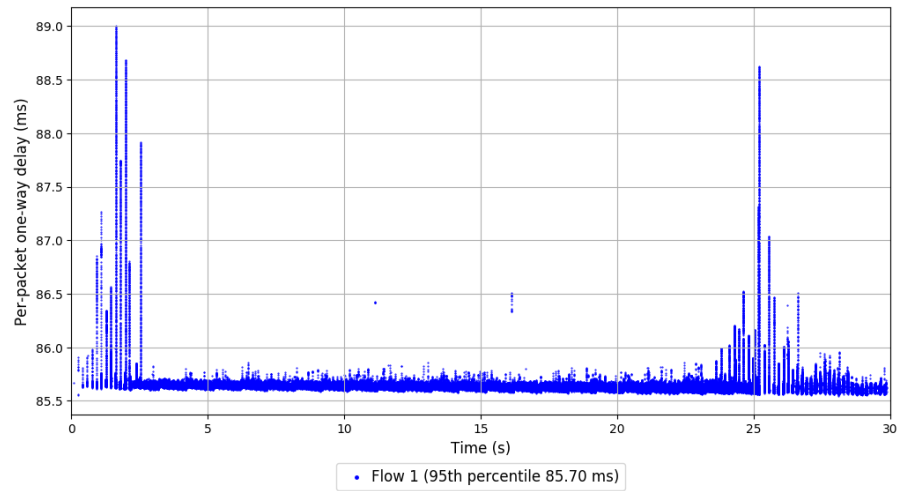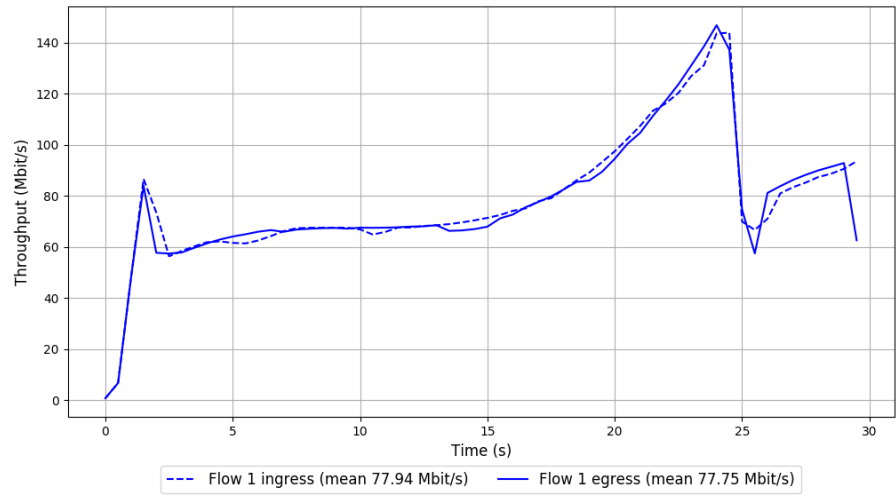
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-12-05 09:58:03
End at: 2017-12-05 09:58:33
Local clock offset: 1.198 ms
Remote clock offset: -1.27 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 98.59 Mbit/s
95th percentile per-packet one-way delay: 84.491 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 98.59 Mbit/s
95th percentile per-packet one-way delay: 84.491 ms
Loss rate: 0.52%
```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2017-12-05 10:16:10
End at: 2017-12-05 10:16:40
Local clock offset: 1.151 ms
Remote clock offset: -1.85 ms

# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 100.49 Mbit/s
95th percentile per-packet one-way delay: 87.749 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 100.49 Mbit/s
95th percentile per-packet one-way delay: 87.749 ms
Loss rate: 0.47%
```
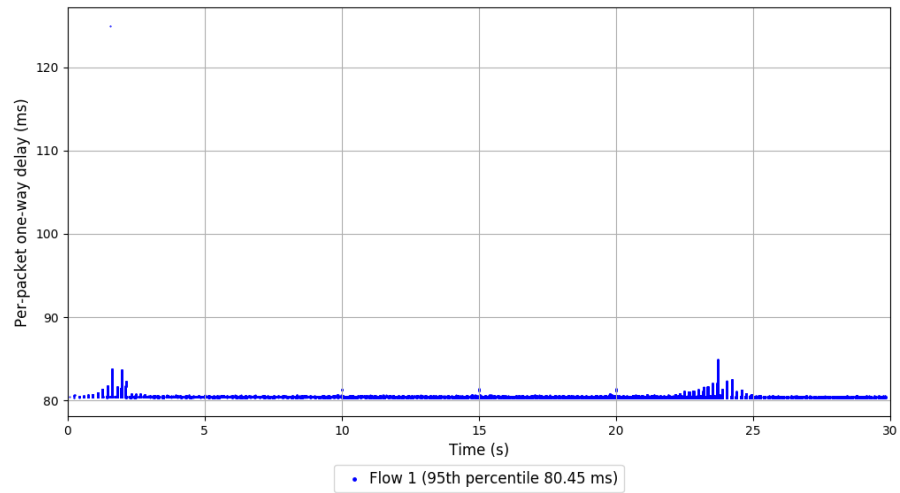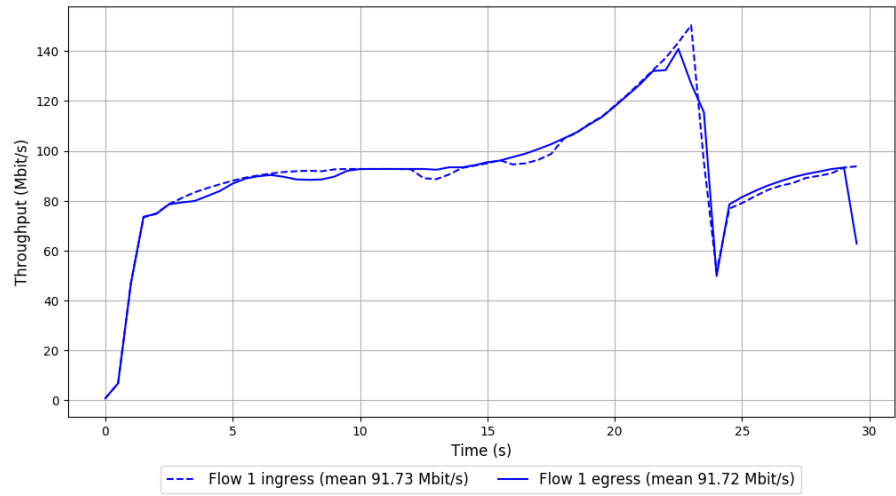
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 100.40 Mbit/s)   Flow 1 egress (mean 100.49 Mbit/s)

Flow 1 (95th percentile 87.75 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2017-12-05 10:34:11
End at: 2017-12-05 10:34:41
Local clock offset: 1.515 ms
Remote clock offset: -1.754 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.75 Mbit/s
95th percentile per-packet one-way delay: 85.704 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 77.75 Mbit/s
95th percentile per-packet one-way delay: 85.704 ms
Loss rate: 0.67%
```
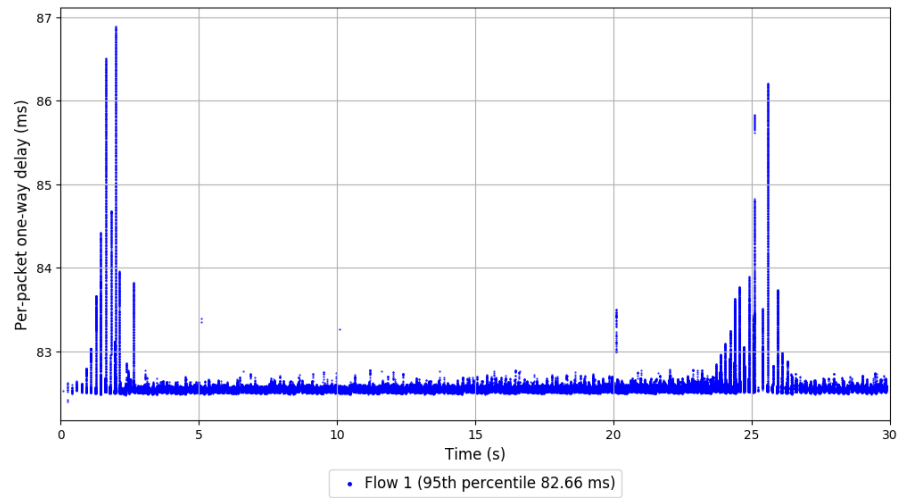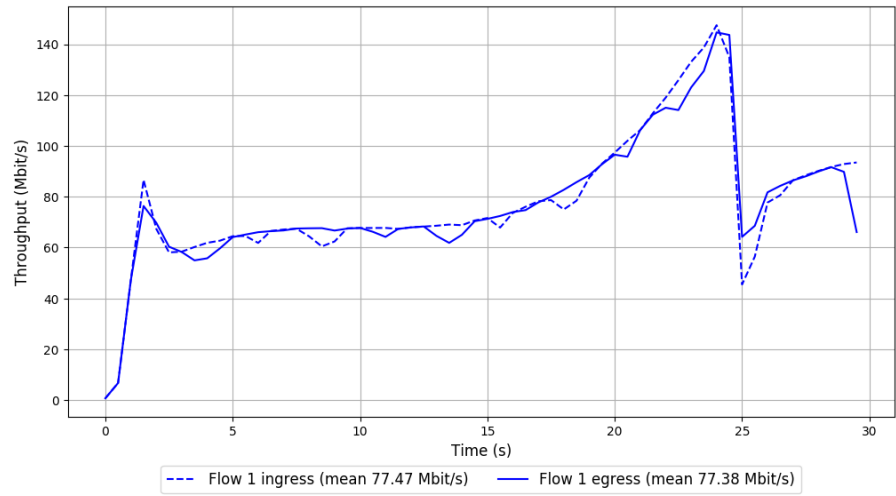
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2017-12-05 10:52:13
End at: 2017-12-05 10:52:43
Local clock offset: 2.757 ms
Remote clock offset: 2.531 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 80.449 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 80.449 ms
Loss rate: 0.57%
```
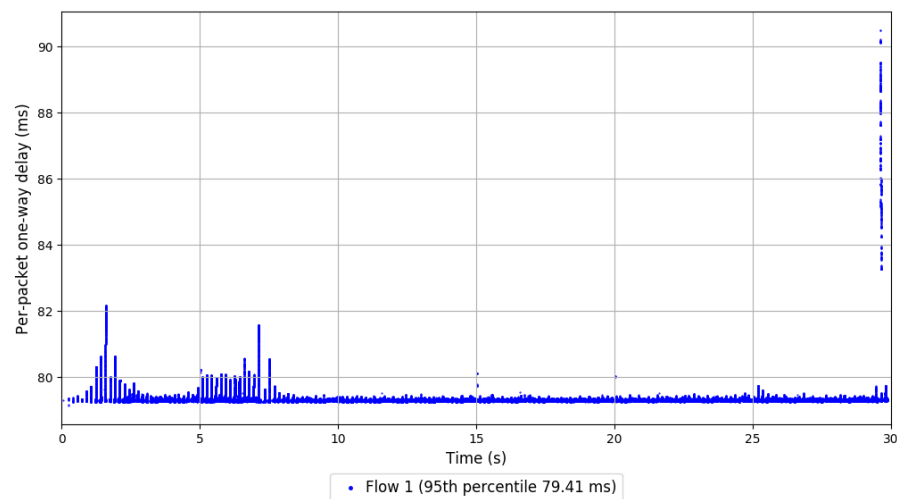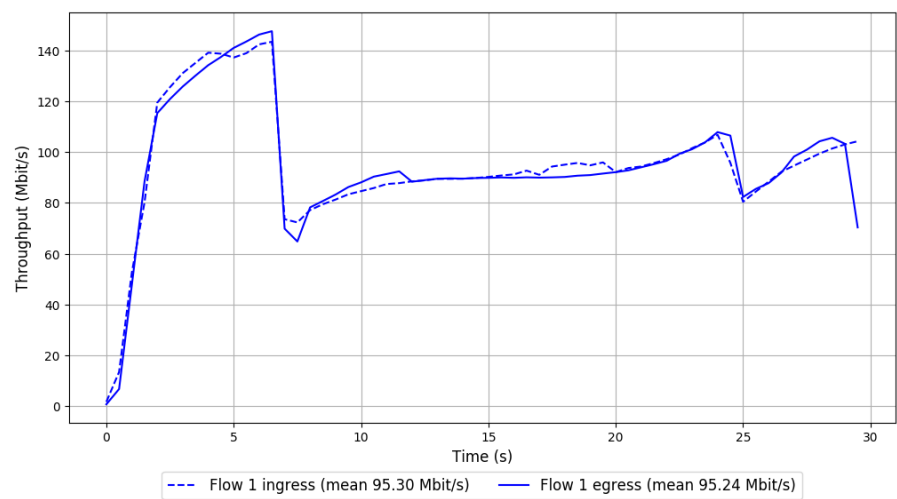
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2017-12-05 11:10:00
End at: 2017-12-05 11:10:30
Local clock offset: 3.048 ms
Remote clock offset: 1.087 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.38 Mbit/s
95th percentile per-packet one-way delay: 82.656 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 77.38 Mbit/s
95th percentile per-packet one-way delay: 82.656 ms
Loss rate: 0.68%
```
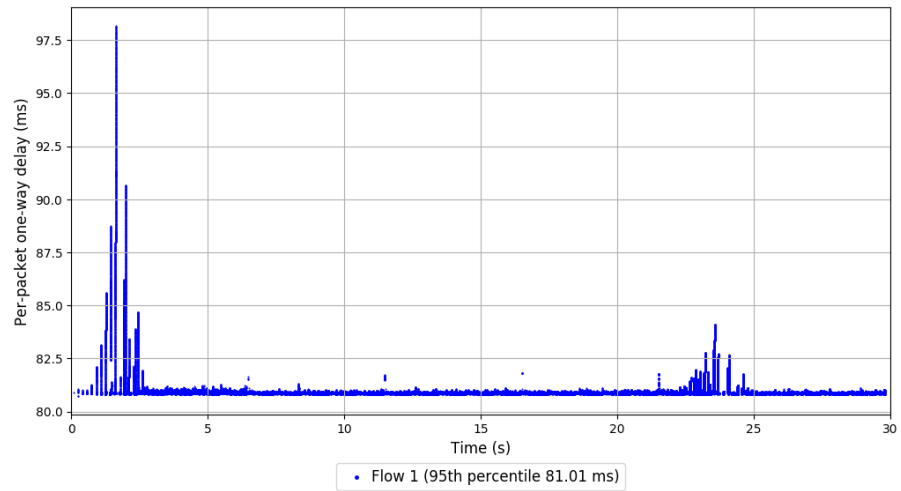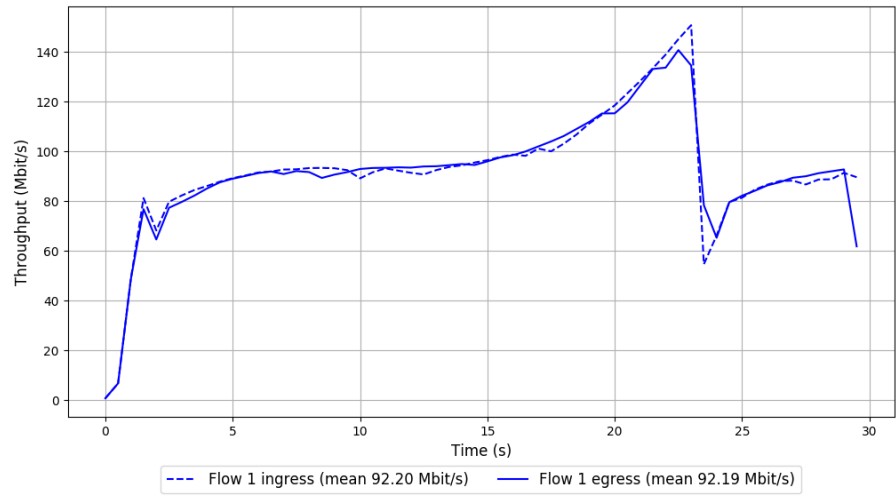
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 77.47 Mbit/s) — — —   Flow 1 egress (mean 77.38 Mbit/s) ——

Flow 1 (95th percentile 82.66 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2017-12-05 11:28:17
End at: 2017-12-05 11:28:48
Local clock offset: 1.997 ms
Remote clock offset: 1.09 ms


# Below is generated by plot.py at 2017-12-05 15:53:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 79.406 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 79.406 ms
Loss rate: 0.61%
```
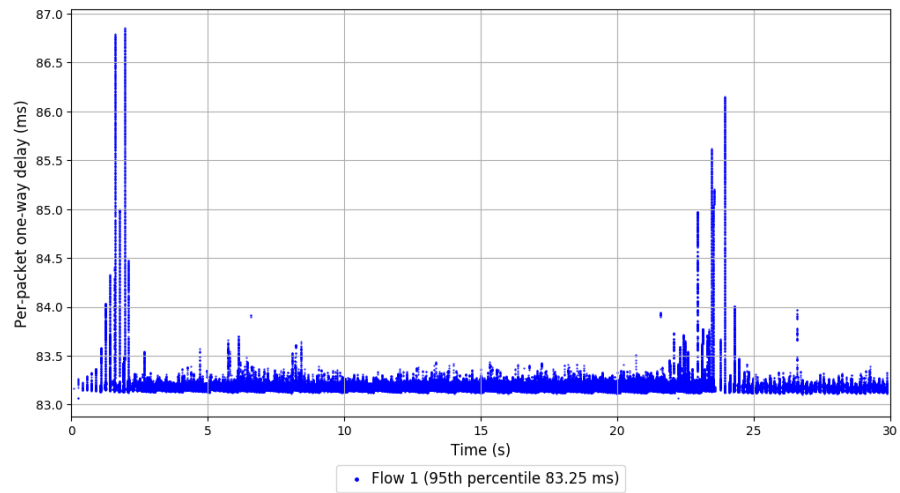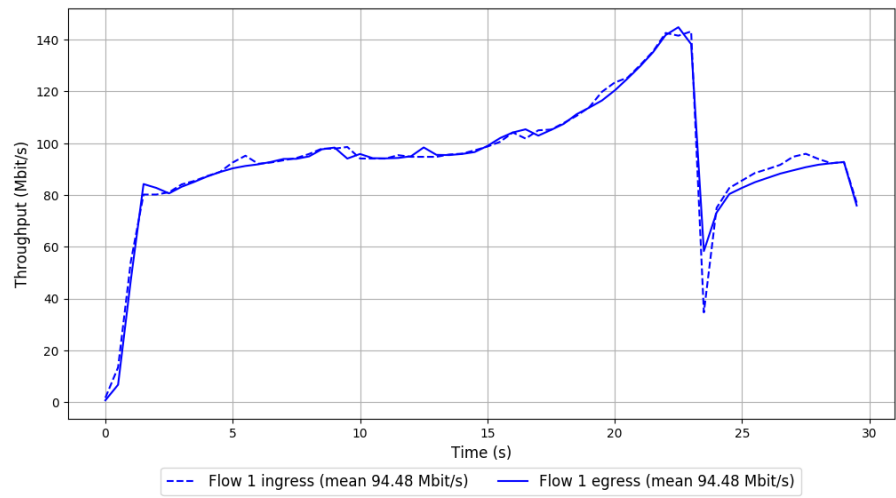
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 95.30 Mbit/s)   Flow 1 egress (mean 95.24 Mbit/s)

Flow 1 (95th percentile 79.41 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2017-12-05 11:46:17
End at: 2017-12-05 11:46:47
Local clock offset: 1.316 ms
Remote clock offset: 0.564 ms


# Below is generated by plot.py at 2017-12-05 15:54:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 81.006 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 81.006 ms
Loss rate: 0.56%
```
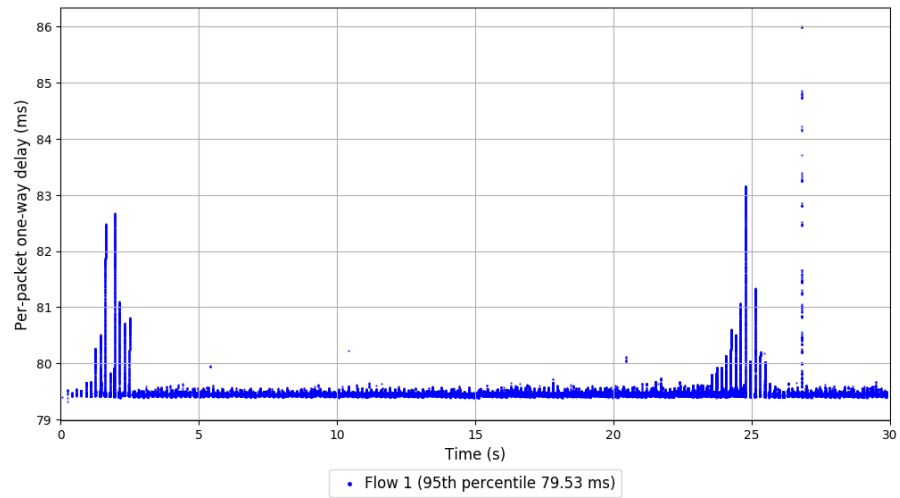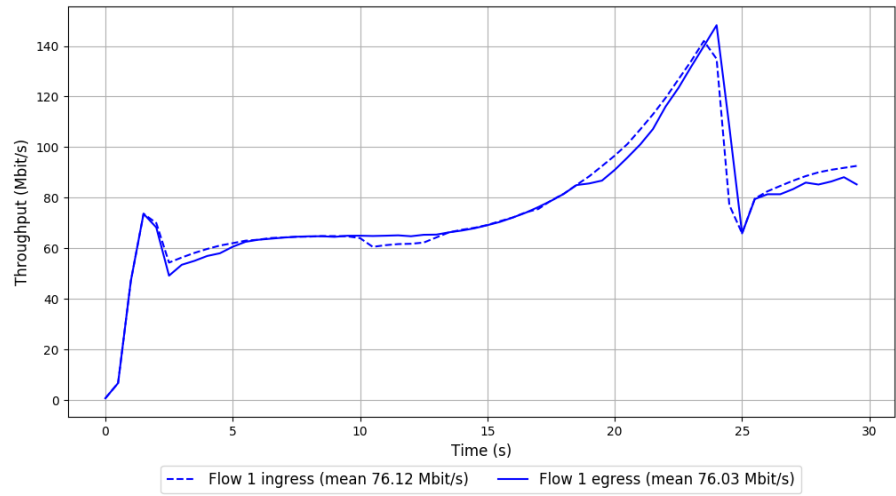
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2017-12-05 12:04:17
End at: 2017-12-05 12:04:47
Local clock offset: 0.968 ms
Remote clock offset: -3.97 ms


# Below is generated by plot.py at 2017-12-05 15:54:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 83.255 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 83.255 ms
Loss rate: 0.55%
```
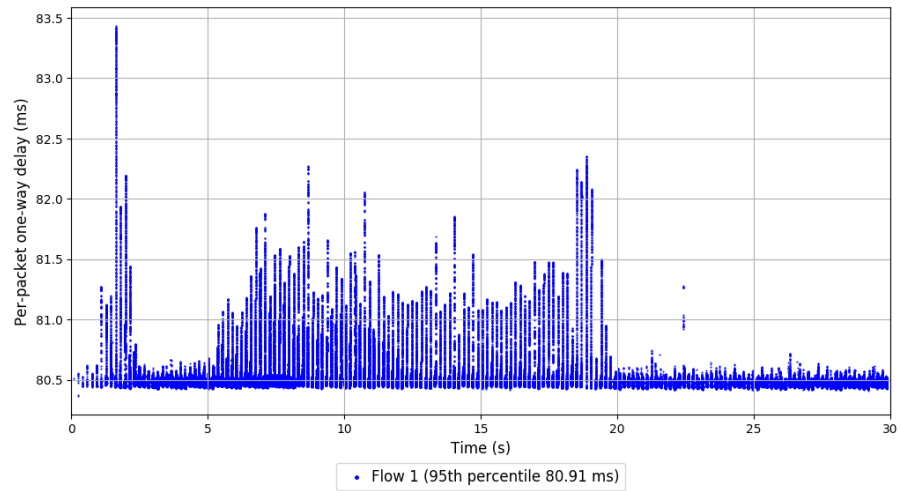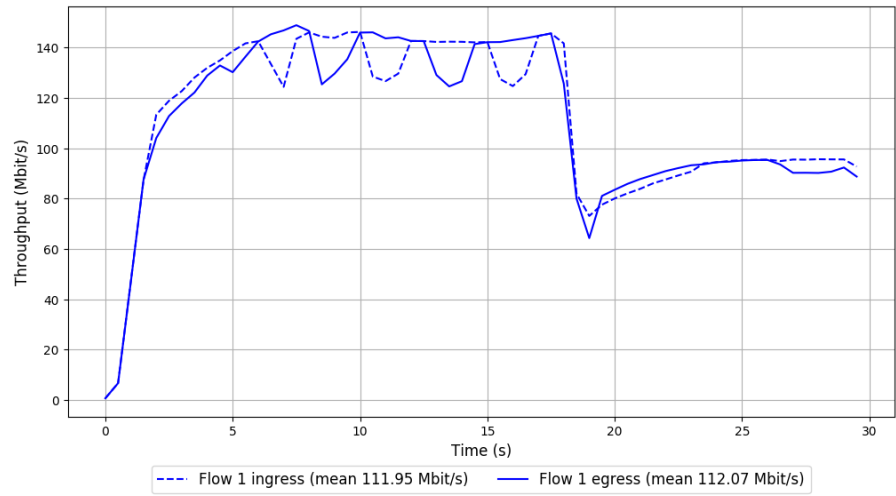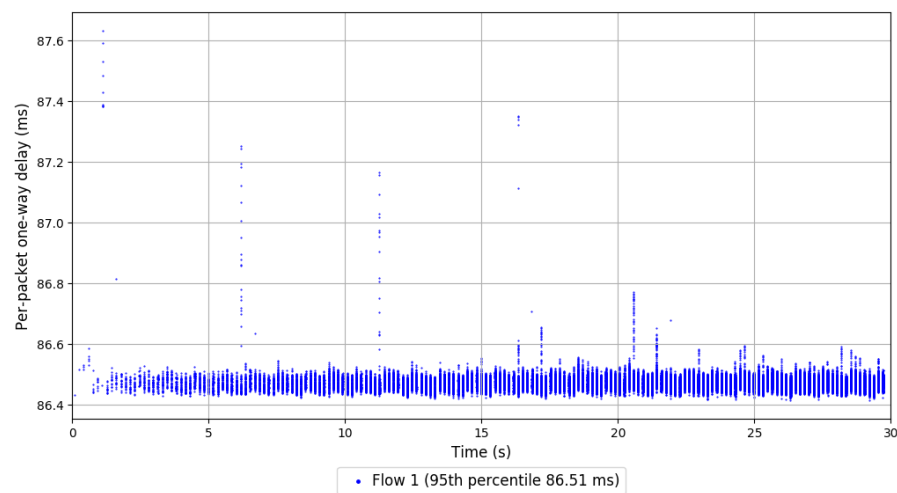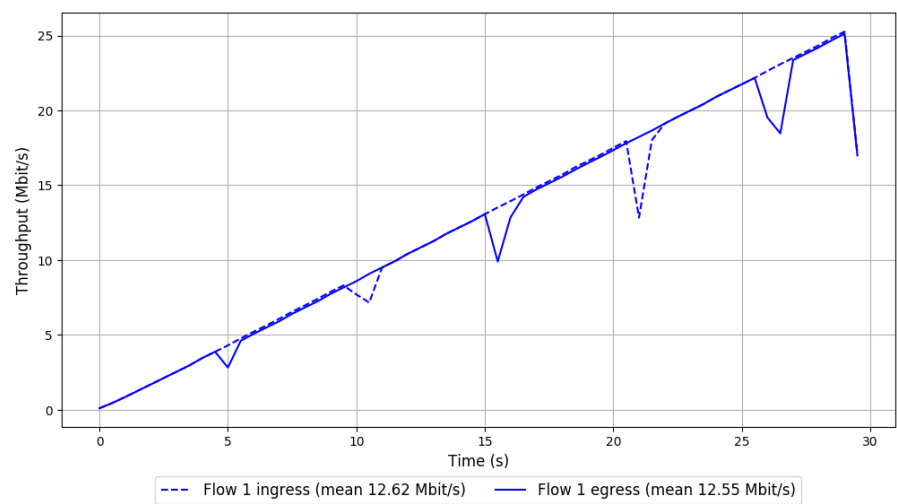
Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2017-12-05 12:22:04
End at: 2017-12-05 12:22:34
Local clock offset: 0.563 ms
Remote clock offset: 0.685 ms


# Below is generated by plot.py at 2017-12-05 15:54:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.03 Mbit/s
95th percentile per-packet one-way delay: 79.532 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 76.03 Mbit/s
95th percentile per-packet one-way delay: 79.532 ms
Loss rate: 0.68%
```

Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 76.12 Mbit/s)   Flow 1 egress (mean 76.03 Mbit/s)

Flow 1 (95th percentile 79.53 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2017-12-05 12:40:16
End at: 2017-12-05 12:40:46
Local clock offset: 0.16 ms
Remote clock offset: -0.353 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 112.07 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 112.07 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.45%
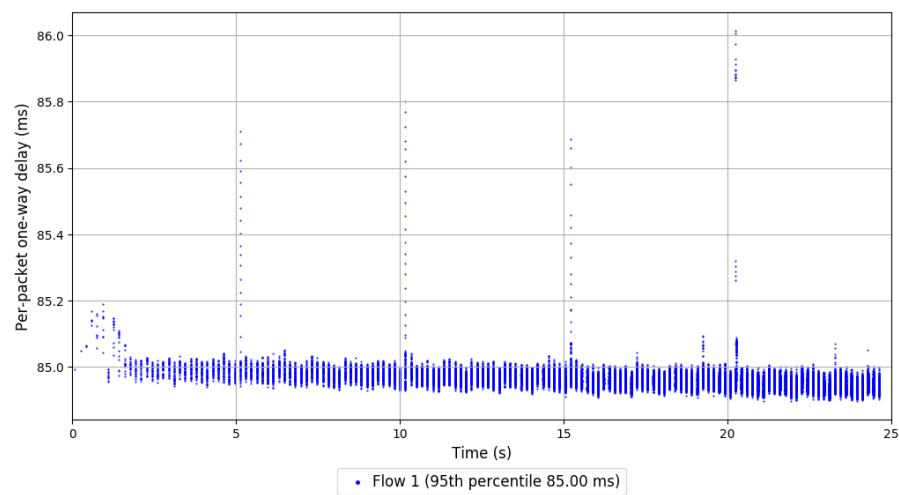```
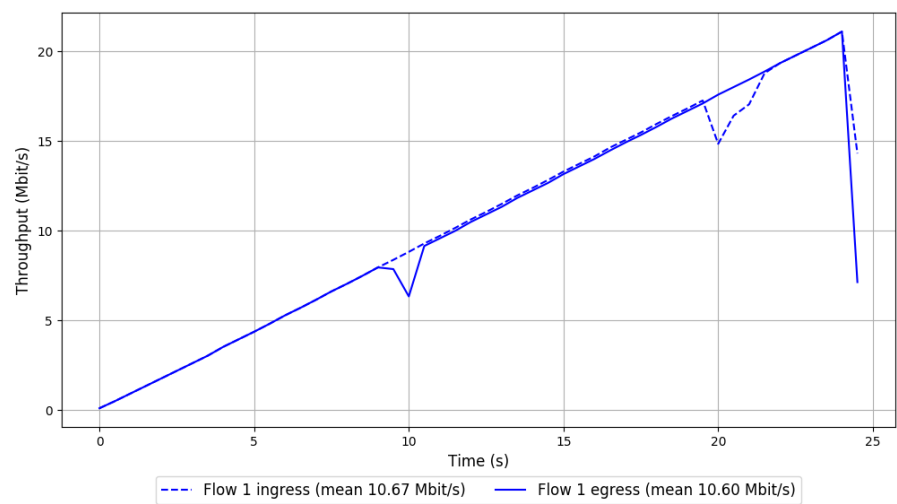
Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2017-12-05 09:55:42
End at: 2017-12-05 09:56:12
Local clock offset: 1.173 ms
Remote clock offset: -1.745 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 86.506 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 86.506 ms
Loss rate: 1.14%
```

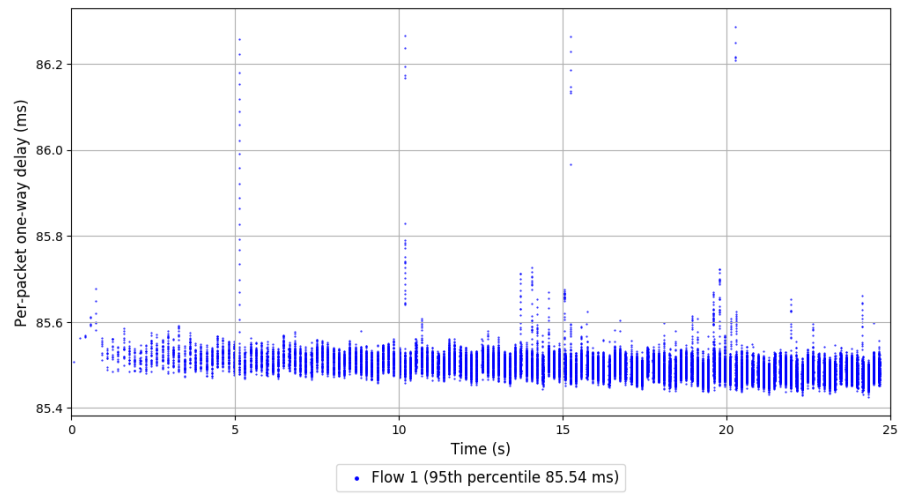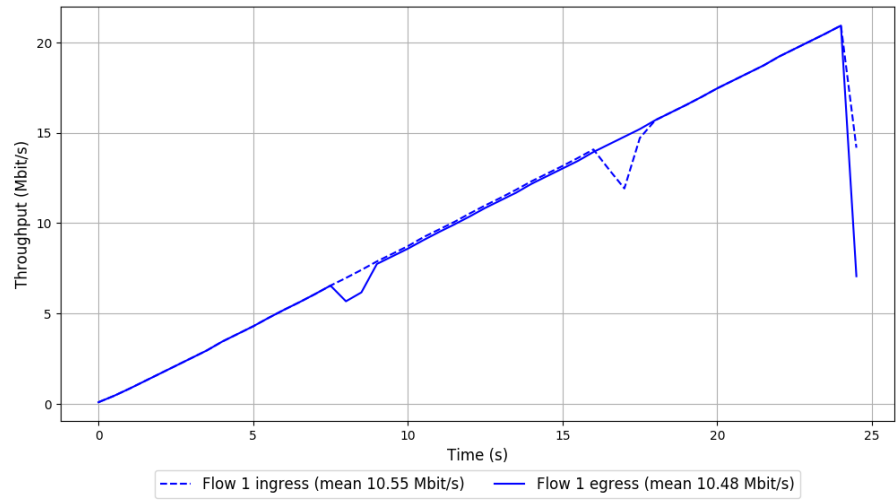Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2017-12-05 10:13:50
End at: 2017-12-05 10:14:20
Local clock offset: 1.112 ms
Remote clock offset: -1.816 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 84.807 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 84.807 ms
Loss rate: 1.30%
```

Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2017-12-05 10:31:50
End at: 2017-12-05 10:32:20
Local clock offset: 1.3 ms
Remote clock offset: -1.618 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.60 Mbit/s
95th percentile per-packet one-way delay: 85.004 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 10.60 Mbit/s
95th percentile per-packet one-way delay: 85.004 ms
Loss rate: 1.36%
```
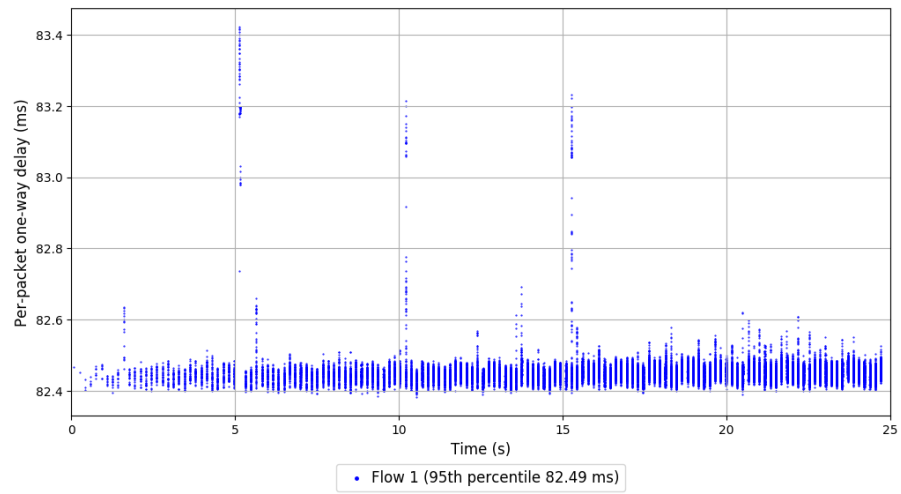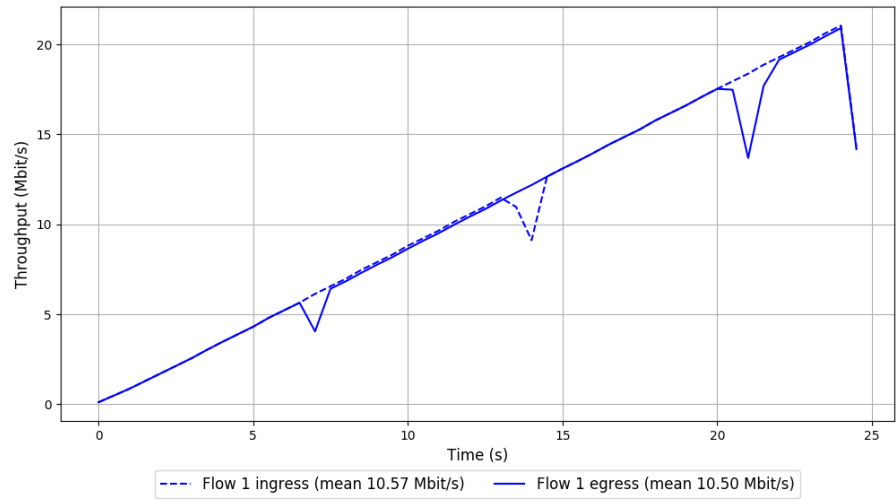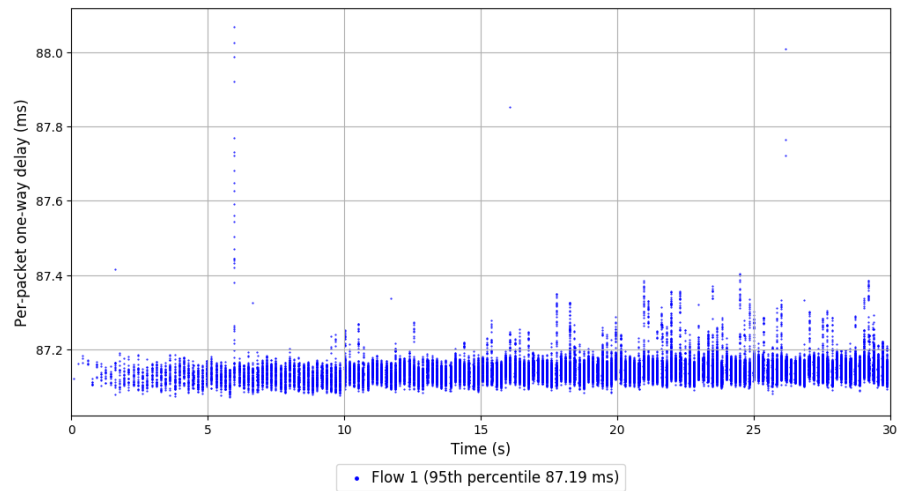
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 10.67 Mbit/s) —— Flow 1 egress (mean 10.60 Mbit/s)

• Flow 1 (95th percentile 85.00 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2017-12-05 10:49:53
End at: 2017-12-05 10:50:23
Local clock offset: 2.628 ms
Remote clock offset: -2.673 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.48 Mbit/s
95th percentile per-packet one-way delay: 85.536 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 10.48 Mbit/s
95th percentile per-packet one-way delay: 85.536 ms
Loss rate: 1.36%
```
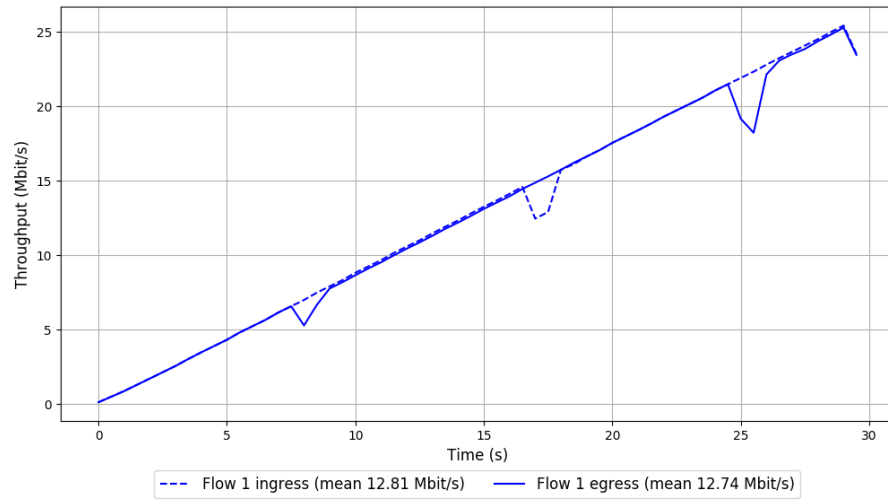
Run 4: Report of LEDBAT — Data Link
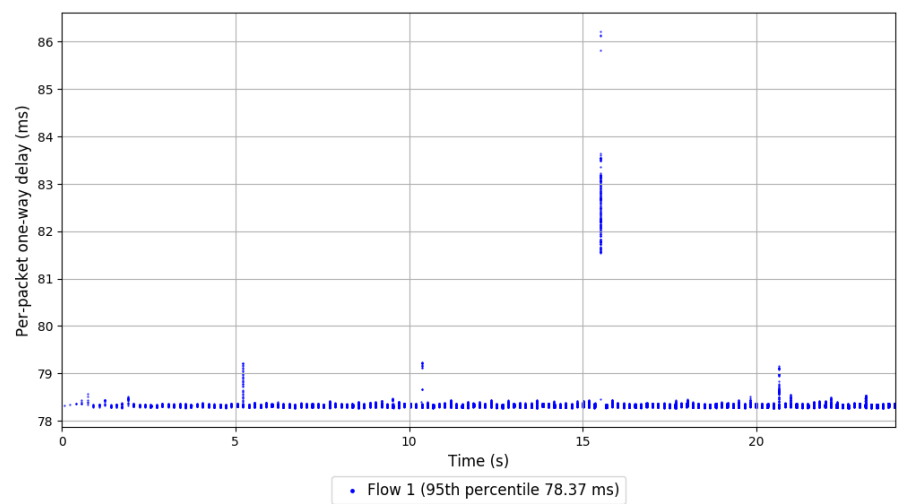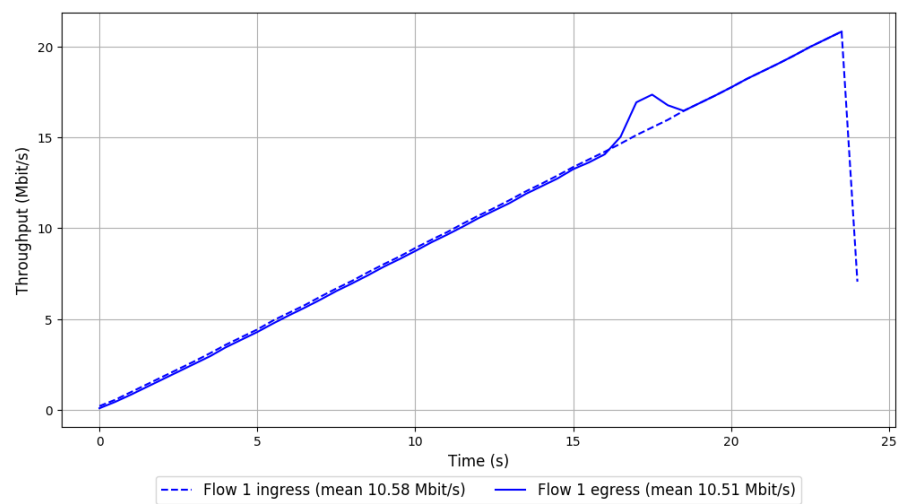
```
Run 5: Statistics of LEDBAT

Start at: 2017-12-05 11:07:40
End at: 2017-12-05 11:08:10
Local clock offset: 3.275 ms
Remote clock offset: 1.589 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 82.486 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 82.486 ms
Loss rate: 1.36%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 10.57 Mbit/s) ----- Flow 1 egress (mean 10.50 Mbit/s)

Flow 1 (95th percentile 82.49 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2017-12-05 11:25:57
End at: 2017-12-05 11:26:27
Local clock offset: 2.174 ms
Remote clock offset: -3.632 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 1.12%
```
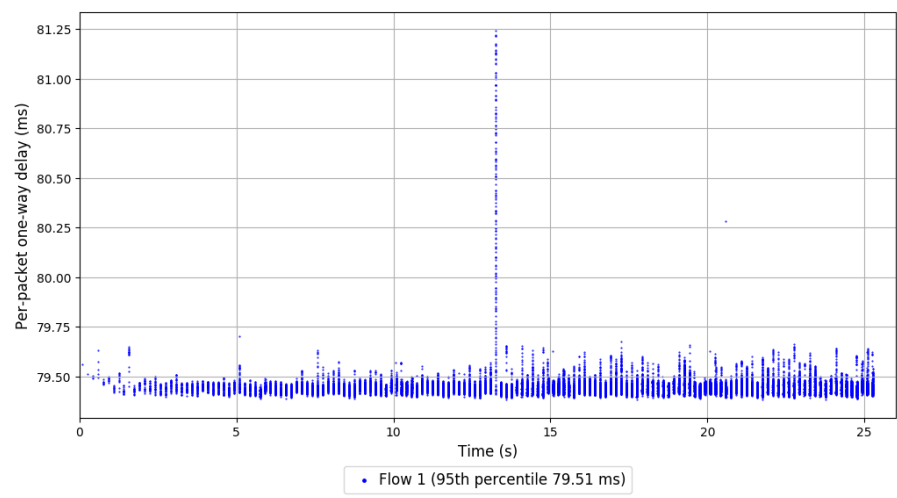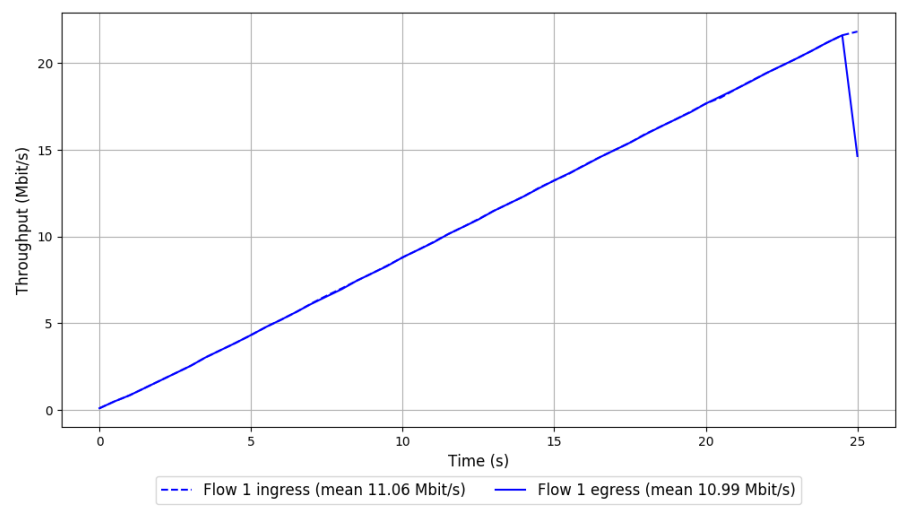
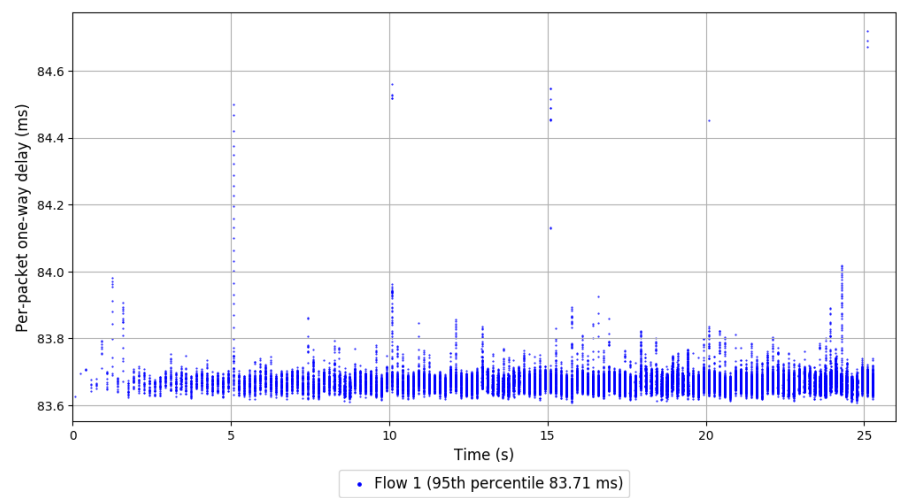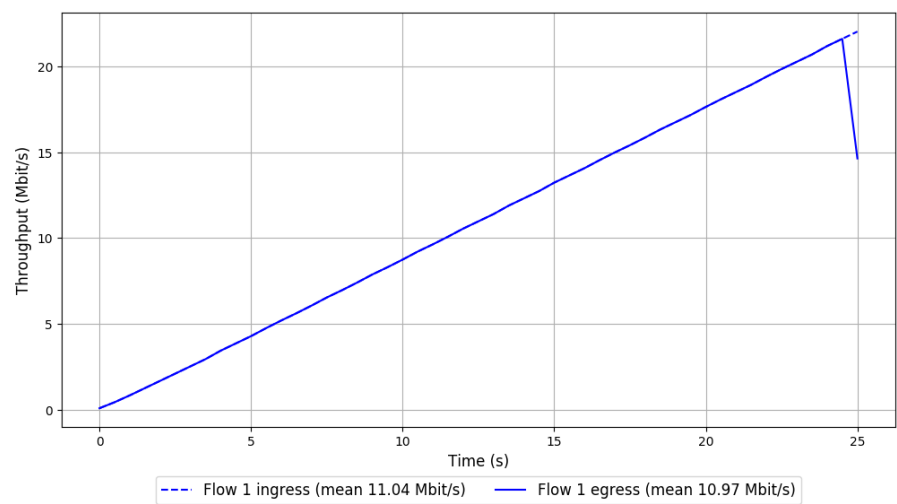Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2017-12-05 11:43:56
End at: 2017-12-05 11:44:26
Local clock offset: 1.433 ms
Remote clock offset: 1.984 ms
```

Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 10.58 Mbit/s)   Flow 1 egress (mean 10.51 Mbit/s)

Flow 1 (95th percentile 78.37 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2017-12-05 12:01:57
End at: 2017-12-05 12:02:27
Local clock offset: 1.009 ms
Remote clock offset: 1.384 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 79.507 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 79.507 ms
Loss rate: 1.32%
```

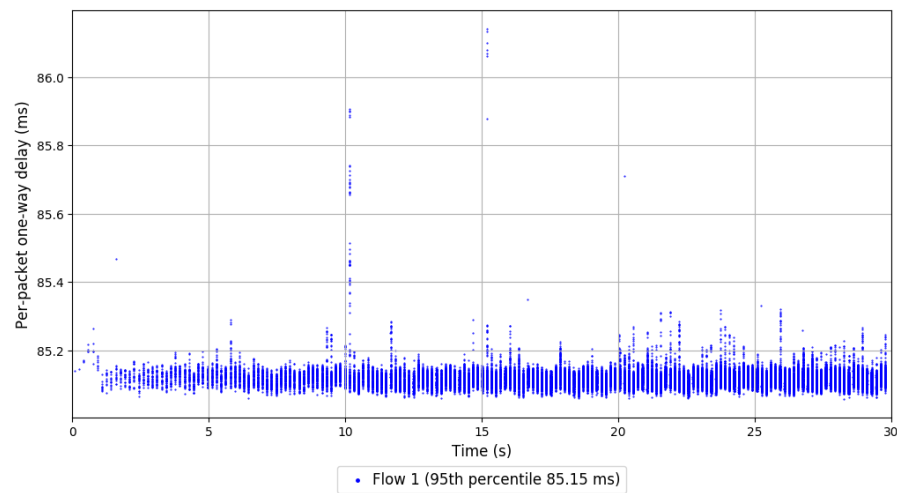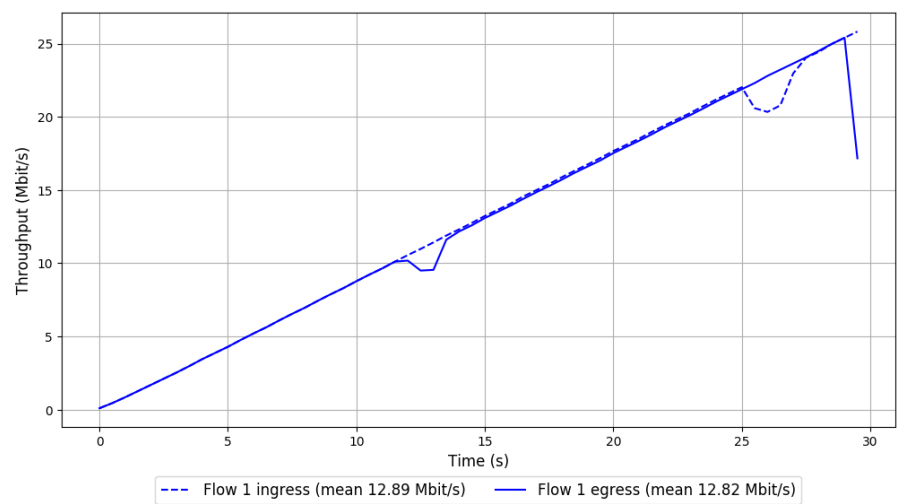Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2017-12-05 12:19:44
End at: 2017-12-05 12:20:14
Local clock offset: 0.546 ms
Remote clock offset: -4.874 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 83.710 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 83.710 ms
Loss rate: 1.32%
```

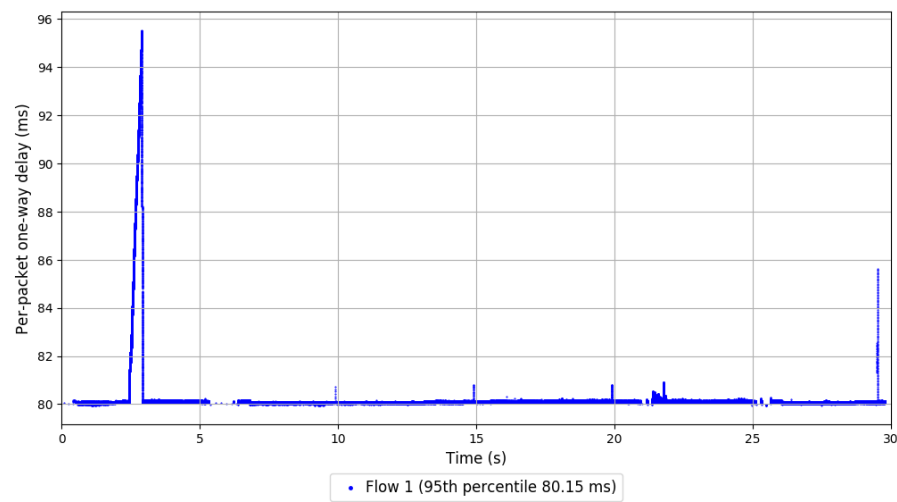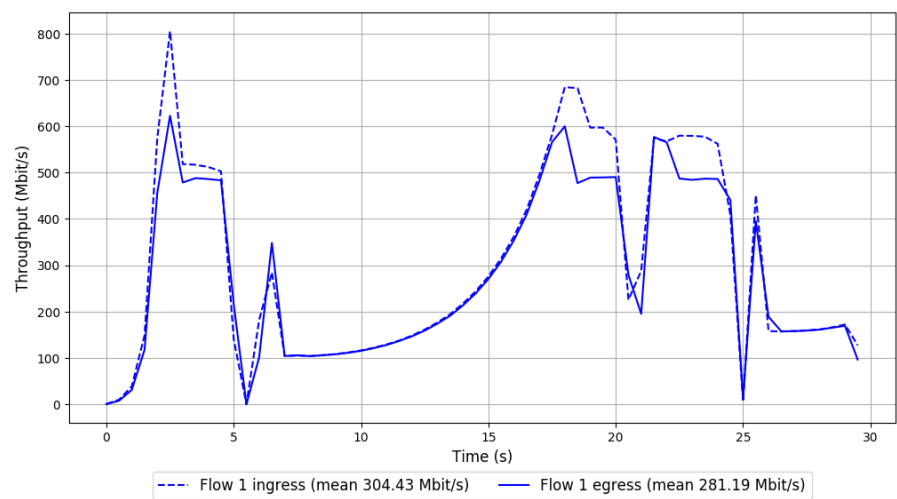# Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.04 Mbit/s)   Flow 1 egress (mean 10.97 Mbit/s)

Flow 1 (95th percentile 83.71 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2017-12-05 12:37:56
End at: 2017-12-05 12:38:26
Local clock offset: 0.24 ms
Remote clock offset: -5.458 ms


# Below is generated by plot.py at 2017-12-05 15:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 85.153 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 85.153 ms
Loss rate: 1.12%
```
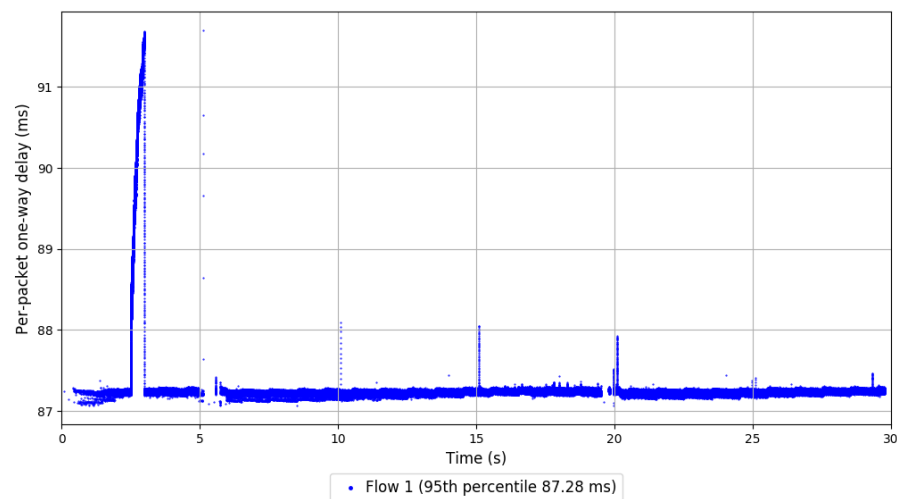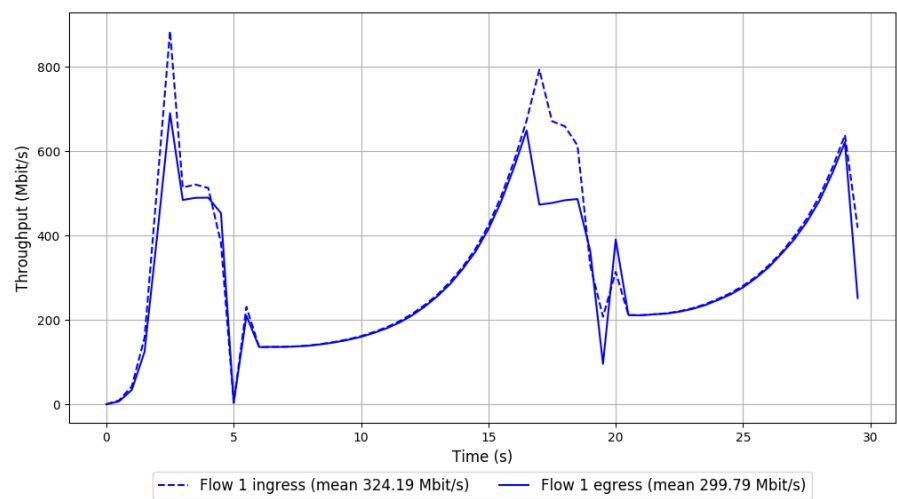
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.89 Mbit/s)   —— Flow 1 egress (mean 12.82 Mbit/s)

· Flow 1 (95th percentile 85.15 ms)

```
Run 1: Statistics of PCC

Start at: 2017-12-05 09:50:26
End at: 2017-12-05 09:50:56
Local clock offset: 1.127 ms
Remote clock offset: 2.677 ms

# Below is generated by plot.py at 2017-12-05 15:57:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.19 Mbit/s
95th percentile per-packet one-way delay: 80.152 ms
Loss rate: 8.15%
-- Flow 1:
Average throughput: 281.19 Mbit/s
95th percentile per-packet one-way delay: 80.152 ms
Loss rate: 8.15%
```
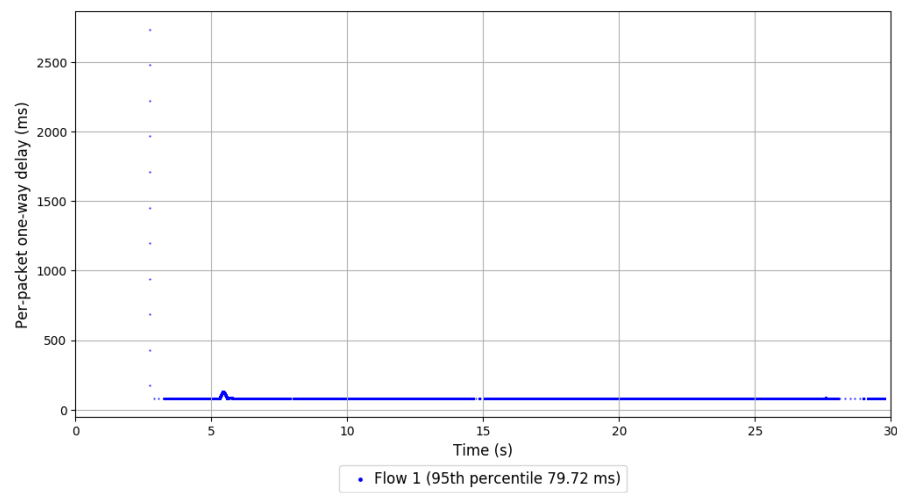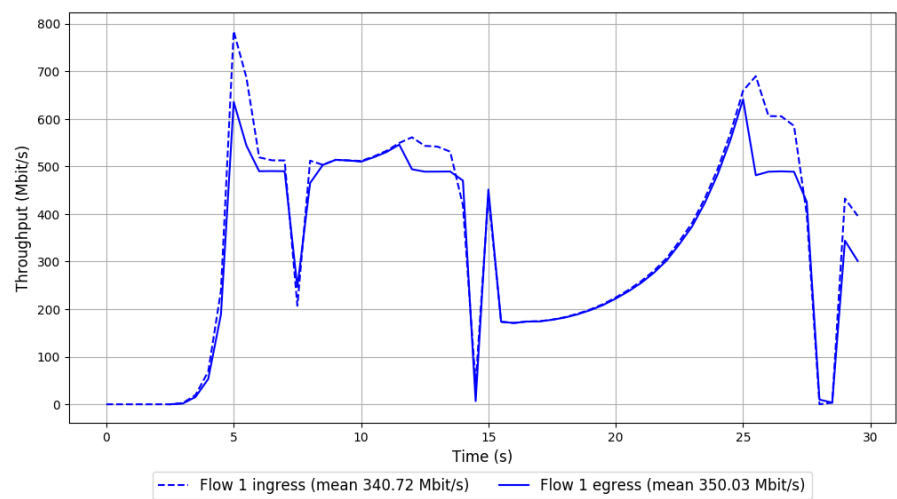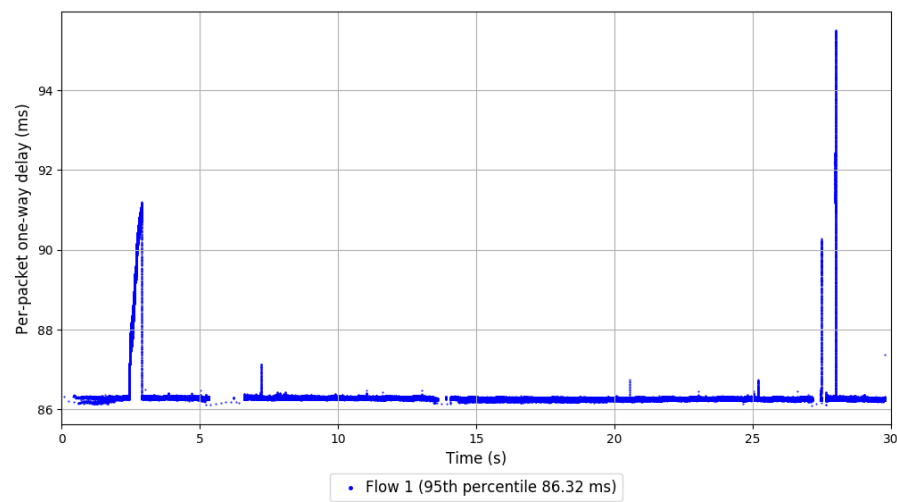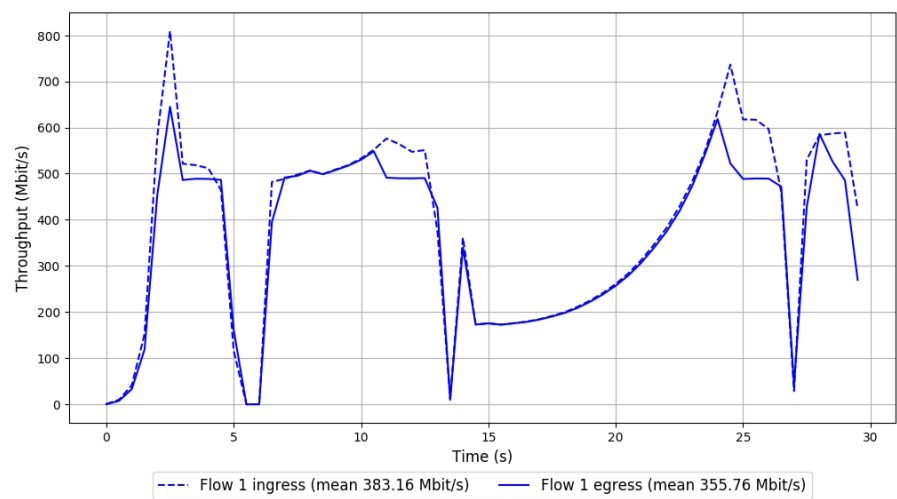
Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: 2017-12-05 10:08:26
End at: 2017-12-05 10:08:56
Local clock offset: 1.225 ms
Remote clock offset: -1.86 ms

# Below is generated by plot.py at 2017-12-05 15:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 299.79 Mbit/s
95th percentile per-packet one-way delay: 87.279 ms
Loss rate: 8.05%
-- Flow 1:
Average throughput: 299.79 Mbit/s
95th percentile per-packet one-way delay: 87.279 ms
Loss rate: 8.05%
```

Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 324.19 Mbit/s)   Flow 1 egress (mean 299.79 Mbit/s)

Flow 1 (95th percentile 87.28 ms)

```
Run 3: Statistics of PCC

Start at: 2017-12-05 10:26:40
End at: 2017-12-05 10:27:10
Local clock offset: 1.195 ms
Remote clock offset: 2.415 ms


# Below is generated by plot.py at 2017-12-05 15:58:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 350.03 Mbit/s
95th percentile per-packet one-way delay: 79.718 ms
Loss rate: 6.96%
-- Flow 1:
Average throughput: 350.03 Mbit/s
95th percentile per-packet one-way delay: 79.718 ms
Loss rate: 6.96%
```

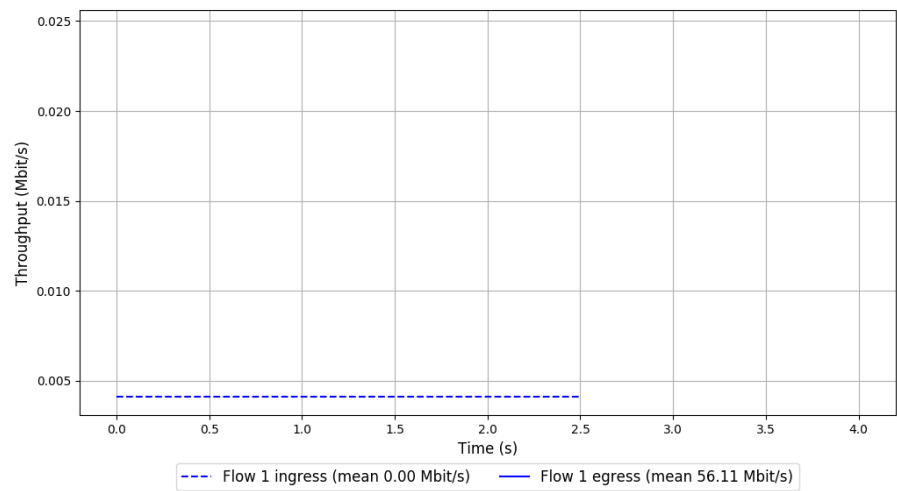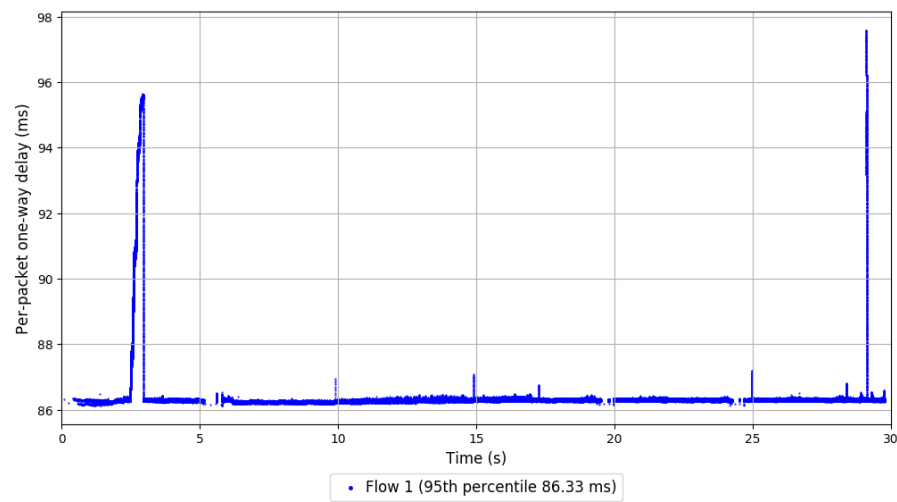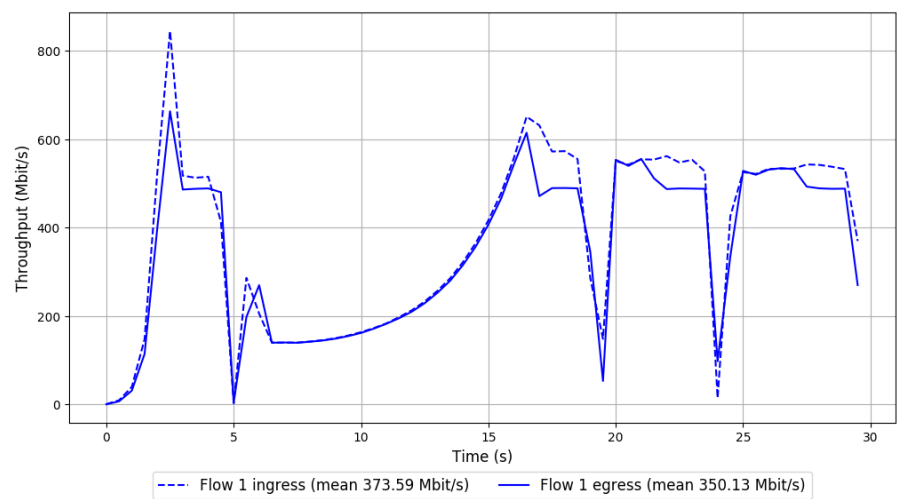# Run 3: Report of PCC — Data Link

```
Run 4: Statistics of PCC

Start at: 2017-12-05 10:44:43
End at: 2017-12-05 10:45:13
Local clock offset: 2.227 ms
Remote clock offset: -2.111 ms


# Below is generated by plot.py at 2017-12-05 15:58:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 355.76 Mbit/s
95th percentile per-packet one-way delay: 86.324 ms
Loss rate: 7.67%
-- Flow 1:
Average throughput: 355.76 Mbit/s
95th percentile per-packet one-way delay: 86.324 ms
Loss rate: 7.67%
```
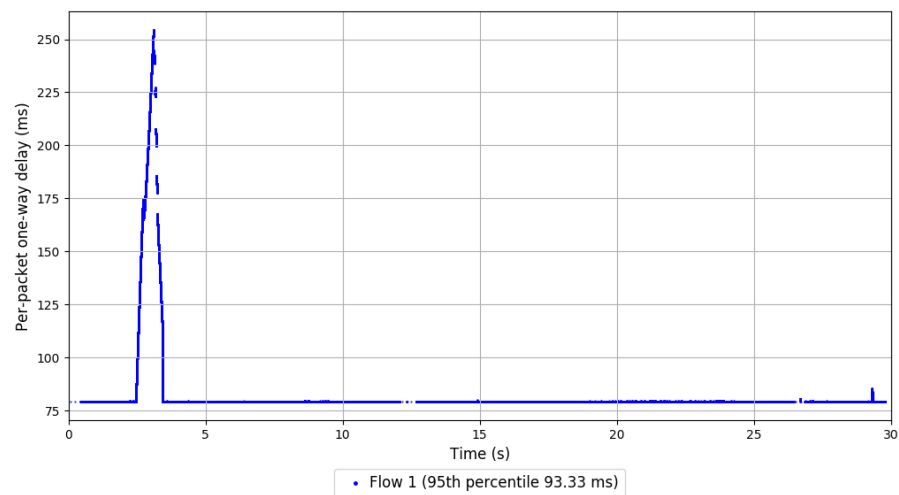
Run 4: Report of PCC — Data Link

```
Run 5: Statistics of PCC

Start at: 2017-12-05 11:02:39
End at: 2017-12-05 11:03:09
Local clock offset: 3.28 ms
Remote clock offset: 2.095 ms
```

Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s)   Flow 1 egress (mean 56.11 Mbit/s)

Flow 1 (95th percentile 3904.36 ms)

```
Run 6: Statistics of PCC

Start at: 2017-12-05 11:20:32
End at: 2017-12-05 11:21:02
Local clock offset: 2.421 ms
Remote clock offset: -4.421 ms


# Below is generated by plot.py at 2017-12-05 15:59:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 350.13 Mbit/s
95th percentile per-packet one-way delay: 86.334 ms
Loss rate: 6.80%
-- Flow 1:
Average throughput: 350.13 Mbit/s
95th percentile per-packet one-way delay: 86.334 ms
Loss rate: 6.80%
```
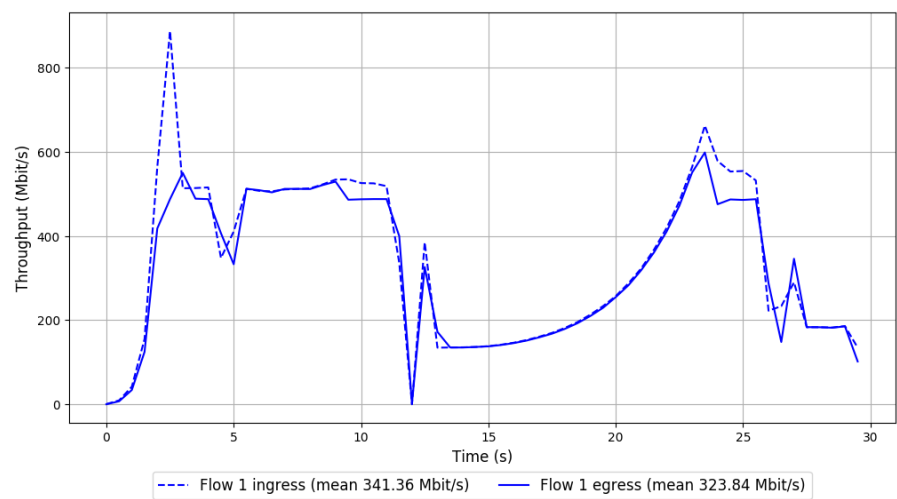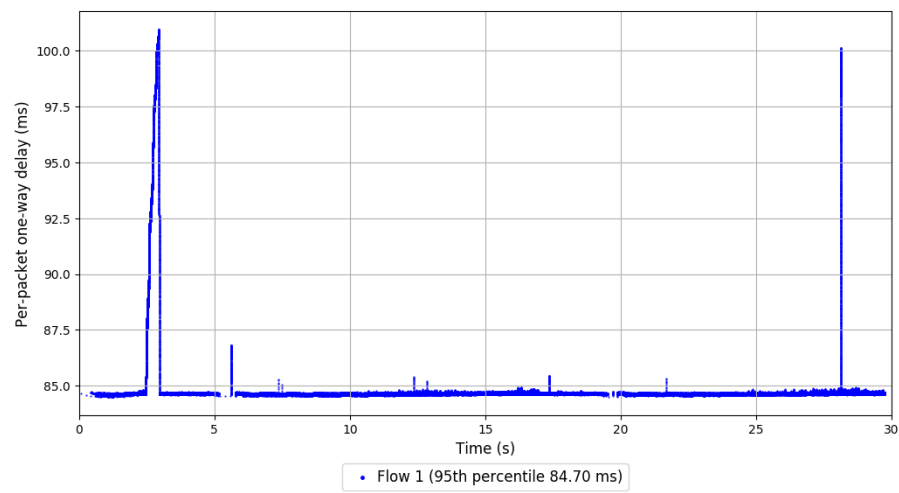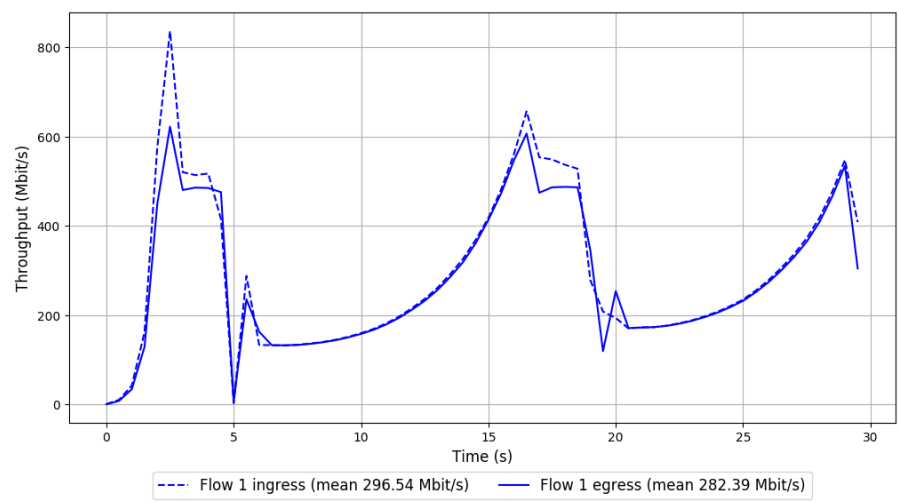
Run 6: Report of PCC — Data Link

```
Run 7: Statistics of PCC

Start at: 2017-12-05 11:38:43
End at: 2017-12-05 11:39:13
Local clock offset: 1.613 ms
Remote clock offset: 1.185 ms


# Below is generated by plot.py at 2017-12-05 15:59:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 323.84 Mbit/s
95th percentile per-packet one-way delay: 93.335 ms
Loss rate: 5.66%
-- Flow 1:
Average throughput: 323.84 Mbit/s
95th percentile per-packet one-way delay: 93.335 ms
Loss rate: 5.66%
```

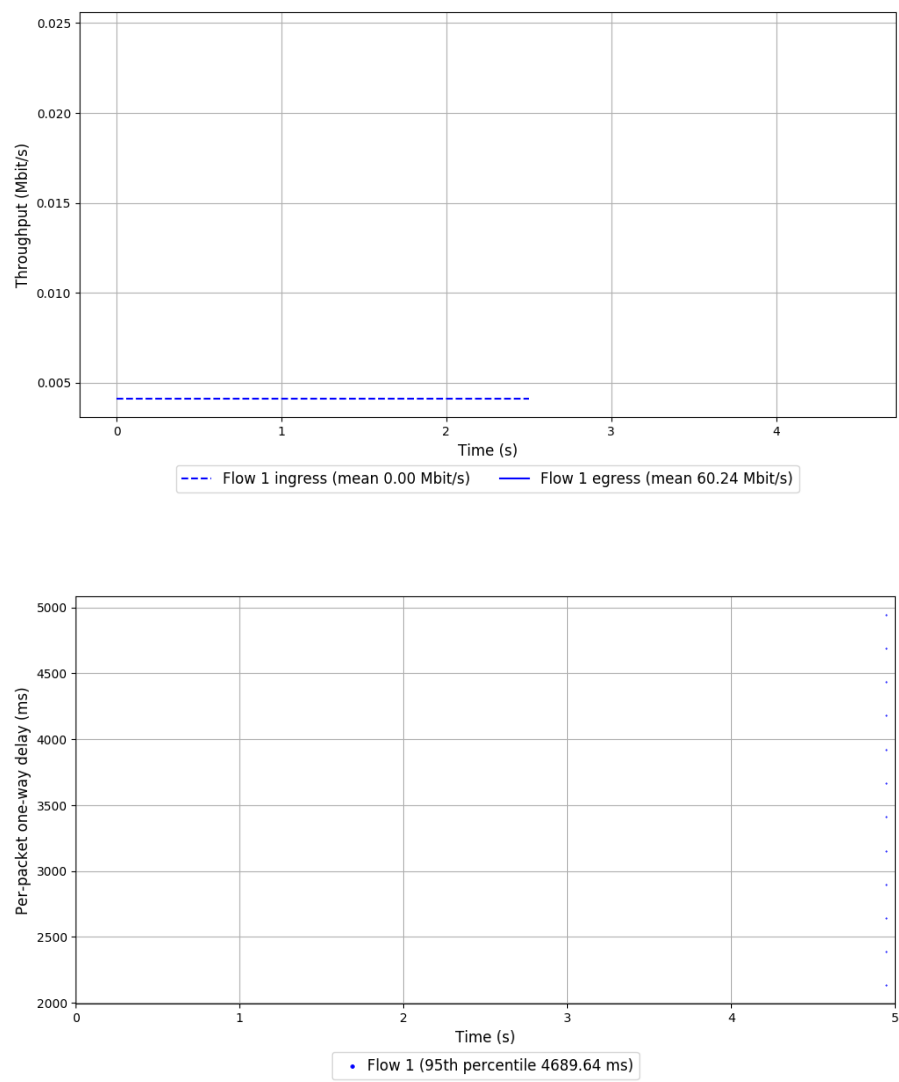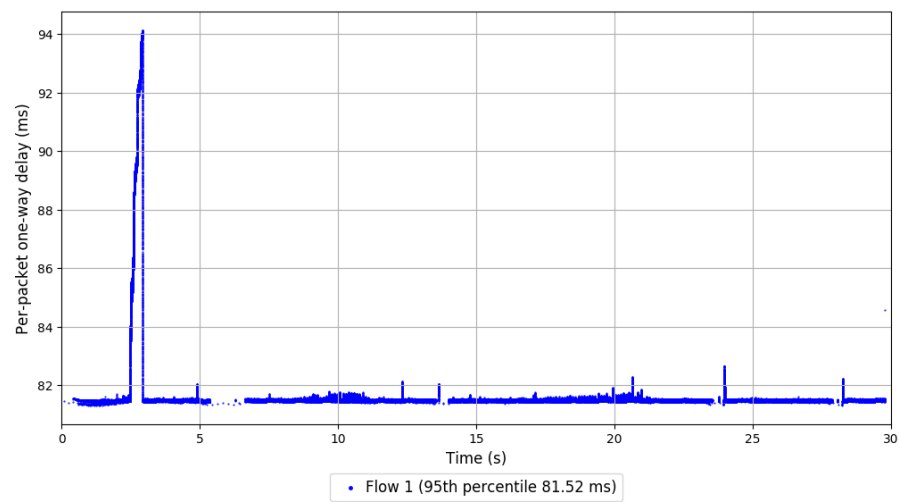# Run 7: Report of PCC — Data Link

```
Run 8: Statistics of PCC

Start at: 2017-12-05 11:56:45
End at: 2017-12-05 11:57:15
Local clock offset: 1.126 ms
Remote clock offset: -4.044 ms


# Below is generated by plot.py at 2017-12-05 15:59:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.39 Mbit/s
95th percentile per-packet one-way delay: 84.699 ms
Loss rate: 5.30%
-- Flow 1:
Average throughput: 282.39 Mbit/s
95th percentile per-packet one-way delay: 84.699 ms
Loss rate: 5.30%
```

Run 8: Report of PCC — Data Link

```
Run 9: Statistics of PCC

Start at: 2017-12-05 12:14:44
End at: 2017-12-05 12:15:14
Local clock offset: 0.733 ms
Remote clock offset: -5.512 ms
```
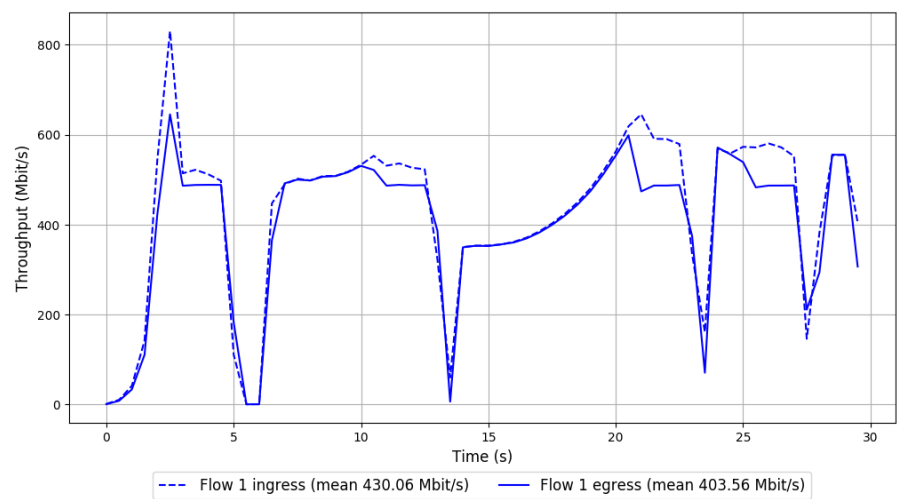
Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s)   Flow 1 egress (mean 60.24 Mbit/s)

• Flow 1 (95th percentile 4689.64 ms)

```
Run 10: Statistics of PCC

Start at: 2017-12-05 12:32:32
End at: 2017-12-05 12:33:02
Local clock offset: 0.271 ms
Remote clock offset: -1.399 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 403.56 Mbit/s
95th percentile per-packet one-way delay: 81.516 ms
Loss rate: 6.68%
-- Flow 1:
Average throughput: 403.56 Mbit/s
95th percentile per-packet one-way delay: 81.516 ms
Loss rate: 6.68%
```
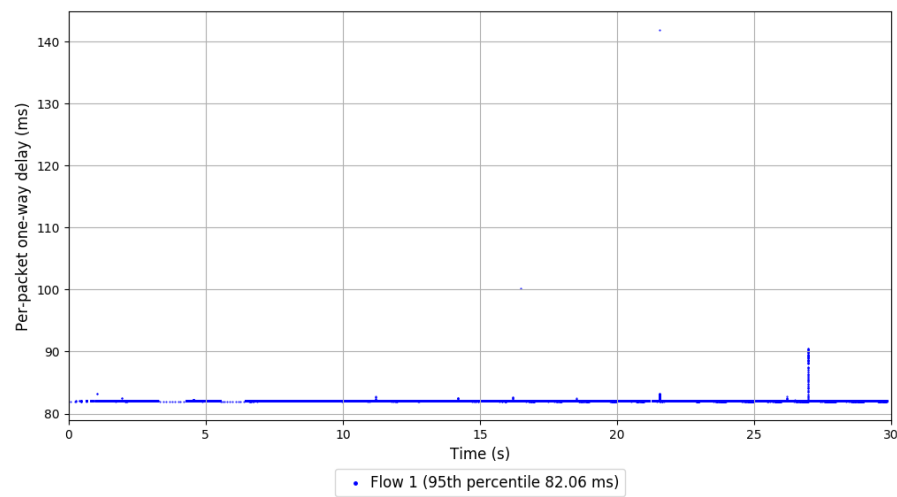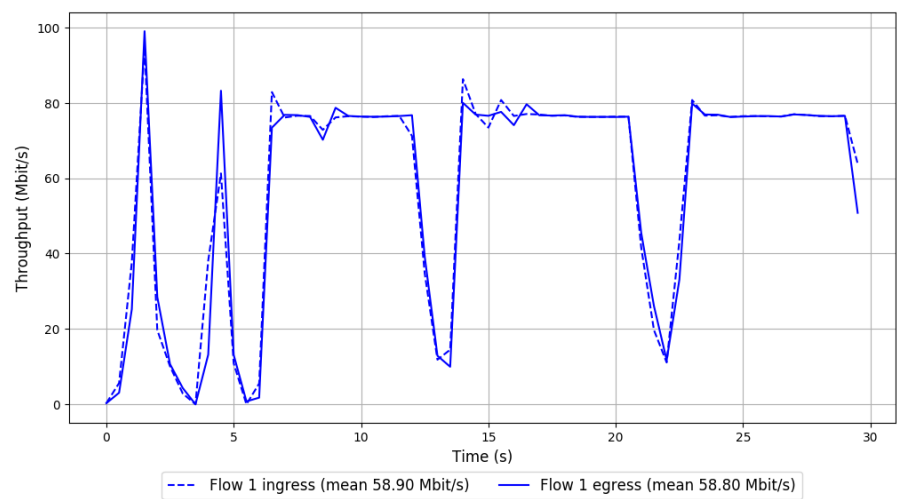
Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 430.06 Mbit/s) ——— Flow 1 egress (mean 403.56 Mbit/s)

• Flow 1 (95th percentile 81.52 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-05 10:01:57
End at: 2017-12-05 10:02:27
Local clock offset: 1.208 ms
Remote clock offset: 3.422 ms
```

Run 1: Report of QUIC Cubic — Data Link

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Figure is missing

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-12-05 10:20:07
End at: 2017-12-05 10:20:37
Local clock offset: 1.175 ms
Remote clock offset: 3.026 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.80 Mbit/s
95th percentile per-packet one-way delay: 82.063 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 58.80 Mbit/s
95th percentile per-packet one-way delay: 82.063 ms
Loss rate: 0.73%
```
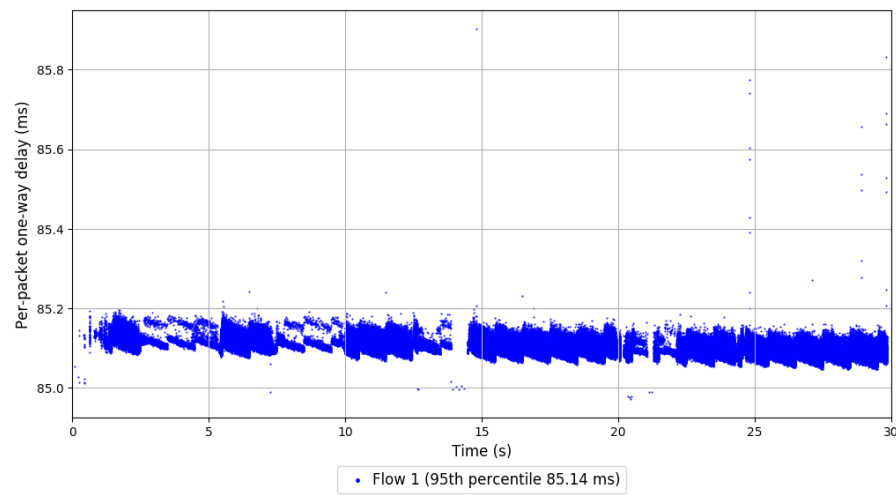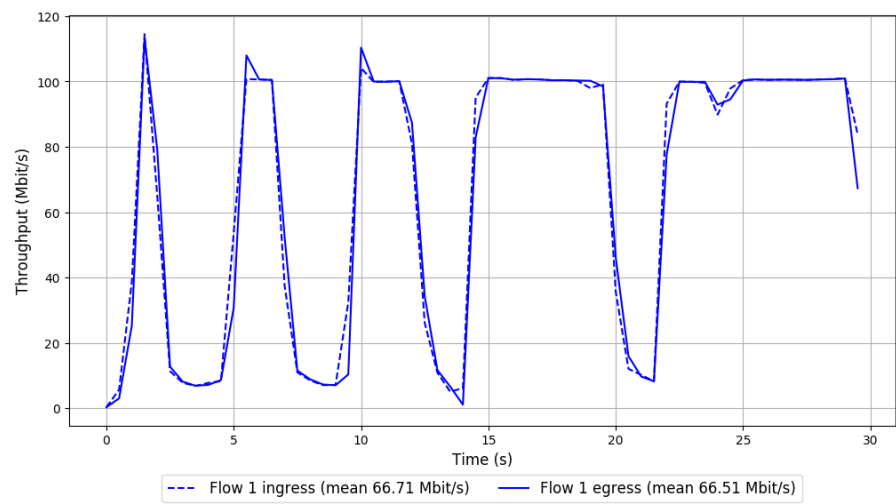
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 58.90 Mbit/s) --- Flow 1 egress (mean 58.80 Mbit/s)

Flow 1 (95th percentile 82.06 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-12-05 10:38:07
End at: 2017-12-05 10:38:37
Local clock offset: 1.764 ms
Remote clock offset: -2.697 ms
```

Run 3: Report of QUIC Cubic — Data Link

Figure is missing

Figure is missing

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-12-05 10:56:07
End at: 2017-12-05 10:56:37
Local clock offset: 2.96 ms
Remote clock offset: -2.538 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.51 Mbit/s
95th percentile per-packet one-way delay: 85.140 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 66.51 Mbit/s
95th percentile per-packet one-way delay: 85.140 ms
Loss rate: 0.84%
```
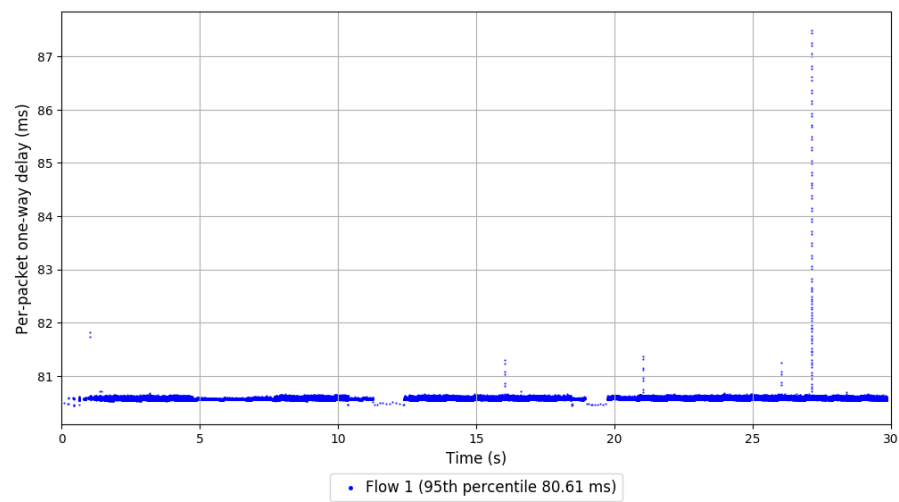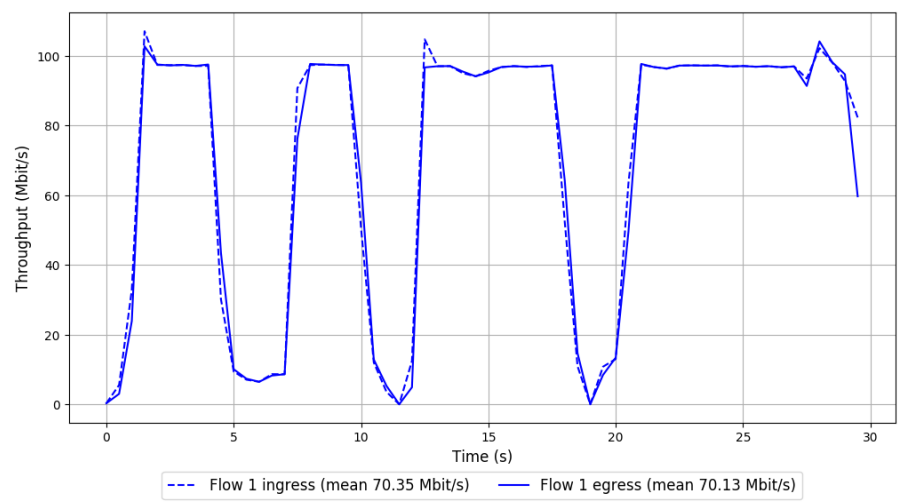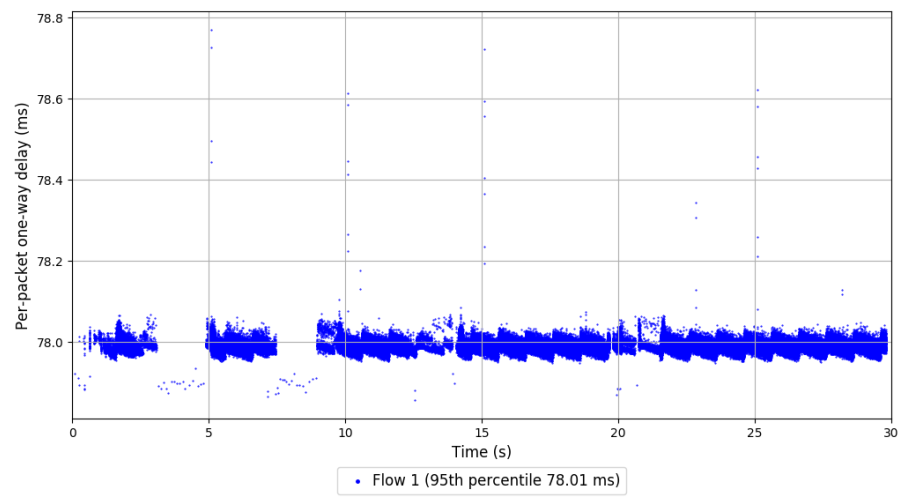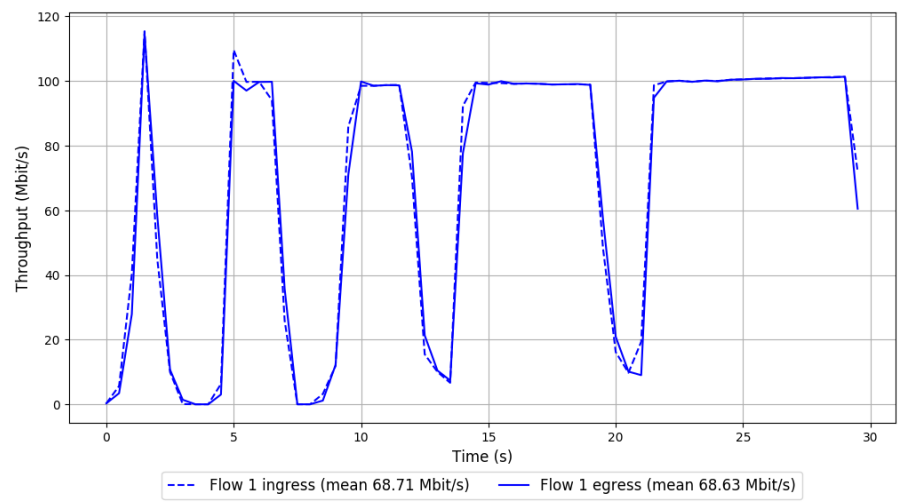
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-12-05 11:13:56
End at: 2017-12-05 11:14:26
Local clock offset: 2.881 ms
Remote clock offset: -3.793 ms
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 132.10 Mbit/s)   Flow 1 egress (mean 276.99 Mbit/s)

Flow 1 (95th percentile 86.28 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-12-05 11:32:11
End at: 2017-12-05 11:32:41
Local clock offset: 1.887 ms
Remote clock offset: 1.676 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.13 Mbit/s
95th percentile per-packet one-way delay: 80.610 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 70.13 Mbit/s
95th percentile per-packet one-way delay: 80.610 ms
Loss rate: 0.87%
```
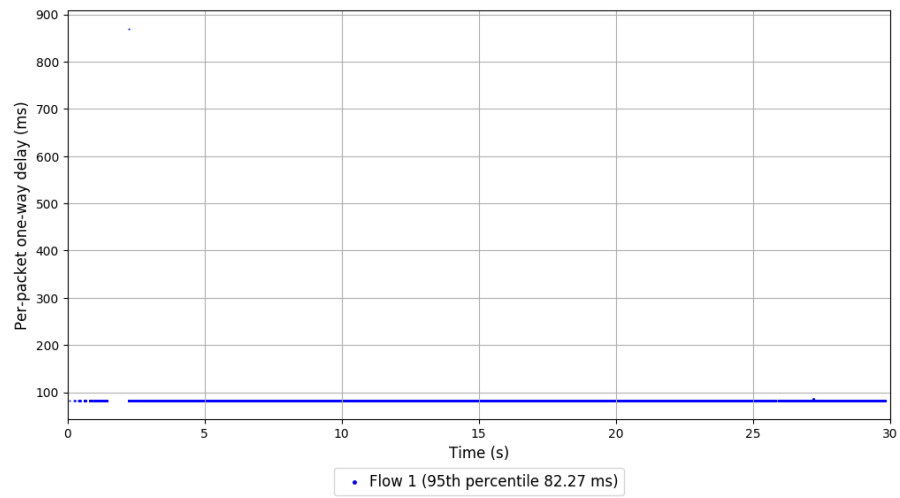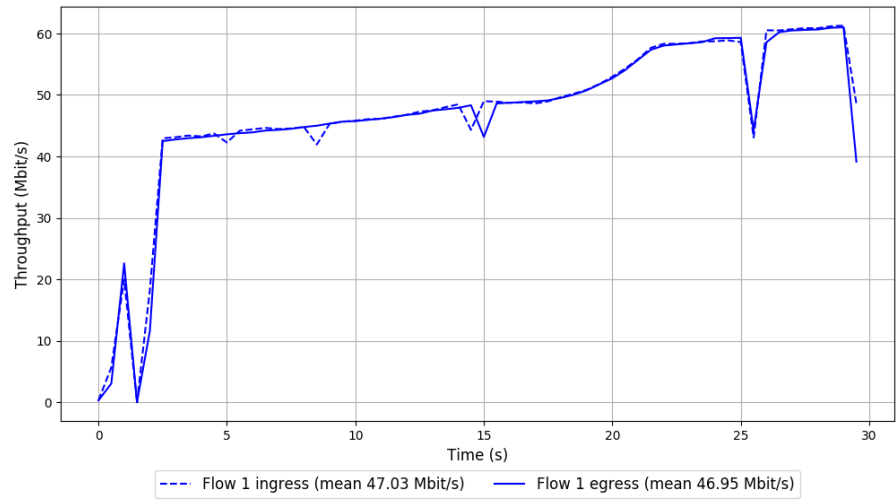
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-12-05 11:50:08
End at: 2017-12-05 11:50:38
Local clock offset: 1.253 ms
Remote clock offset: 2.086 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.63 Mbit/s
95th percentile per-packet one-way delay: 78.011 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 68.63 Mbit/s
95th percentile per-packet one-way delay: 78.011 ms
Loss rate: 0.66%
```
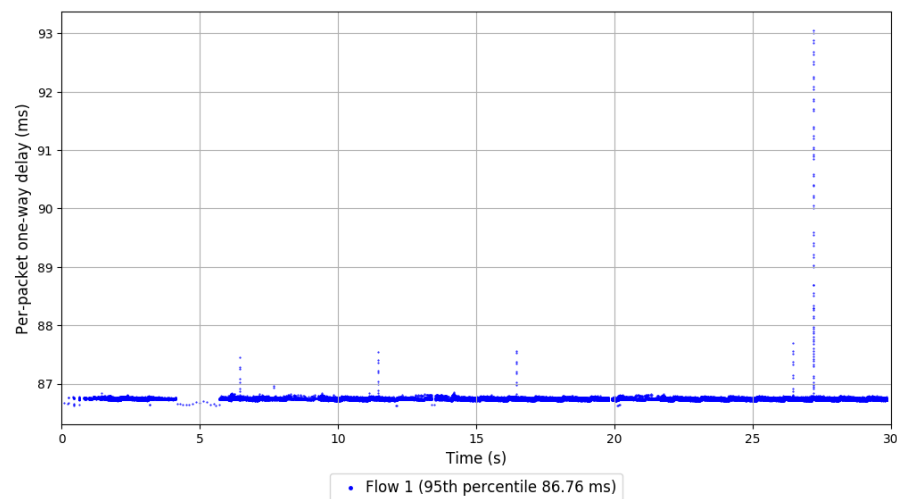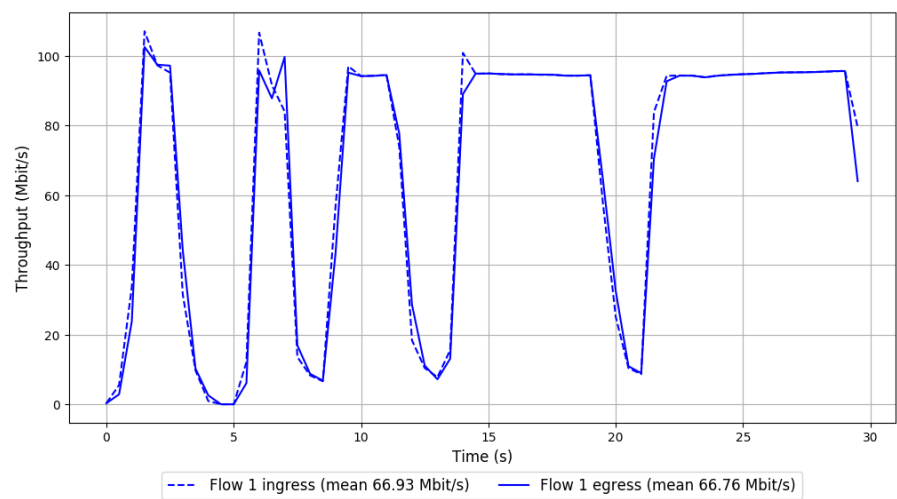
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 68.71 Mbit/s)   Flow 1 egress (mean 68.63 Mbit/s)

Flow 1 (95th percentile 78.01 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-12-05 12:08:13
End at: 2017-12-05 12:08:43
Local clock offset: 0.907 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.95 Mbit/s
95th percentile per-packet one-way delay: 82.273 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 46.95 Mbit/s
95th percentile per-packet one-way delay: 82.273 ms
Loss rate: 0.73%
```
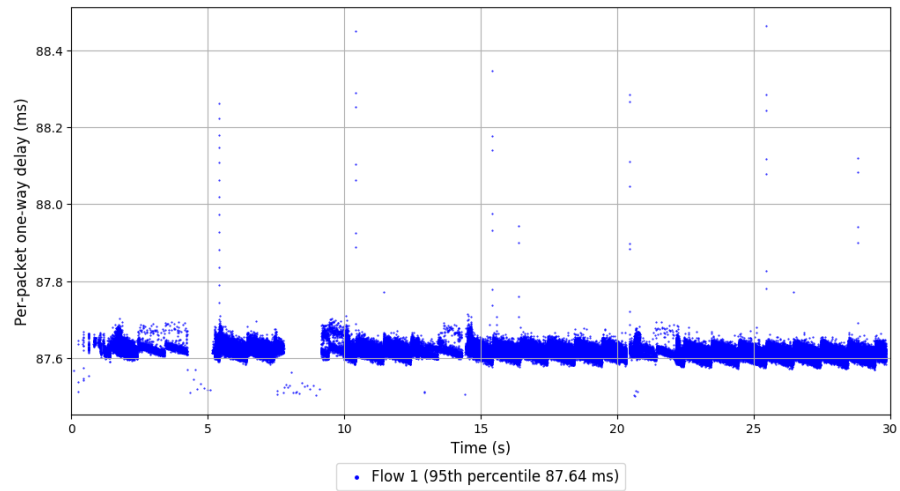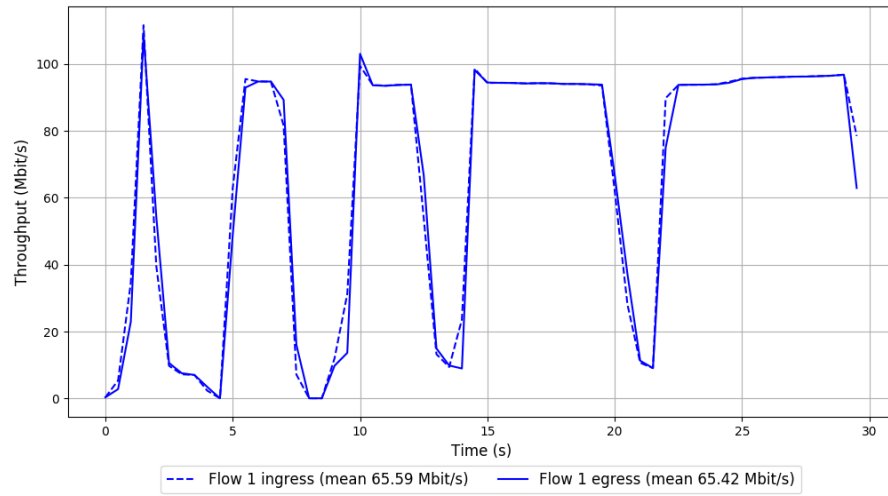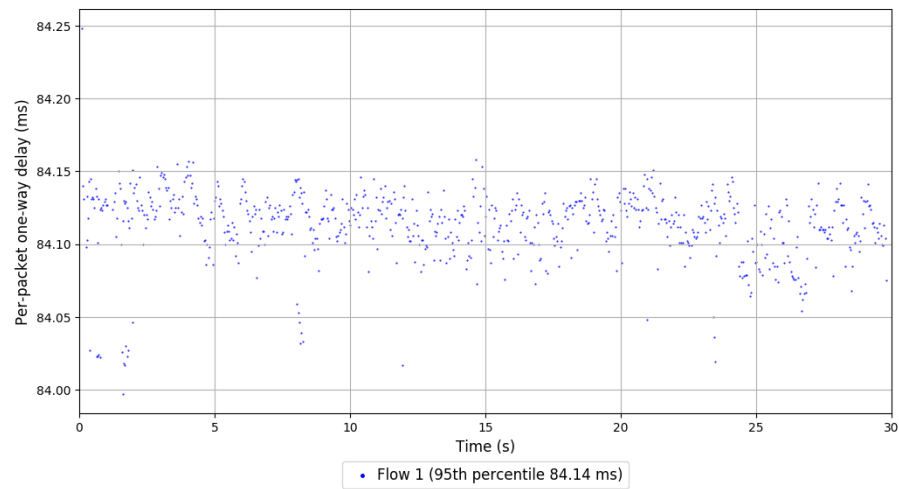
Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-12-05 12:25:56
End at: 2017-12-05 12:26:26
Local clock offset: 0.385 ms
Remote clock offset: -6.297 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.76 Mbit/s
95th percentile per-packet one-way delay: 86.763 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 66.76 Mbit/s
95th percentile per-packet one-way delay: 86.763 ms
Loss rate: 0.80%
```
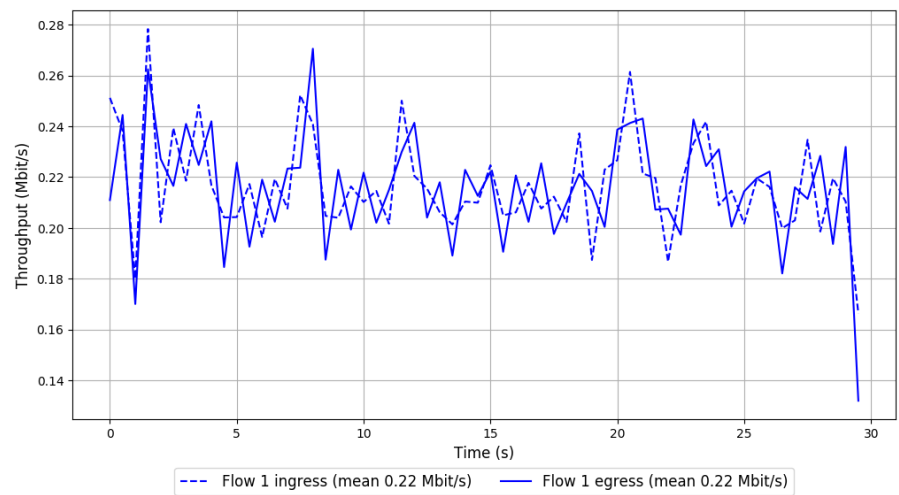
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 66.93 Mbit/s)   Flow 1 egress (mean 66.76 Mbit/s)

Flow 1 (95th percentile 86.76 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-05 12:44:11
End at: 2017-12-05 12:44:41
Local clock offset: 0.101 ms
Remote clock offset: -6.66 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.42 Mbit/s
95th percentile per-packet one-way delay: 87.641 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 65.42 Mbit/s
95th percentile per-packet one-way delay: 87.641 ms
Loss rate: 0.83%
```

Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 65.59 Mbit/s) --- Flow 1 egress (mean 65.42 Mbit/s)

Flow 1 (95th percentile 87.64 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-12-05 09:49:17
End at: 2017-12-05 09:49:47
Local clock offset: 1.169 ms
Remote clock offset: -1.277 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.143 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.143 ms
Loss rate: 0.51%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-12-05 10:07:17
End at: 2017-12-05 10:07:47
Local clock offset: 1.143 ms
Remote clock offset: -1.428 ms
```

Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 85.64 ms)
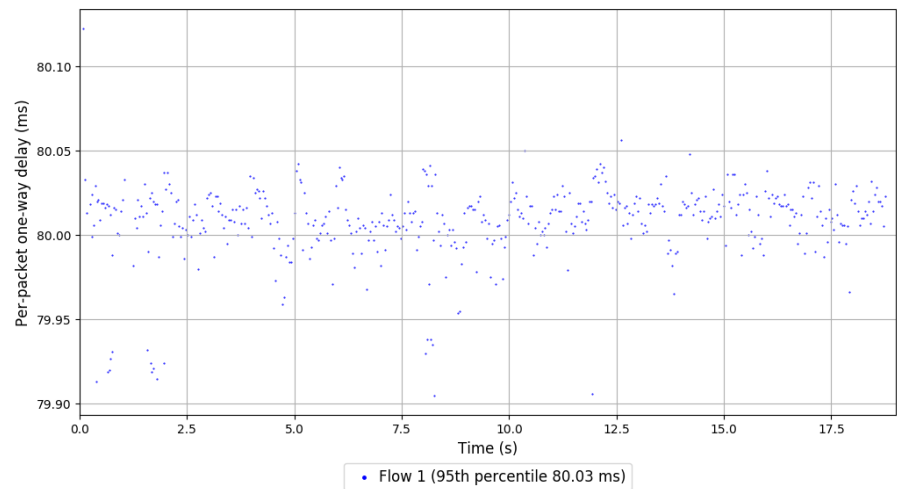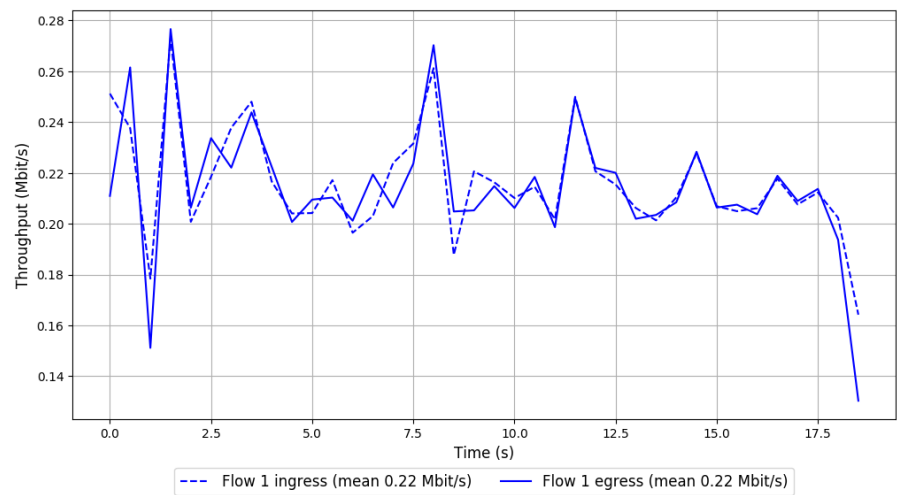
```
Run 3: Statistics of SCReAM

Start at: 2017-12-05 10:25:31
End at: 2017-12-05 10:26:01
Local clock offset: 1.184 ms
Remote clock offset: 4.257 ms
```

Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 79.99 ms)

```
Run 4: Statistics of SCReAM

Start at: 2017-12-05 10:43:34
End at: 2017-12-05 10:44:04
Local clock offset: 2.205 ms
Remote clock offset: -2.799 ms
```

Run 4: 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 86.17 ms)

```
Run 5: Statistics of SCReAM

Start at: 2017-12-05 11:01:30
End at: 2017-12-05 11:02:00
Local clock offset: 3.221 ms
Remote clock offset: -2.703 ms
```

Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-12-05 11:19:23
End at: 2017-12-05 11:19:53
Local clock offset: 2.549 ms
Remote clock offset: 1.963 ms
```
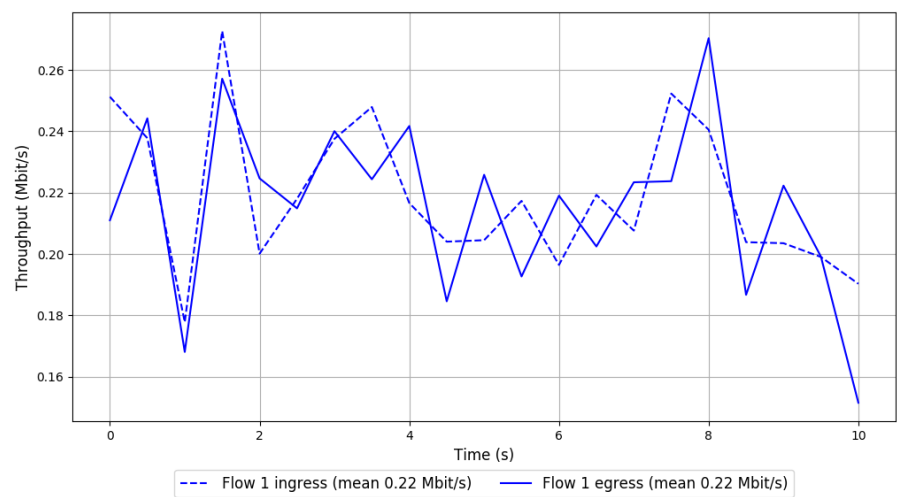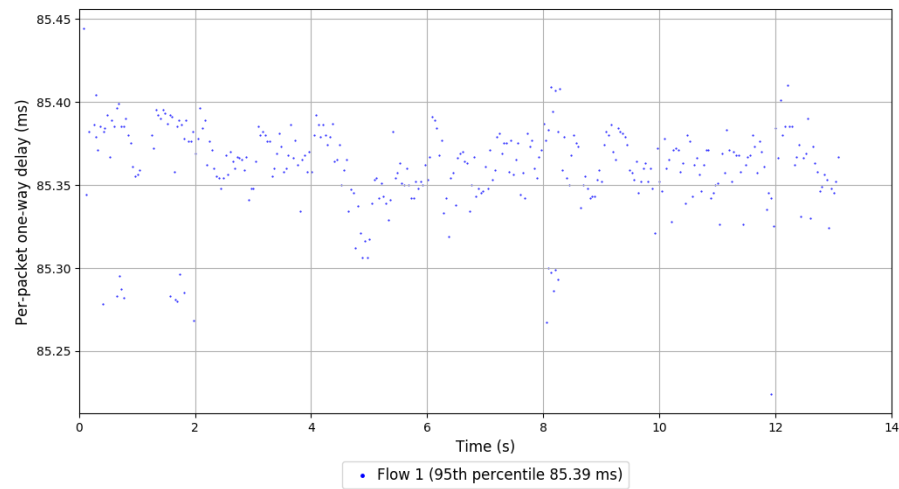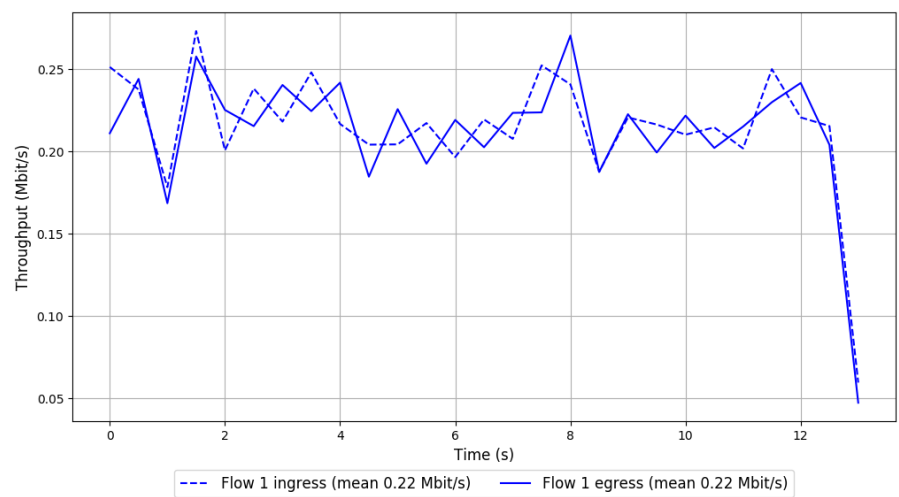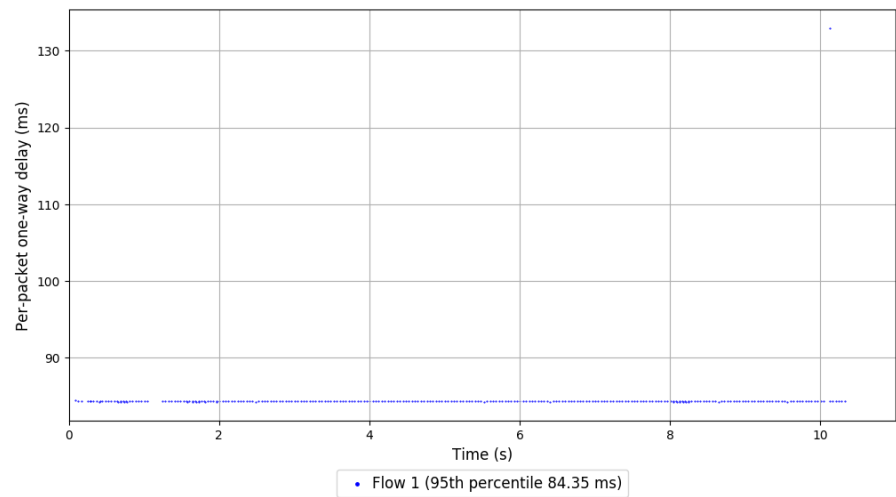
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 80.03 ms)

```
Run 7: Statistics of SCReAM

Start at: 2017-12-05 11:37:34
End at: 2017-12-05 11:38:04
Local clock offset: 1.594 ms
Remote clock offset: -3.45 ms
```

Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2017-12-05 11:55:36
End at: 2017-12-05 11:56:06
Local clock offset: 1.087 ms
Remote clock offset: -4.035 ms
```

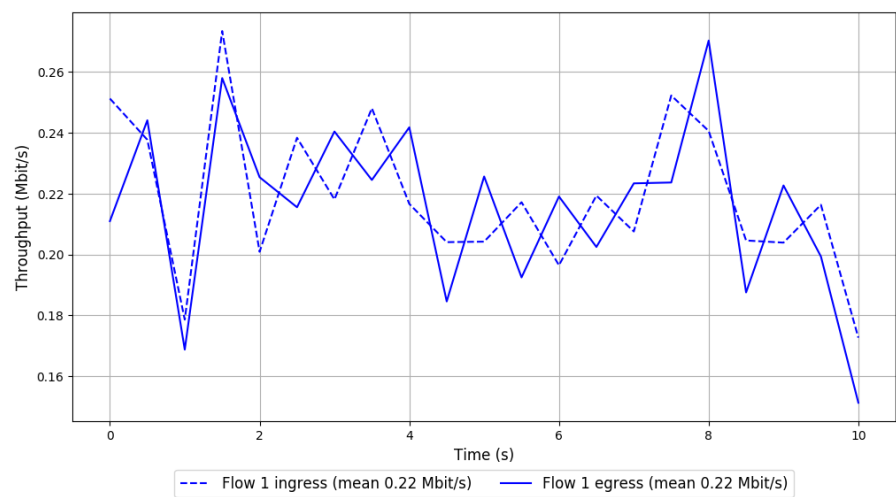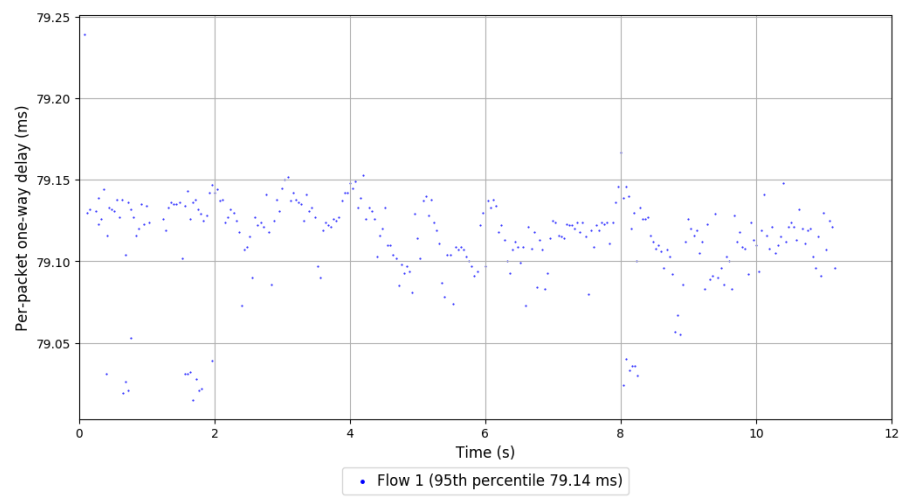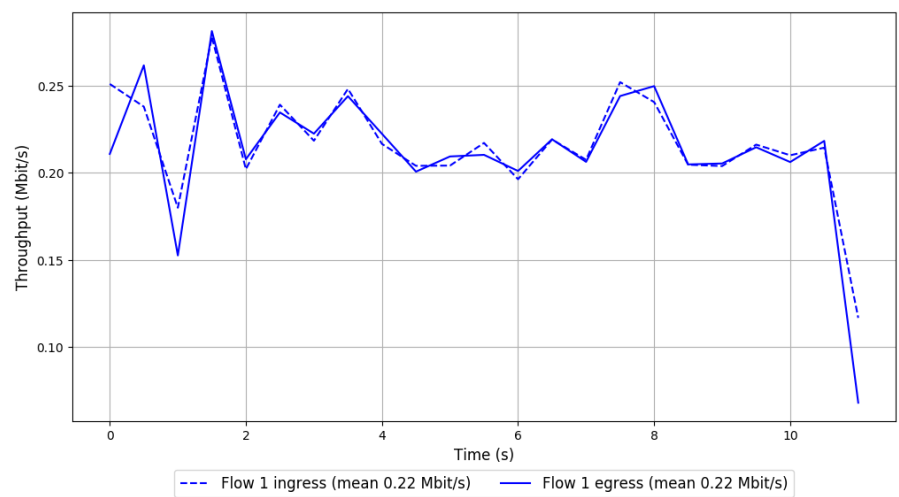# Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2017-12-05 12:13:35
End at: 2017-12-05 12:14:05
Local clock offset: 0.709 ms
Remote clock offset: -5.066 ms
```

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 84.35 ms)

```
Run 10: Statistics of SCReAM

Start at: 2017-12-05 12:31:23
End at: 2017-12-05 12:31:53
Local clock offset: 0.367 ms
Remote clock offset: -0.804 ms
```
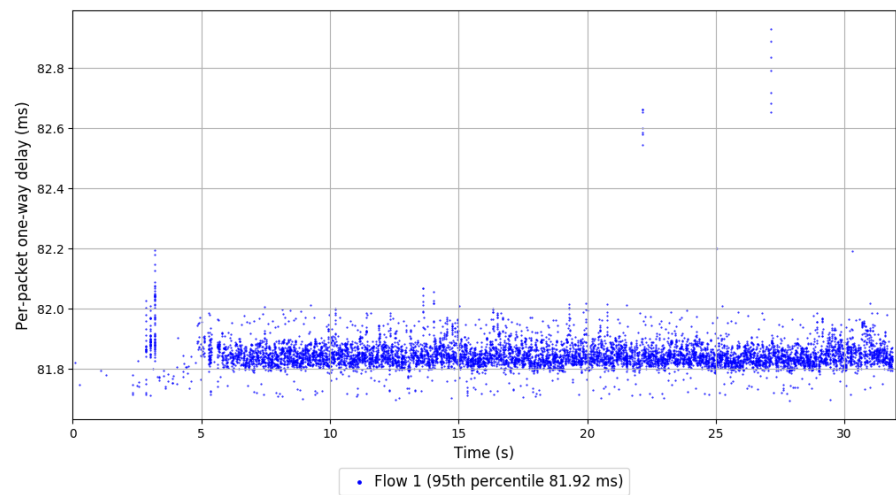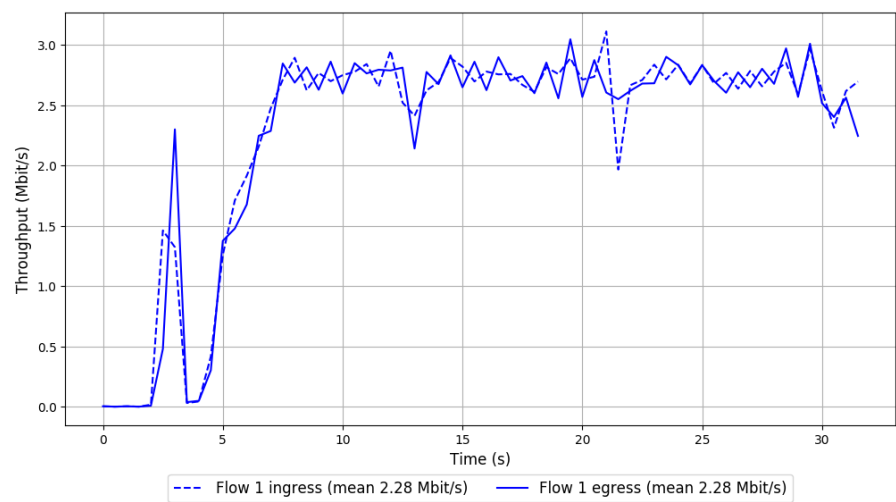
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2017-12-05 09:54:32
End at: 2017-12-05 09:55:02
Local clock offset: 1.177 ms
Remote clock offset: 3.542 ms

# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.922 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.922 ms
Loss rate: 0.63%
```
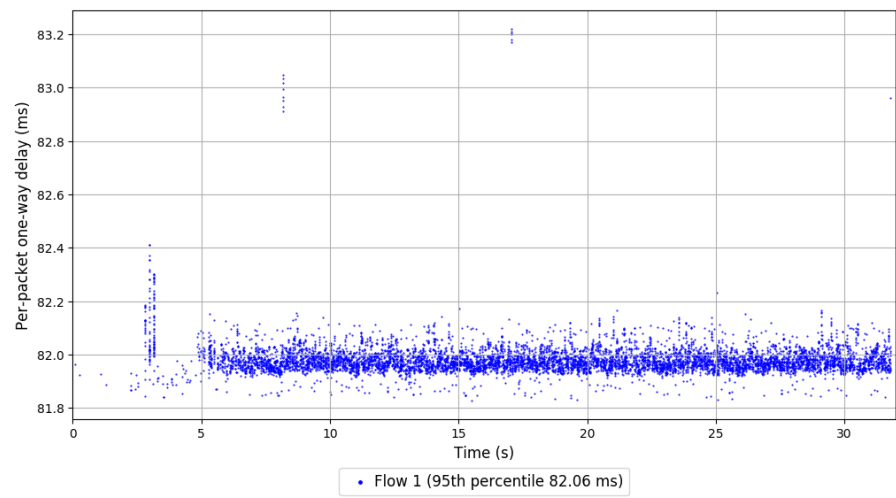
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.28 Mbit/s)   Flow 1 egress (mean 2.28 Mbit/s)

Flow 1 (95th percentile 81.92 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2017-12-05 10:12:40
End at: 2017-12-05 10:13:10
Local clock offset: 1.186 ms
Remote clock offset: 3.794 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 82.059 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 82.059 ms
Loss rate: 0.66%
```
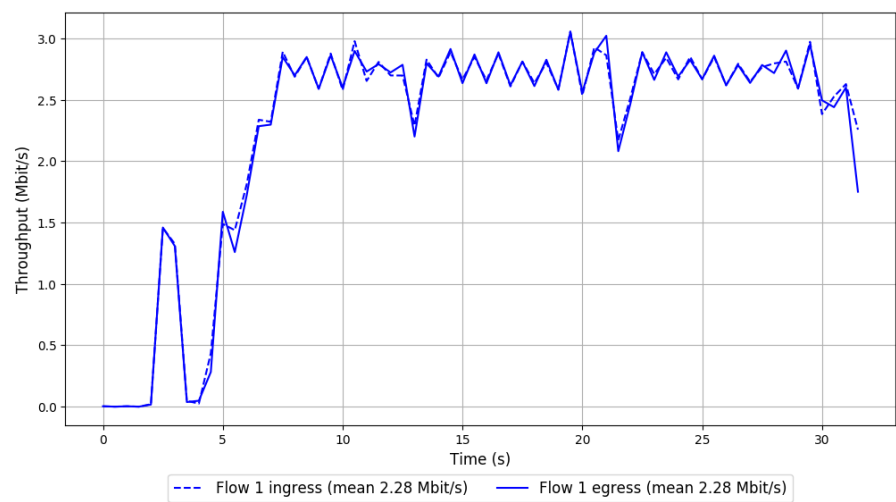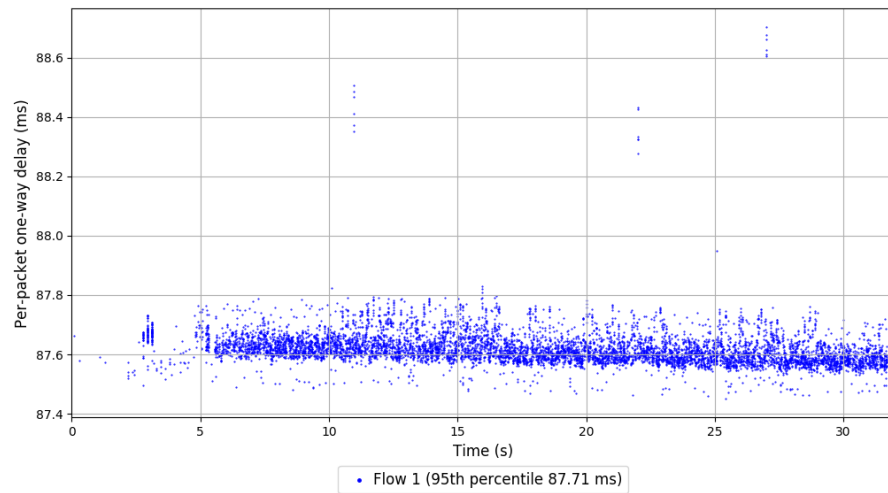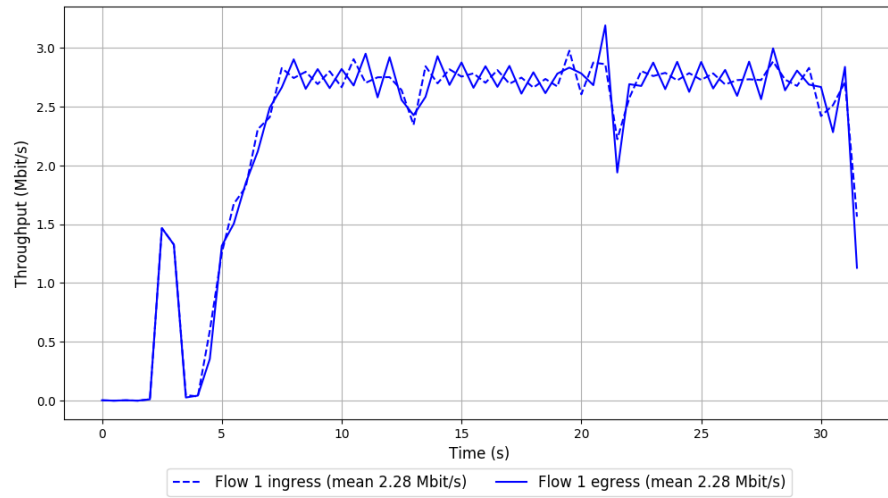
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-12-05 10:30:41
End at: 2017-12-05 10:31:11
Local clock offset: 1.162 ms
Remote clock offset: -2.853 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.712 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.712 ms
Loss rate: 0.60%
```
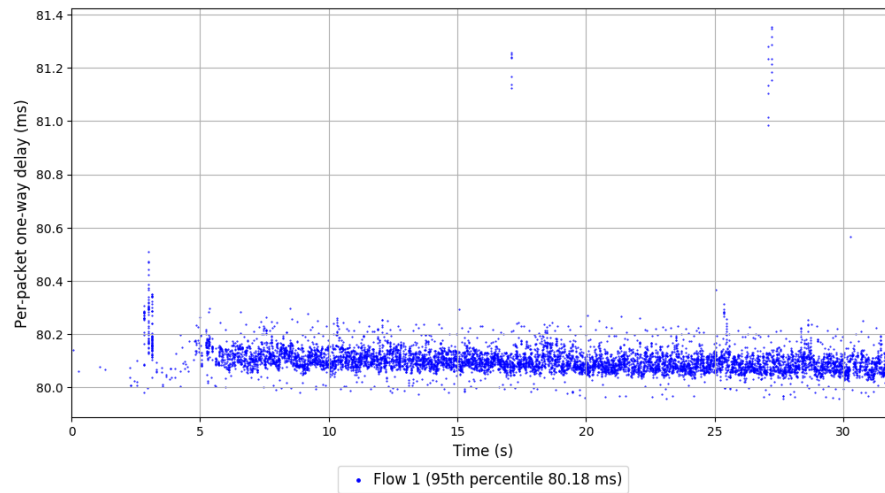
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2017-12-05 10:48:44
End at: 2017-12-05 10:49:14
Local clock offset: 2.444 ms
Remote clock offset: 2.639 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 80.177 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 80.177 ms
Loss rate: 0.62%
```
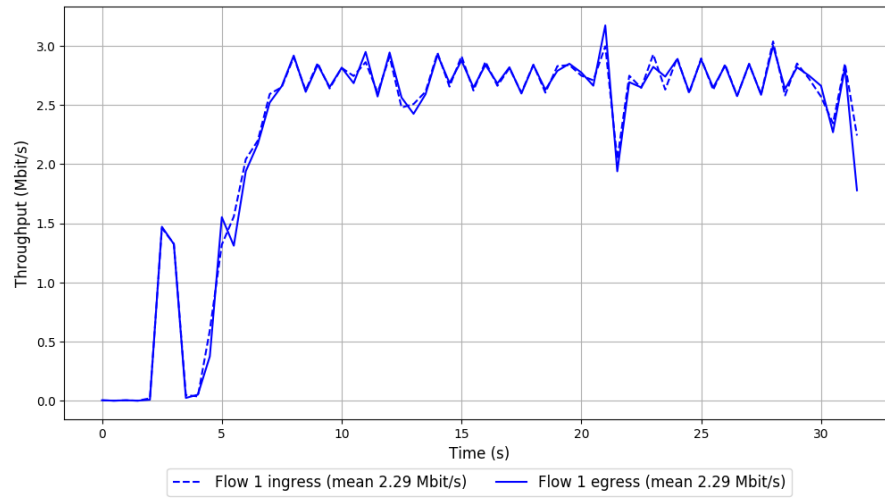
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-12-05 11:06:31
End at: 2017-12-05 11:07:01
Local clock offset: 3.355 ms
Remote clock offset: -3.33 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.035 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.035 ms
Loss rate: 0.61%
```
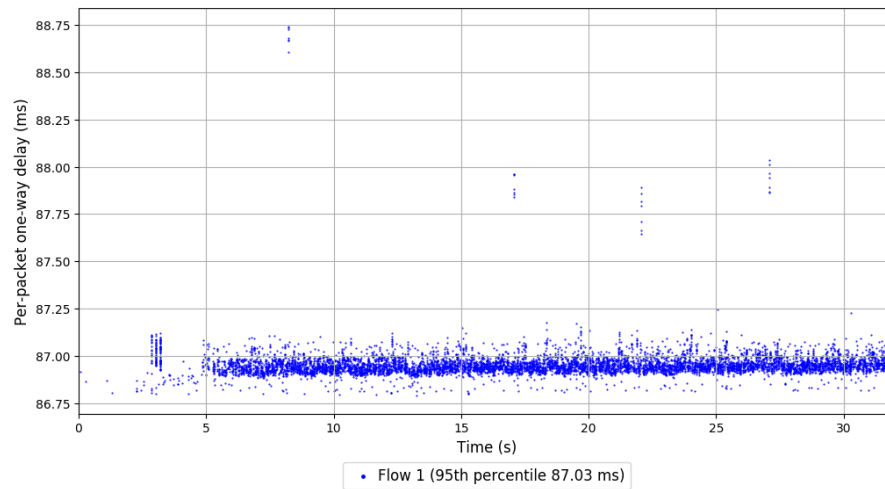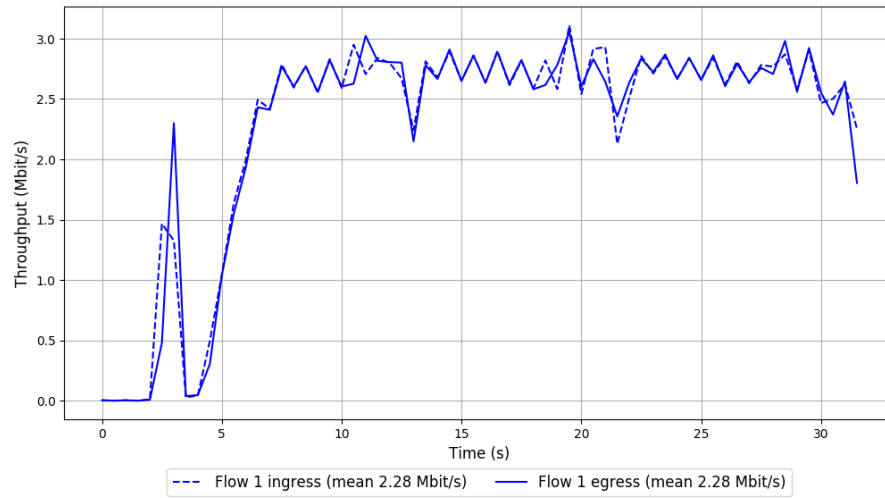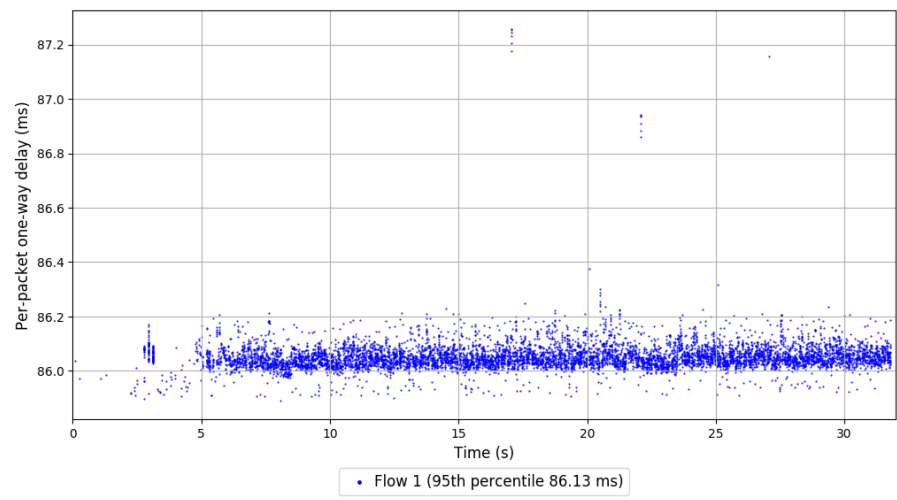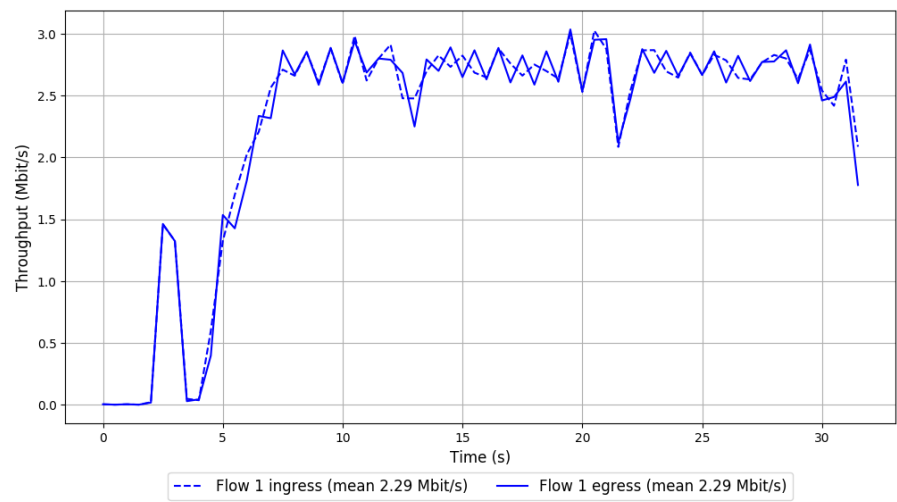
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-12-05 11:24:47
End at: 2017-12-05 11:25:17
Local clock offset: 2.232 ms
Remote clock offset: -4.096 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 86.129 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 86.129 ms
Loss rate: 0.62%
```

Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-12-05 11:42:47
End at: 2017-12-05 11:43:17
Local clock offset: 1.392 ms
Remote clock offset: 1.234 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.877 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.877 ms
Loss rate: 0.62%
```
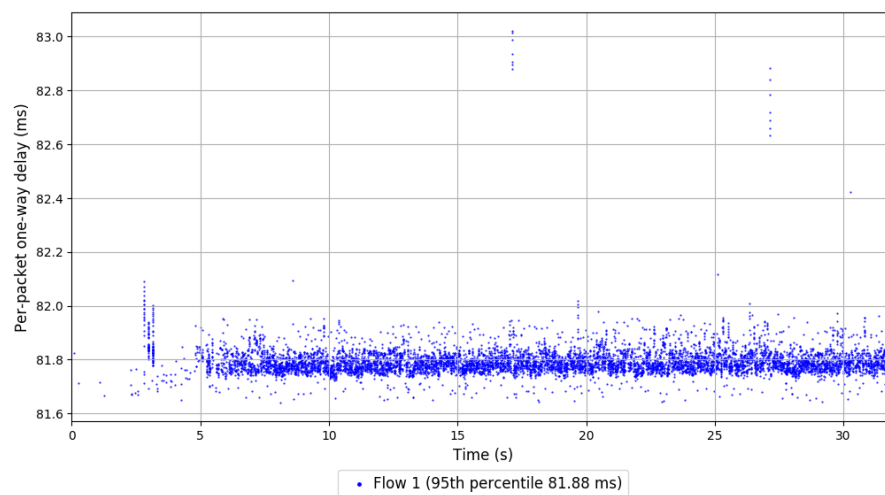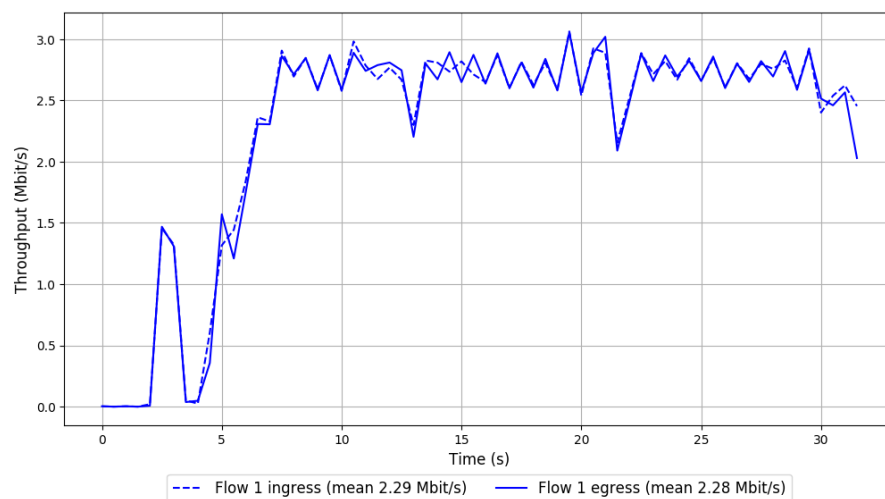
Run 7: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.29 Mbit/s)   Flow 1 egress (mean 2.28 Mbit/s)

Flow 1 (95th percentile 81.88 ms)

```
Run 8: Statistics of WebRTC media

Start at: 2017-12-05 12:00:47
End at: 2017-12-05 12:01:17
Local clock offset: 1.055 ms
Remote clock offset: 0.948 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.674 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.674 ms
Loss rate: 0.61%
```
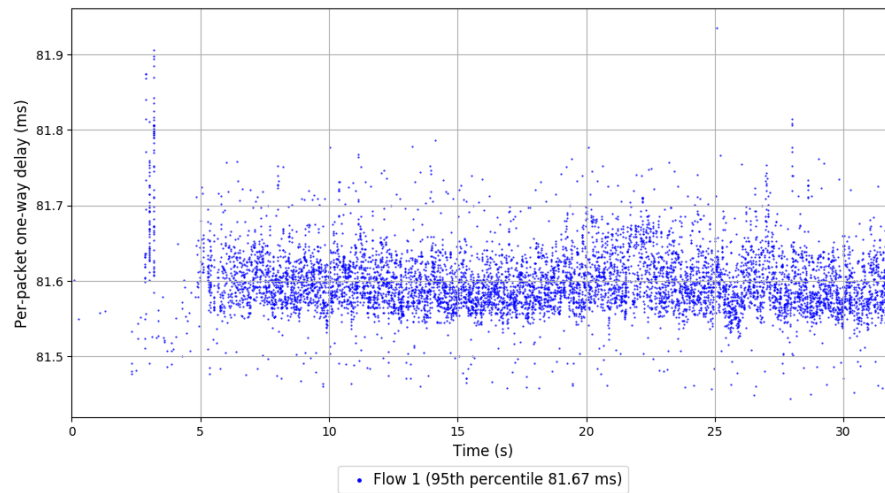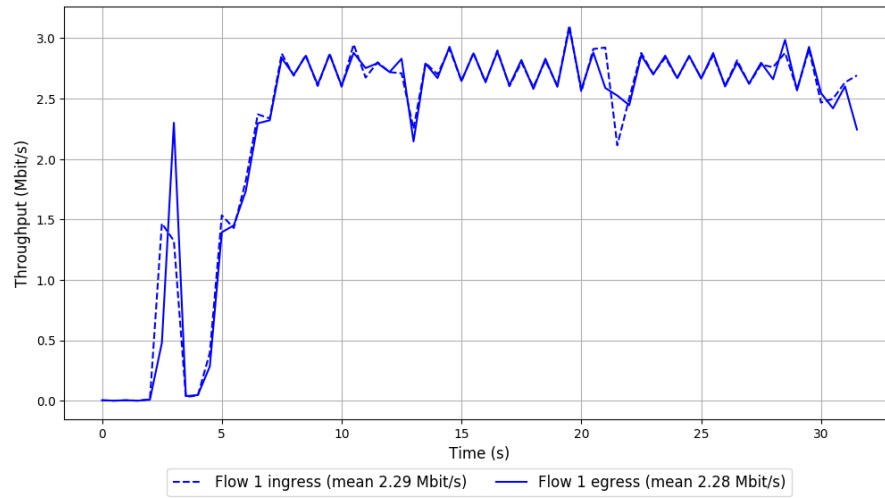
Run 8: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.29 Mbit/s)   Flow 1 egress (mean 2.28 Mbit/s)
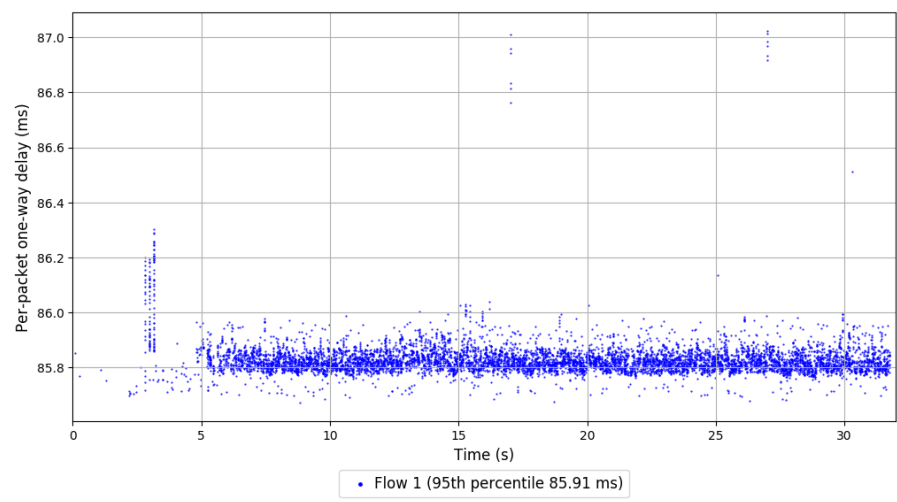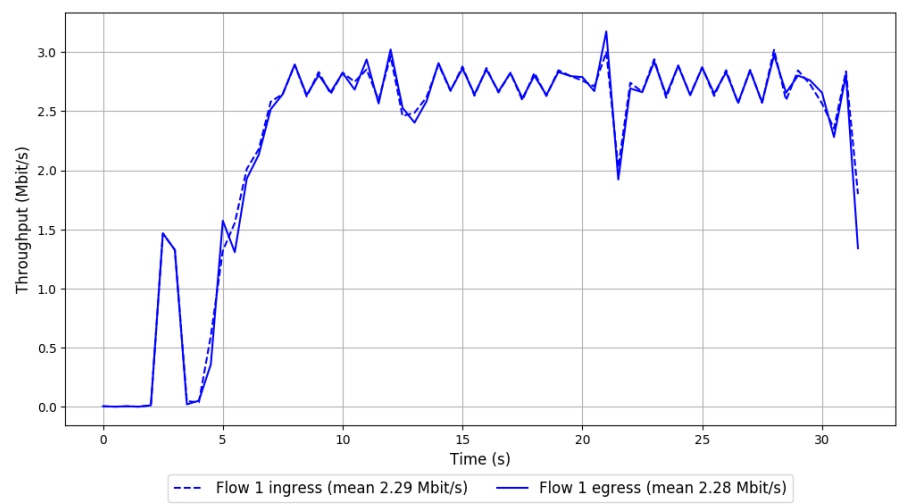

Flow 1 (95th percentile 81.67 ms)

```
Run 9: Statistics of WebRTC media

Start at: 2017-12-05 12:18:34
End at: 2017-12-05 12:19:04
Local clock offset: 0.639 ms
Remote clock offset: -5.264 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 85.907 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 85.907 ms
Loss rate: 0.62%
```

Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.29 Mbit/s)   Flow 1 egress (mean 2.28 Mbit/s)

Flow 1 (95th percentile 85.91 ms)
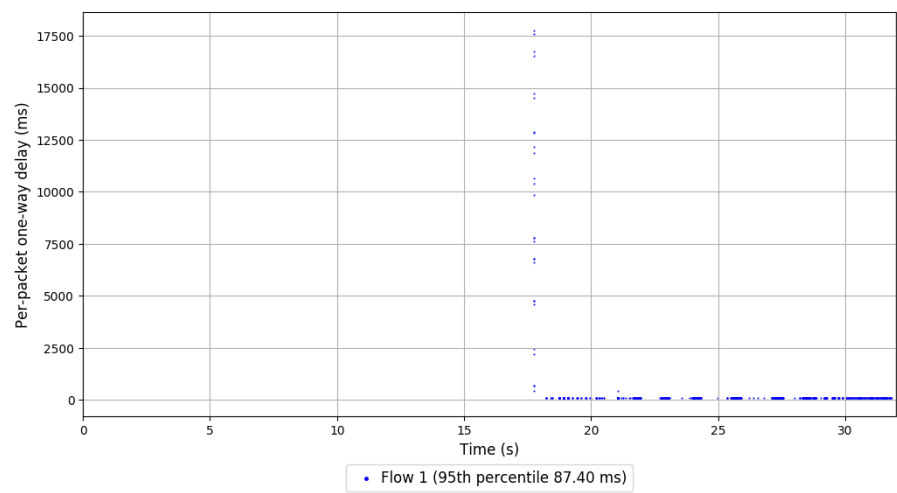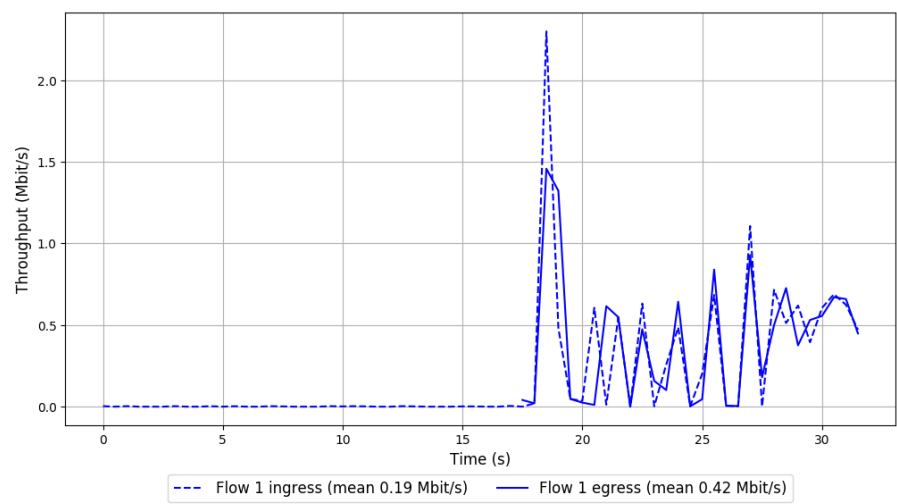
```
Run 10: Statistics of WebRTC media

Start at: 2017-12-05 12:36:47
End at: 2017-12-05 12:37:17
Local clock offset: 0.225 ms
Remote clock offset: -5.87 ms
```

Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2017-12-05 09:56:53
End at: 2017-12-05 09:57:23
Local clock offset: 1.199 ms
Remote clock offset: 3.522 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.75%
```
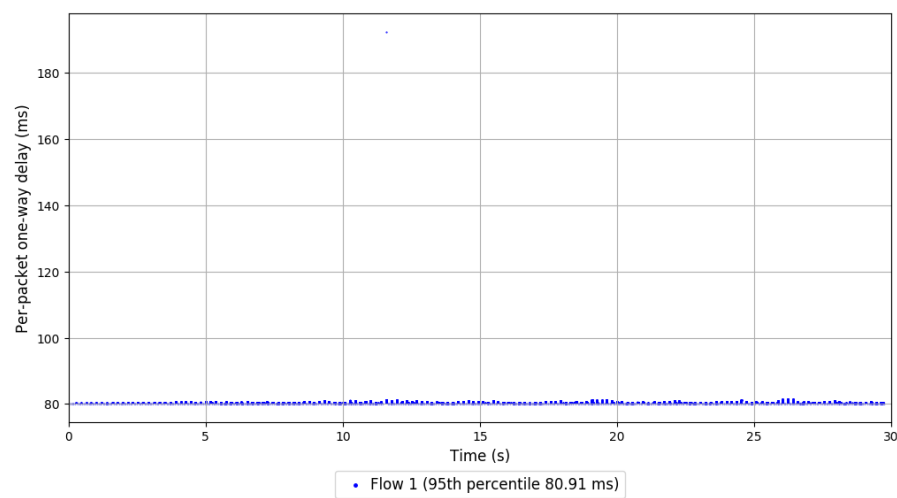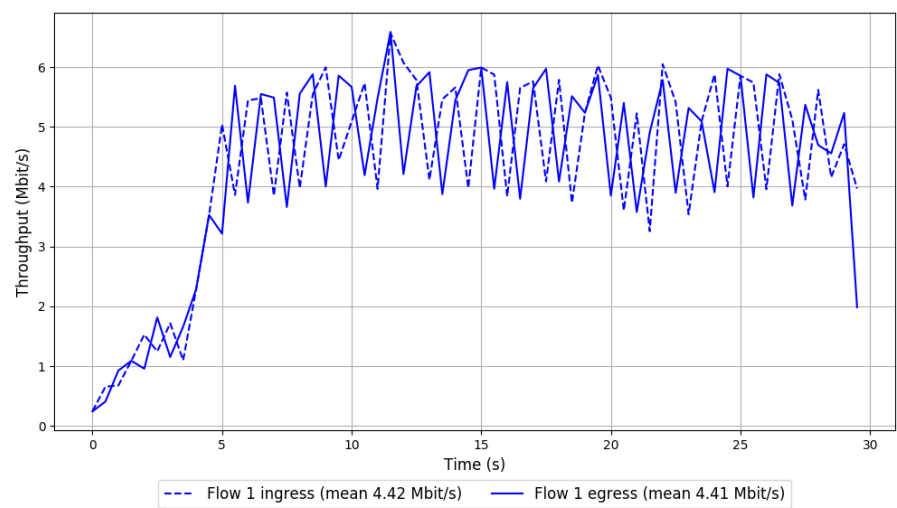
Run 1: Report of Sprout — Data Link
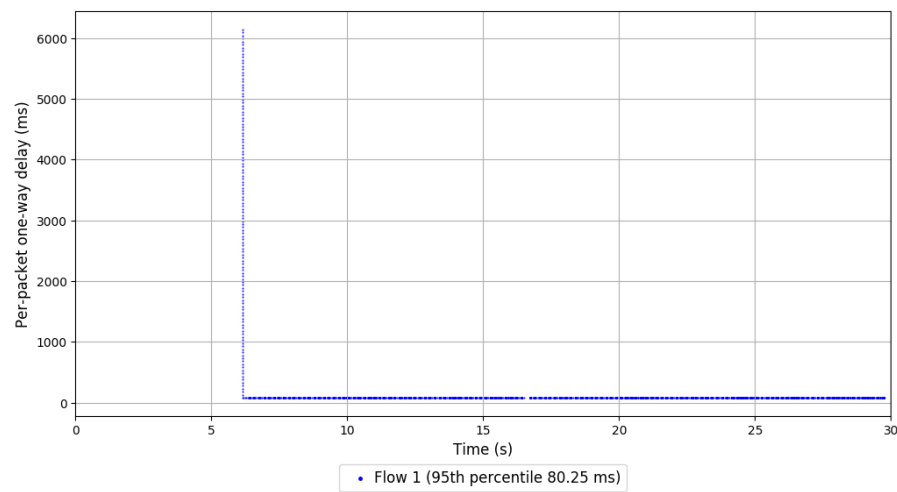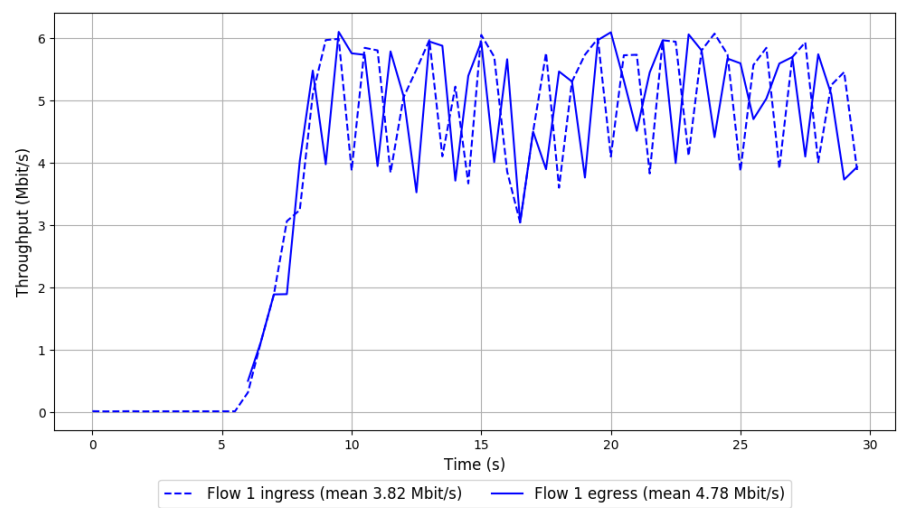
```
Run 2: Statistics of Sprout

Start at: 2017-12-05 10:15:00
End at: 2017-12-05 10:15:30
Local clock offset: 1.169 ms
Remote clock offset: 3.825 ms
```

Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 3.82 Mbit/s)   Flow 1 egress (mean 4.78 Mbit/s)
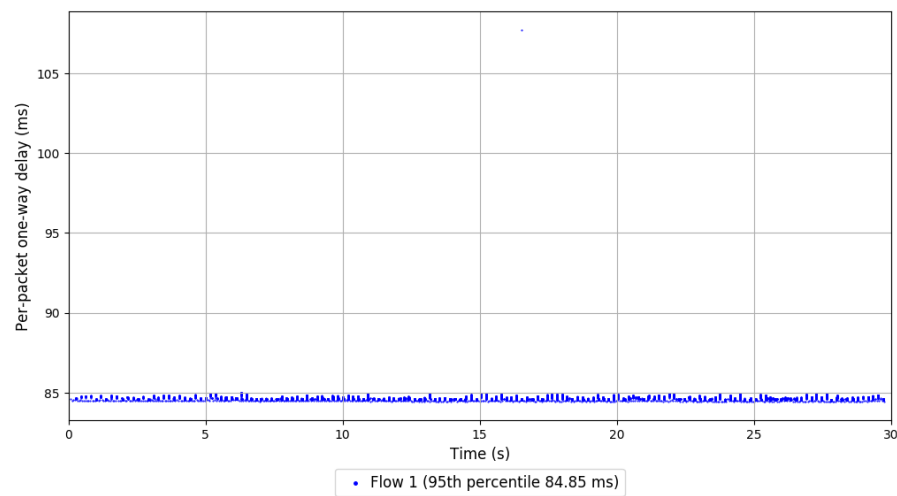

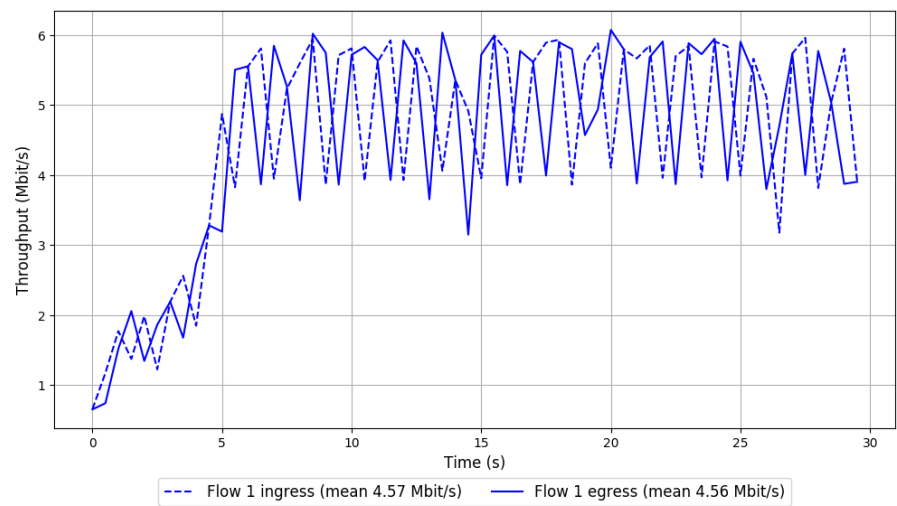Flow 1 (95th percentile 80.25 ms)

```
Run 3: Statistics of Sprout

Start at: 2017-12-05 10:33:01
End at: 2017-12-05 10:33:31
Local clock offset: 1.411 ms
Remote clock offset: -1.675 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 84.846 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 84.846 ms
Loss rate: 0.71%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 4.57 Mbit/s)   Flow 1 egress (mean 4.56 Mbit/s)

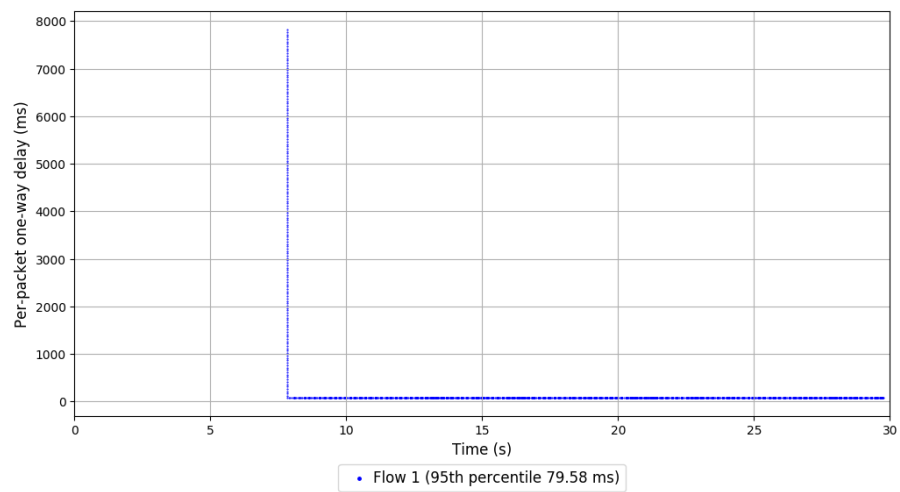Flow 1 (95th percentile 84.85 ms)
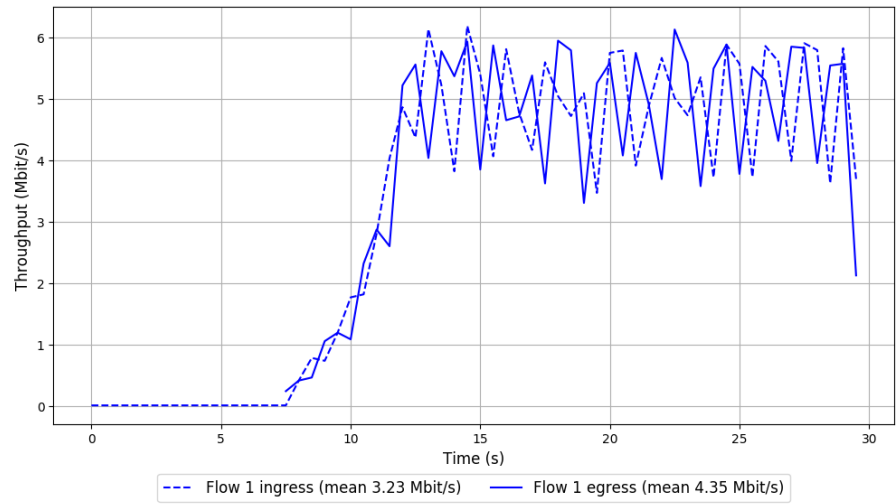
```
Run 4: Statistics of Sprout

Start at: 2017-12-05 10:51:04
End at: 2017-12-05 10:51:34
Local clock offset: 2.655 ms
Remote clock offset: 3.418 ms
```

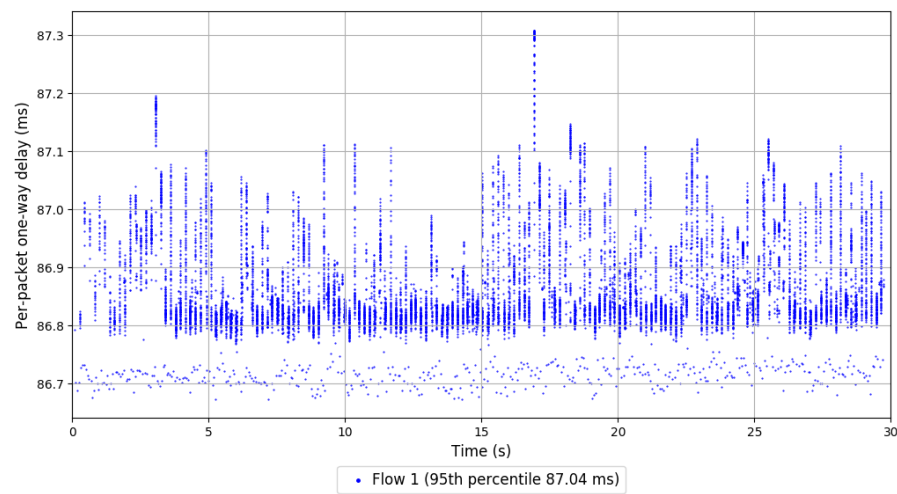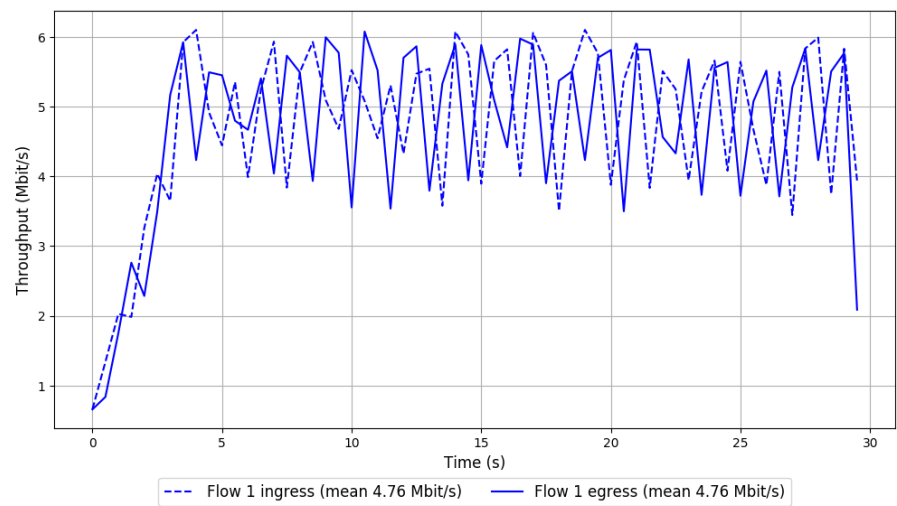## Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2017-12-05 11:08:51
End at: 2017-12-05 11:09:21
Local clock offset: 3.191 ms
Remote clock offset: -2.833 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 87.044 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 87.044 ms
Loss rate: 0.67%
```

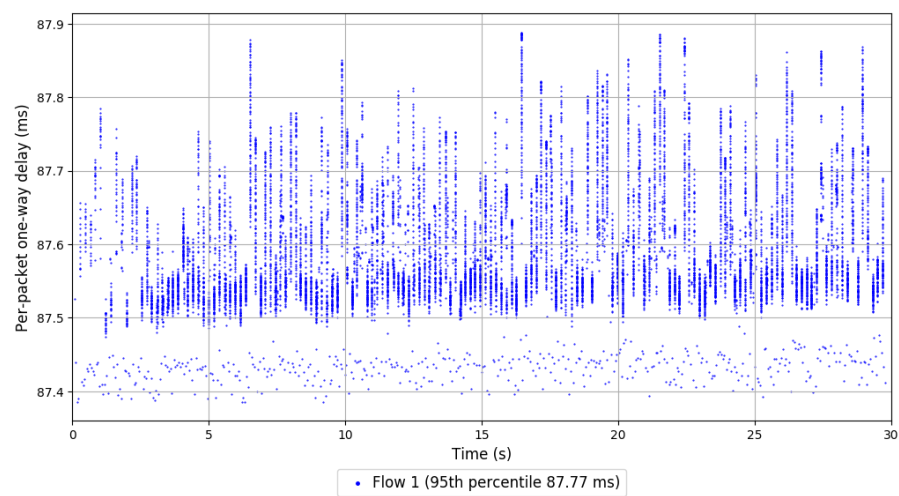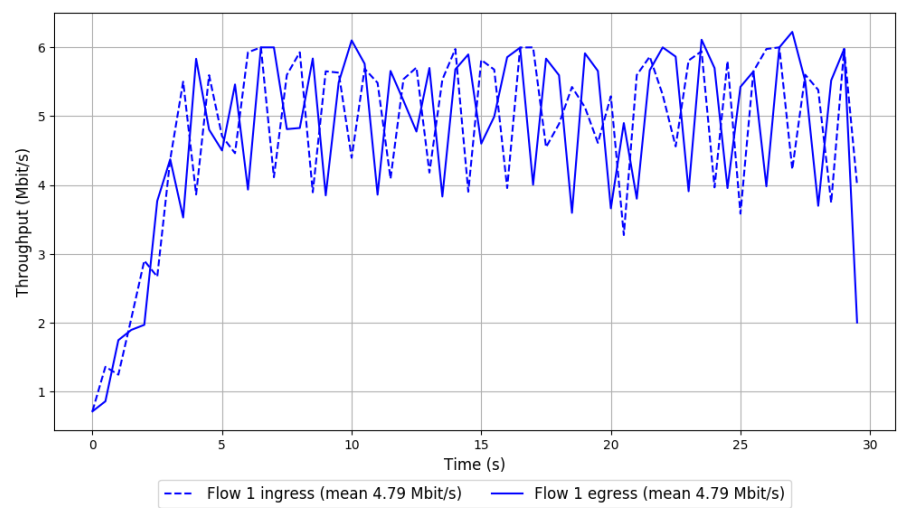# Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2017-12-05 11:27:08
End at: 2017-12-05 11:27:38
Local clock offset: 2.044 ms
Remote clock offset: -4.555 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 87.765 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 87.765 ms
Loss rate: 0.70%
```

Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2017-12-05 11:45:07
End at: 2017-12-05 11:45:37
Local clock offset: 1.401 ms
Remote clock offset: 1.083 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 82.159 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 82.159 ms
Loss rate: 0.70%
```
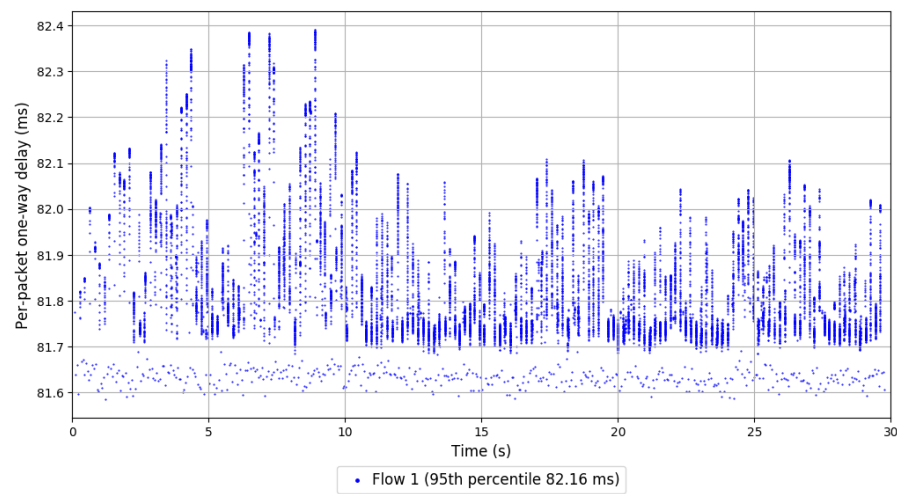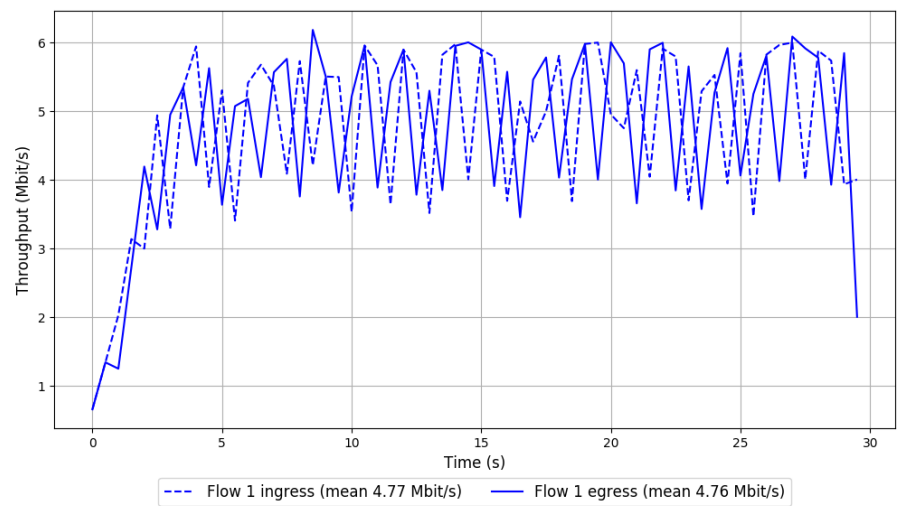
Run 7: Report of Sprout — Data Link
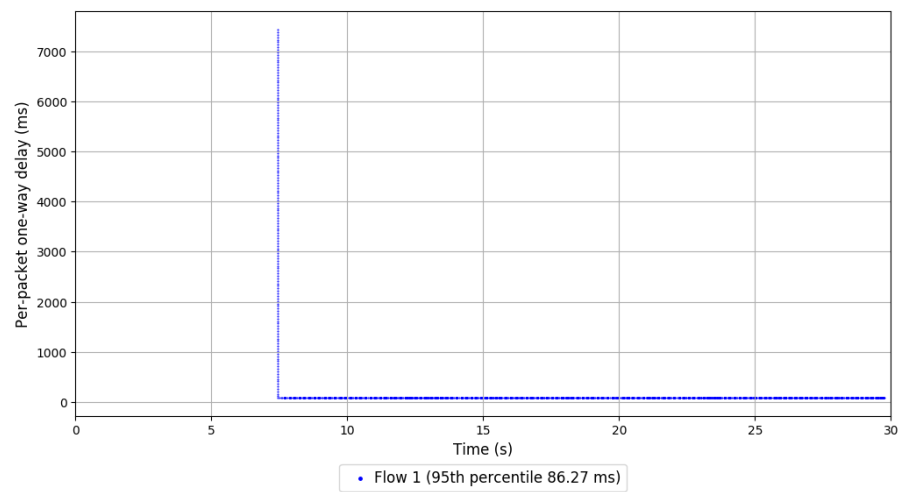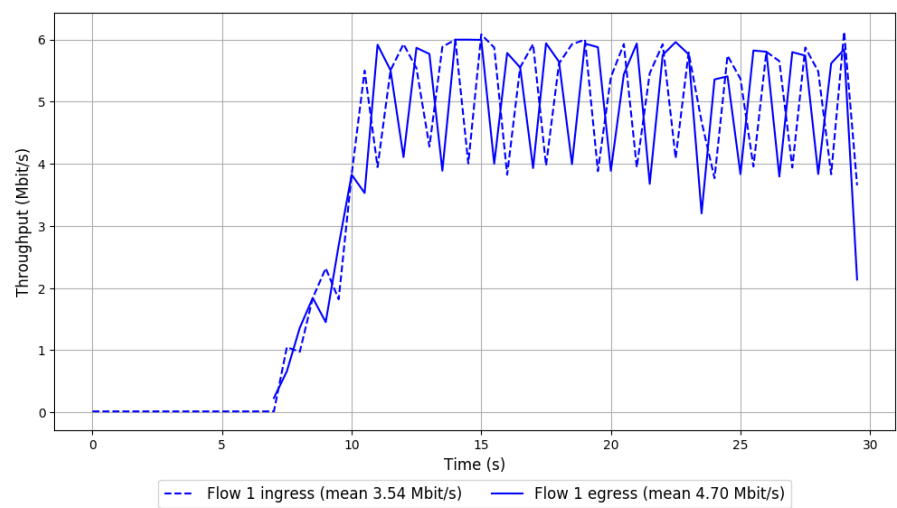
```
Run 8: Statistics of Sprout

Start at: 2017-12-05 12:03:07
End at: 2017-12-05 12:03:37
Local clock offset: 0.985 ms
Remote clock offset: -4.63 ms
```

Run 8: Report of Sprout — Data Link

Flow 1 ingress (mean 3.54 Mbit/s) --- Flow 1 egress (mean 4.70 Mbit/s)

Flow 1 (95th percentile 86.27 ms)
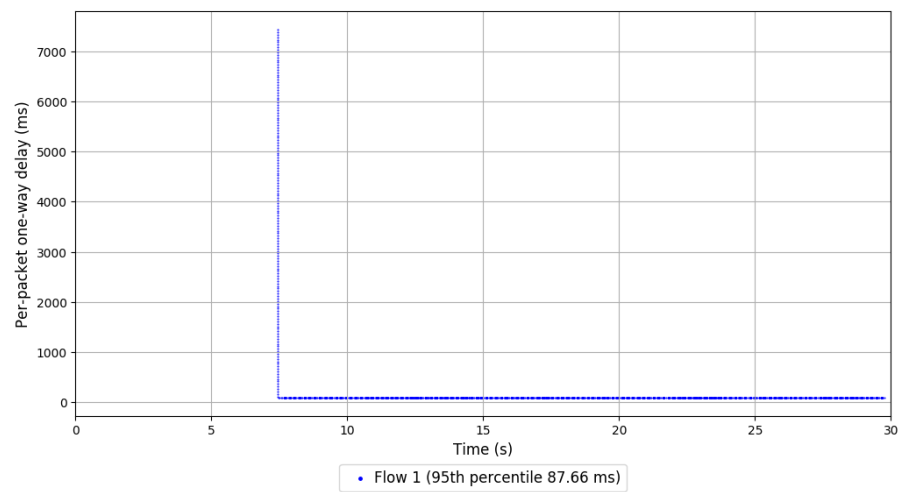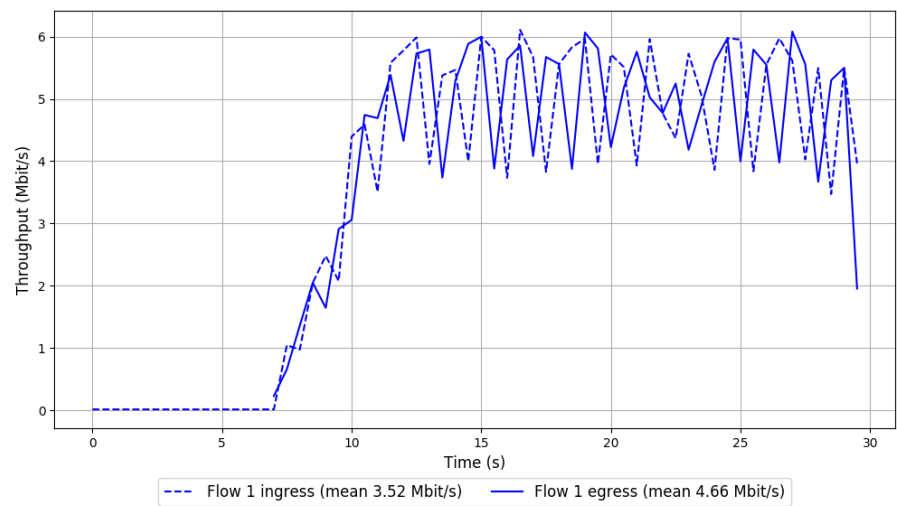
Run 9: Statistics of Sprout

Start at: 2017-12-05 12:20:54
End at: 2017-12-05 12:21:24
Local clock offset: 0.586 ms
Remote clock offset: -5.813 ms

Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 3.52 Mbit/s) — Flow 1 egress (mean 4.66 Mbit/s)

Flow 1 (95th percentile 87.66 ms)

```
Run 10: Statistics of Sprout

Start at: 2017-12-05 12:39:06
End at: 2017-12-05 12:39:36
Local clock offset: 0.185 ms
Remote clock offset: 0.179 ms


# Below is generated by plot.py at 2017-12-05 16:00:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 80.226 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 80.226 ms
Loss rate: 0.59%
```
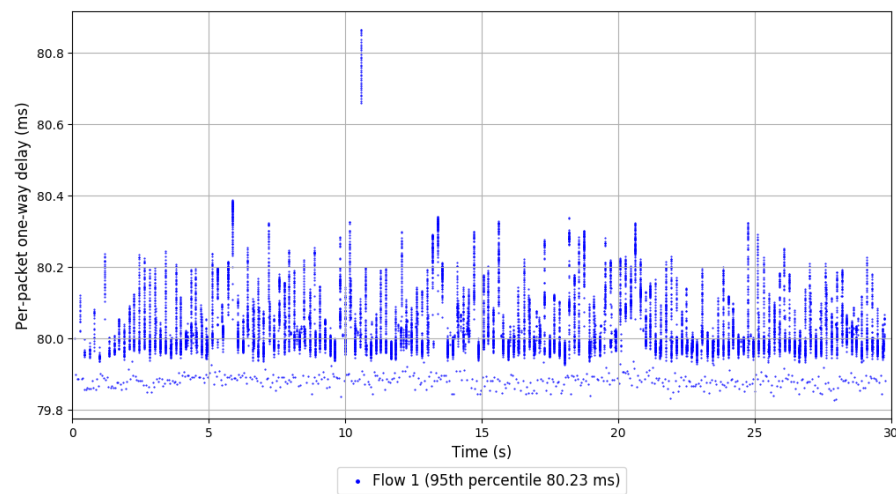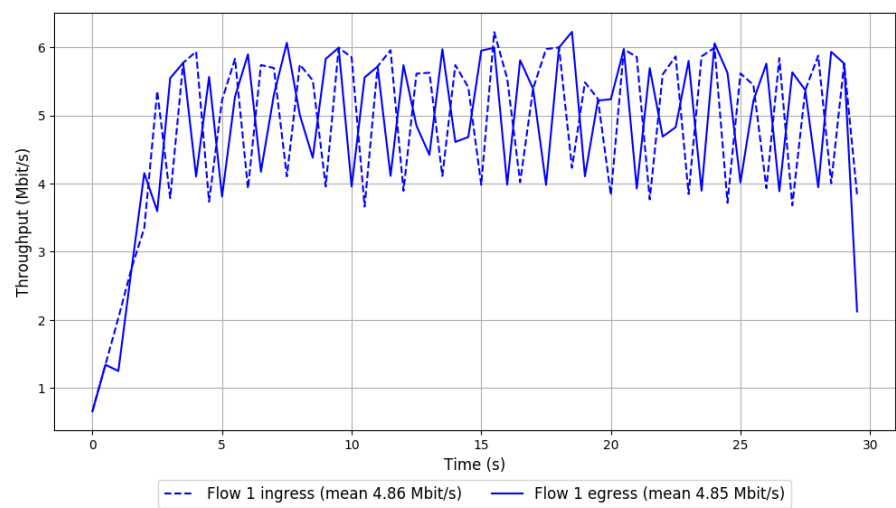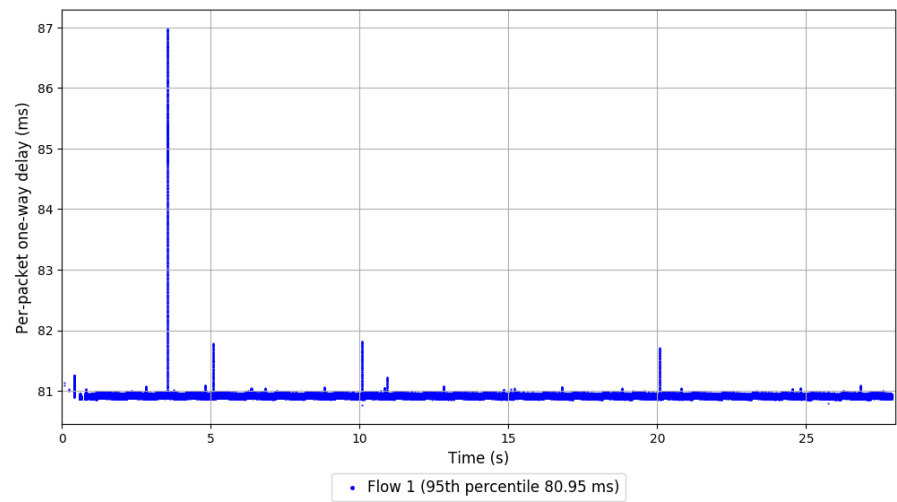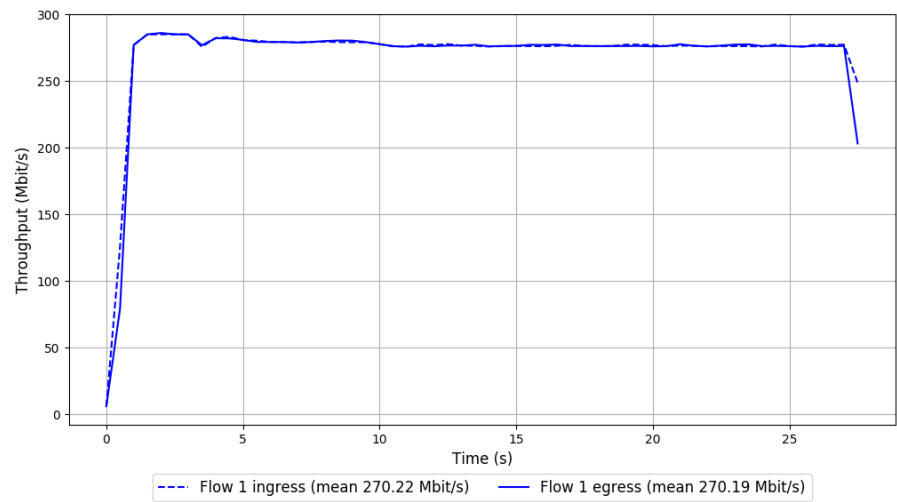
Run 10: Report of Sprout — Data Link

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

Start at: 2017-12-05 09:47:45
End at: 2017-12-05 09:48:15
Local clock offset: 1.164 ms
Remote clock offset: 3.62 ms


# Below is generated by plot.py at 2017-12-05 16:06:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 270.19 Mbit/s
95th percentile per-packet one-way delay: 80.947 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 270.19 Mbit/s
95th percentile per-packet one-way delay: 80.947 ms
Loss rate: 0.61%
```

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

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

Start at: 2017-12-05 10:05:45
End at: 2017-12-05 10:06:15
Local clock offset: 1.227 ms
Remote clock offset: 3.489 ms


# Below is generated by plot.py at 2017-12-05 16:06:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 271.43 Mbit/s
95th percentile per-packet one-way delay: 81.910 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 271.43 Mbit/s
95th percentile per-packet one-way delay: 81.910 ms
Loss rate: 0.60%
```
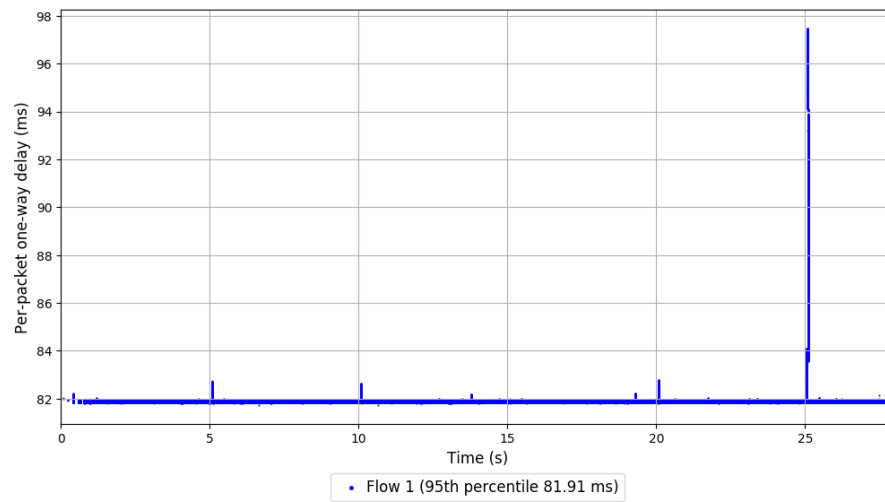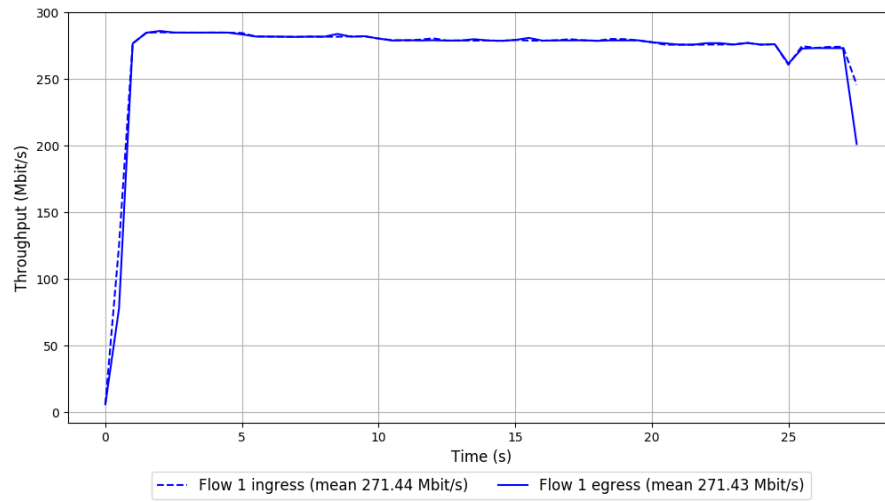
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 271.44 Mbit/s) Flow 1 egress (mean 271.43 Mbit/s)

• Flow 1 (95th percentile 81.91 ms)

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

Start at: 2017-12-05 10:23:58
End at: 2017-12-05 10:24:28
Local clock offset: 1.171 ms
Remote clock offset: -2.181 ms


# Below is generated by plot.py at 2017-12-05 16:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 84.570 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 84.570 ms
Loss rate: 0.59%
```
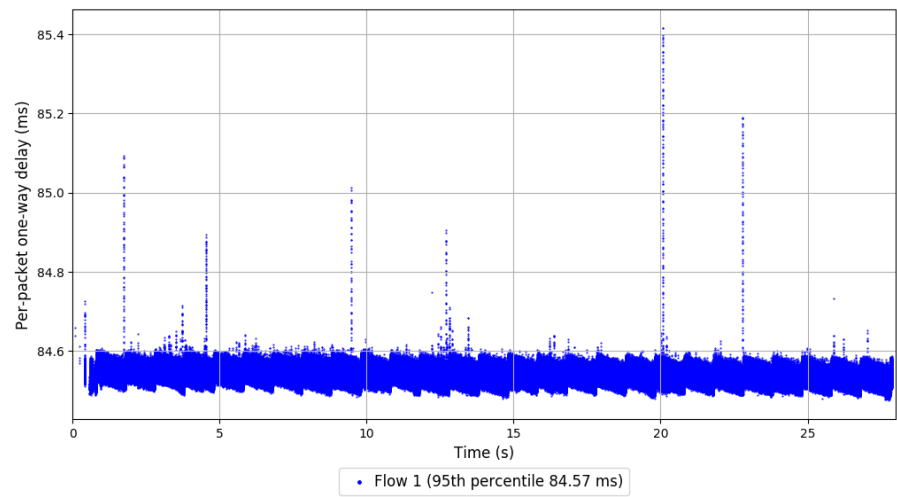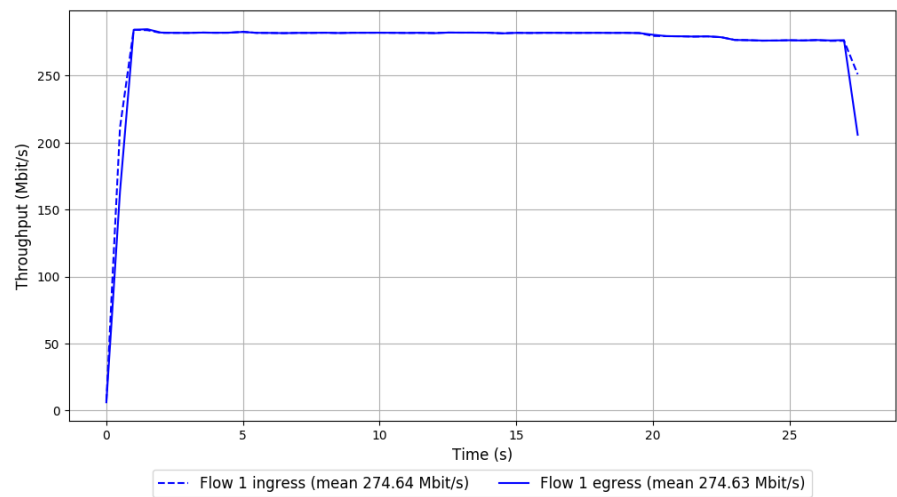
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2017-12-05 10:41:59
End at: 2017-12-05 10:42:30
Local clock offset: 2.1 ms
Remote clock offset: 2.88 ms


# Below is generated by plot.py at 2017-12-05 16:06:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 268.08 Mbit/s
95th percentile per-packet one-way delay: 81.458 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 268.08 Mbit/s
95th percentile per-packet one-way delay: 81.458 ms
Loss rate: 0.60%
```

Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2017-12-05 10:59:58
End at: 2017-12-05 11:00:28
Local clock offset: 3.152 ms
Remote clock offset: 2.564 ms


# Below is generated by plot.py at 2017-12-05 16:06:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 276.06 Mbit/s
95th percentile per-packet one-way delay: 81.648 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 276.06 Mbit/s
95th percentile per-packet one-way delay: 81.648 ms
Loss rate: 0.60%
```
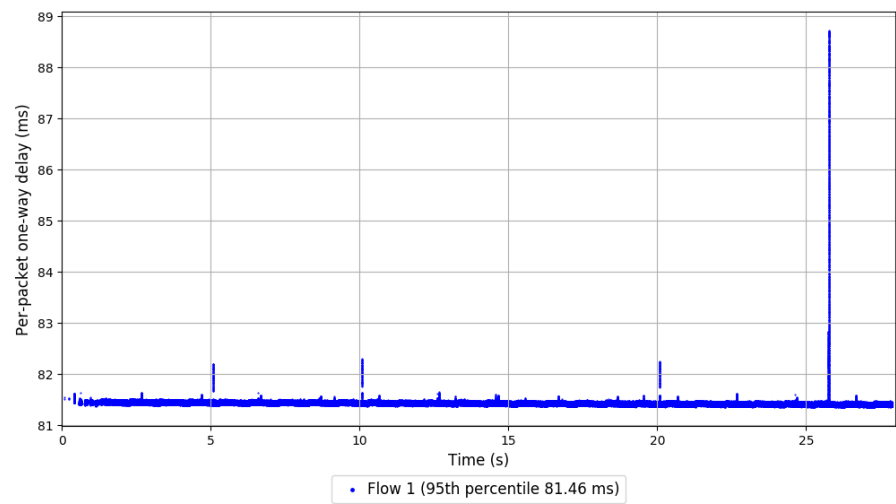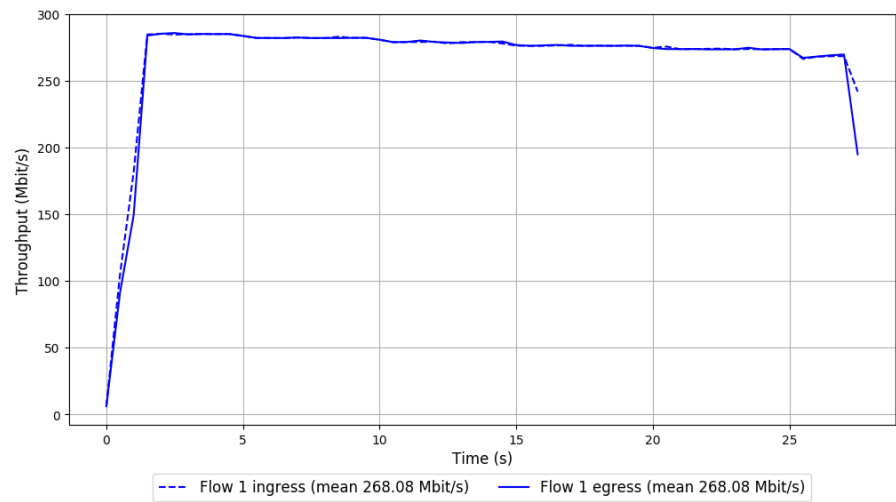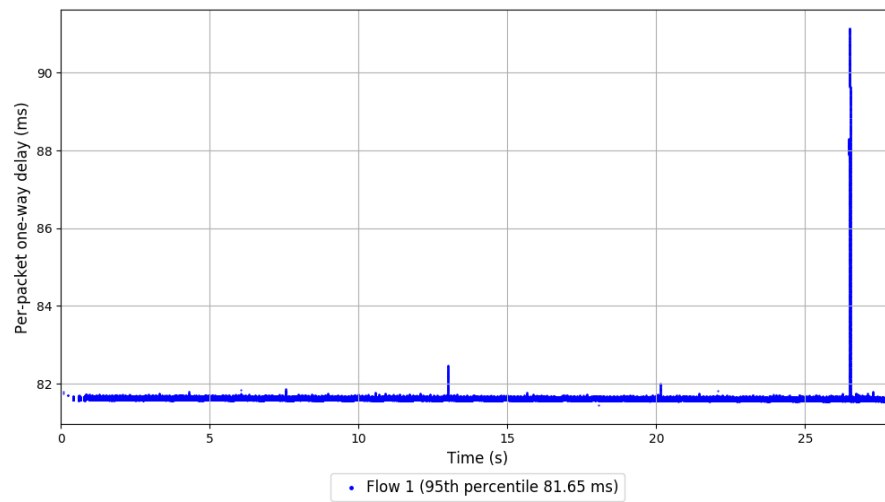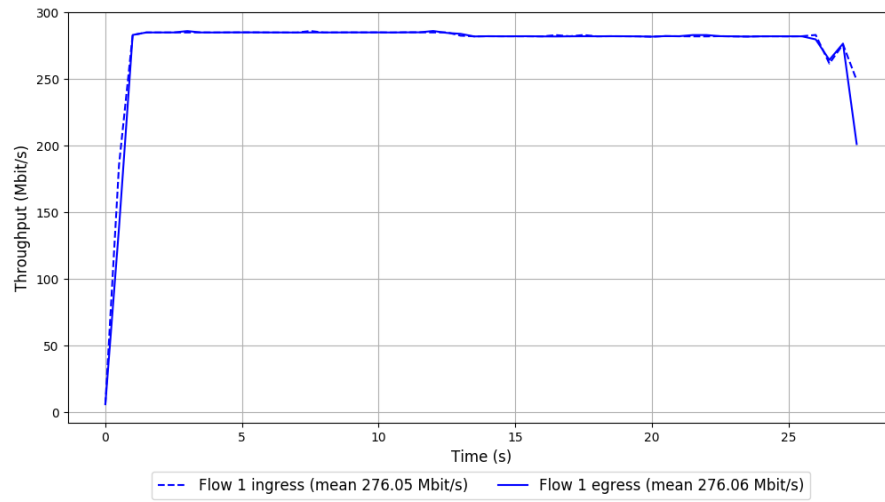
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 276.05 Mbit/s)   Flow 1 egress (mean 276.06 Mbit/s)

Flow 1 (95th percentile 81.65 ms)

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

Start at: 2017-12-05 11:17:48
End at: 2017-12-05 11:18:18
Local clock offset: 2.545 ms
Remote clock offset: 1.734 ms


# Below is generated by plot.py at 2017-12-05 16:06:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.74 Mbit/s
95th percentile per-packet one-way delay: 80.210 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 272.74 Mbit/s
95th percentile per-packet one-way delay: 80.210 ms
Loss rate: 0.58%
```
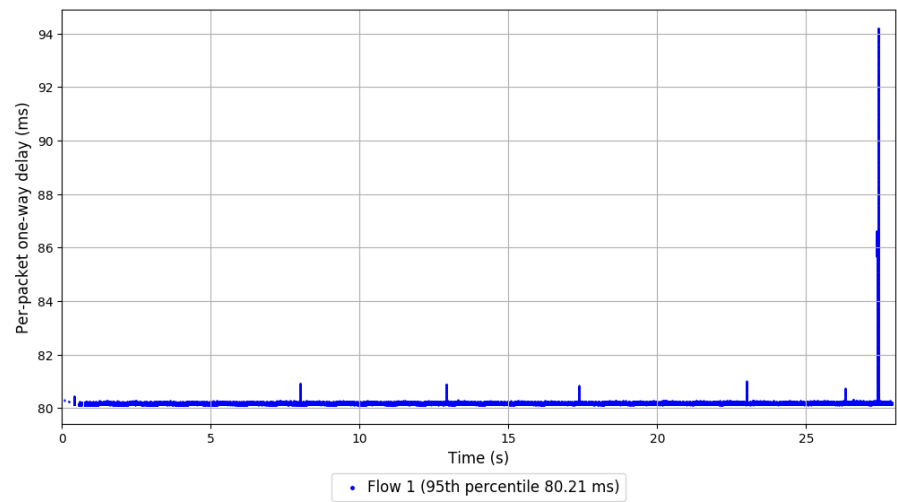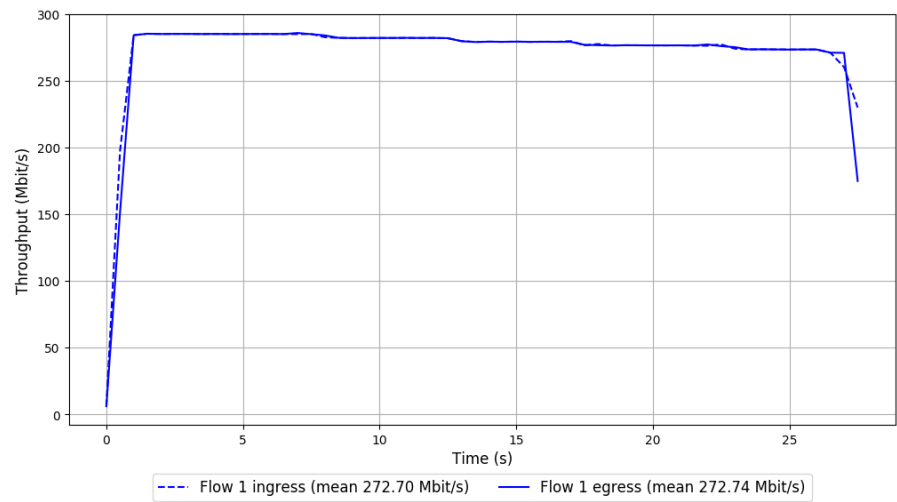
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 272.70 Mbit/s) Flow 1 egress (mean 272.74 Mbit/s)

Flow 1 (95th percentile 80.21 ms)

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

Start at: 2017-12-05 11:36:03
End at: 2017-12-05 11:36:33
Local clock offset: 1.684 ms
Remote clock offset: -3.459 ms


# Below is generated by plot.py at 2017-12-05 16:07:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 278.16 Mbit/s
95th percentile per-packet one-way delay: 83.995 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 278.16 Mbit/s
95th percentile per-packet one-way delay: 83.995 ms
Loss rate: 0.60%
```
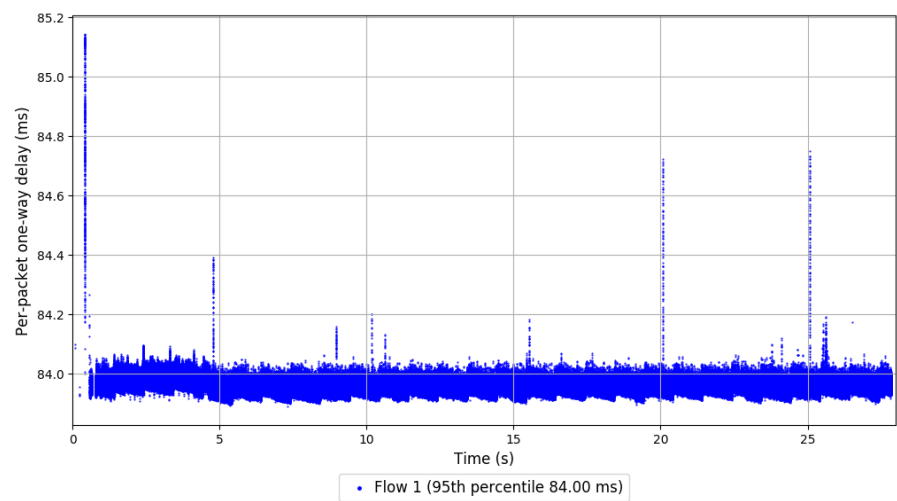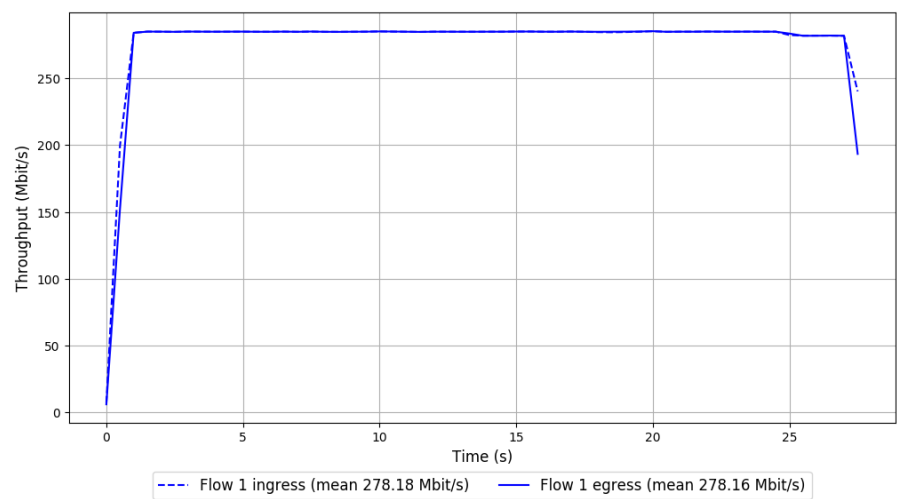
Run 7: Report of TaoVA-100x — Data Link

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

Start at: 2017-12-05 11:54:02
End at: 2017-12-05 11:54:32
Local clock offset: 1.13 ms
Remote clock offset: 0.848 ms


# Below is generated by plot.py at 2017-12-05 16:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.27 Mbit/s
95th percentile per-packet one-way delay: 80.237 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 273.27 Mbit/s
95th percentile per-packet one-way delay: 80.237 ms
Loss rate: 0.60%
```
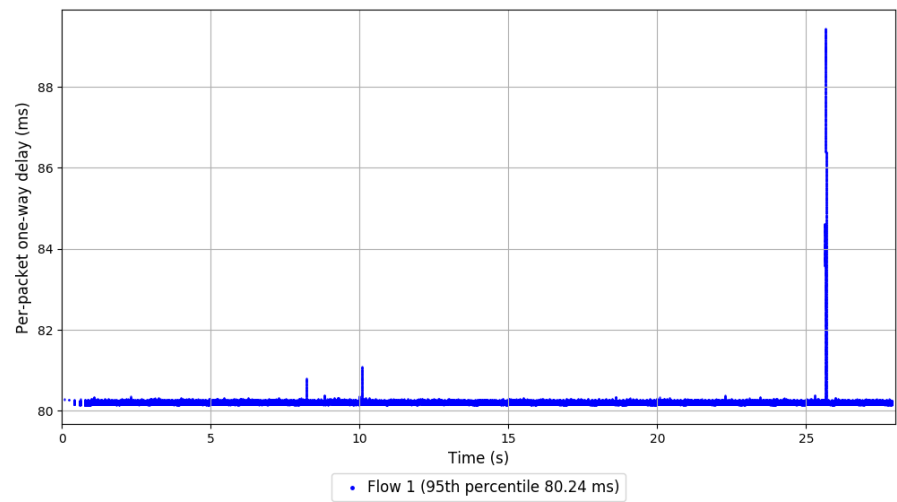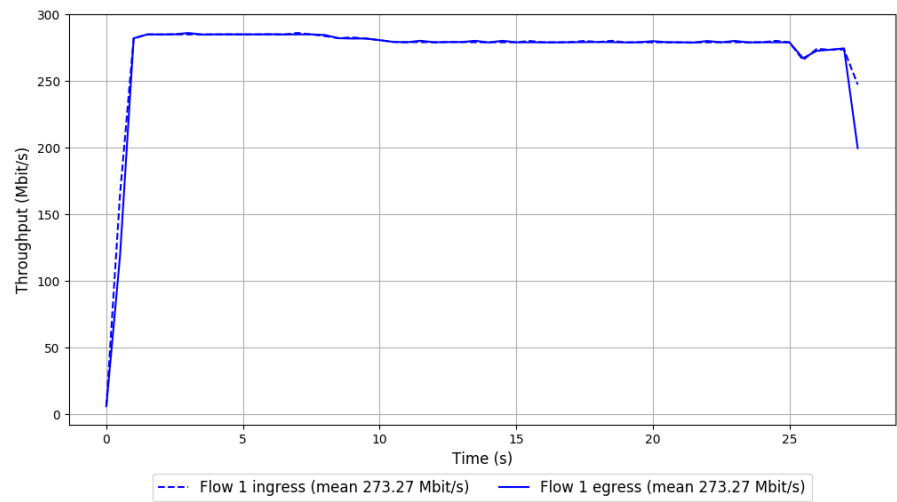
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 273.27 Mbit/s) — Flow 1 egress (mean 273.27 Mbit/s)

Flow 1 (95th percentile 80.24 ms)

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

Start at: 2017-12-05 12:12:04
End at: 2017-12-05 12:12:34
Local clock offset: 0.736 ms
Remote clock offset: -5.52 ms


# Below is generated by plot.py at 2017-12-05 16:12:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 271.29 Mbit/s
95th percentile per-packet one-way delay: 87.609 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 271.29 Mbit/s
95th percentile per-packet one-way delay: 87.609 ms
Loss rate: 0.59%
```
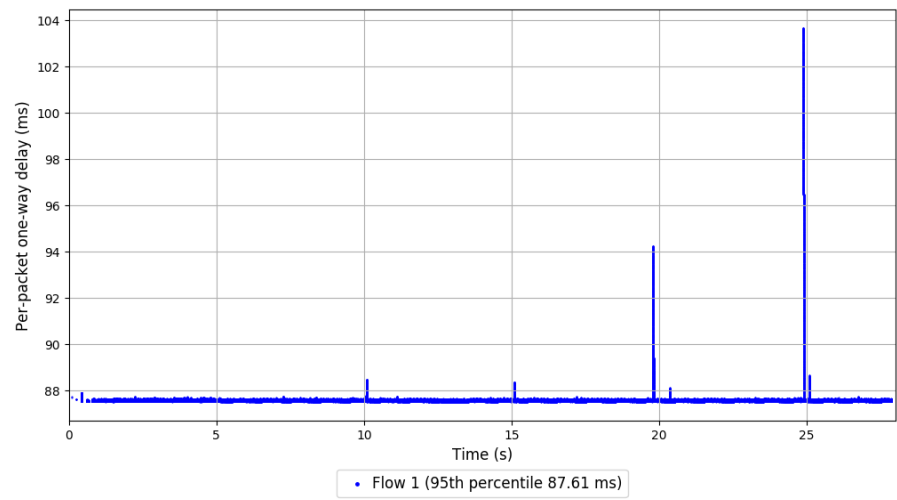
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 271.27 Mbit/s)   Flow 1 egress (mean 271.29 Mbit/s)

Flow 1 (95th percentile 87.61 ms)

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

Start at: 2017-12-05 12:29:47
End at: 2017-12-05 12:30:17
Local clock offset: 0.375 ms
Remote clock offset: -6.462 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.26 Mbit/s
95th percentile per-packet one-way delay: 86.939 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 272.26 Mbit/s
95th percentile per-packet one-way delay: 86.939 ms
Loss rate: 0.59%
```
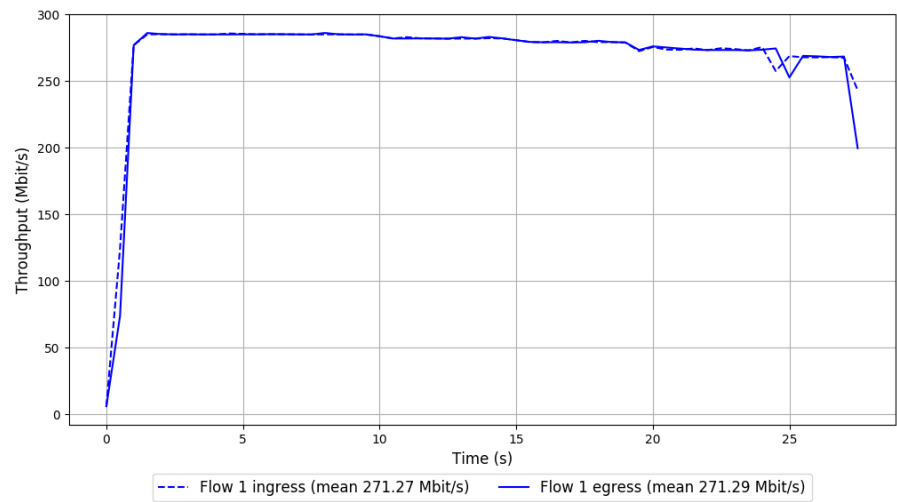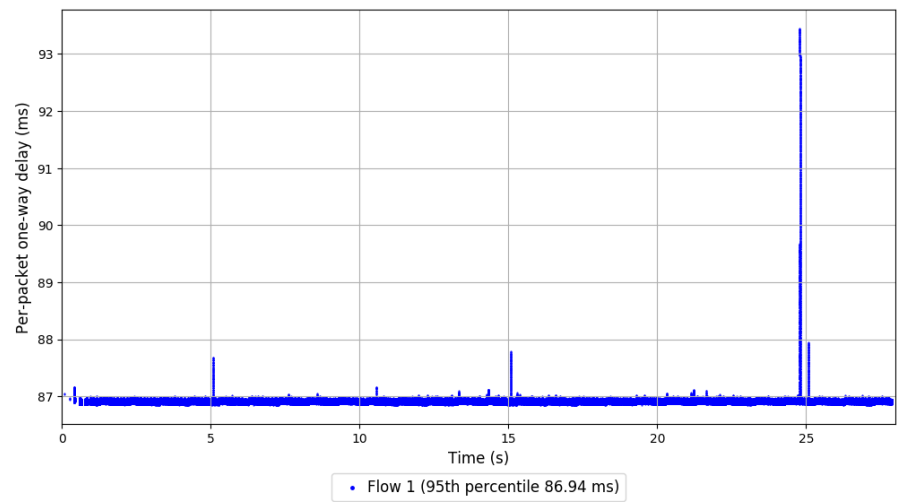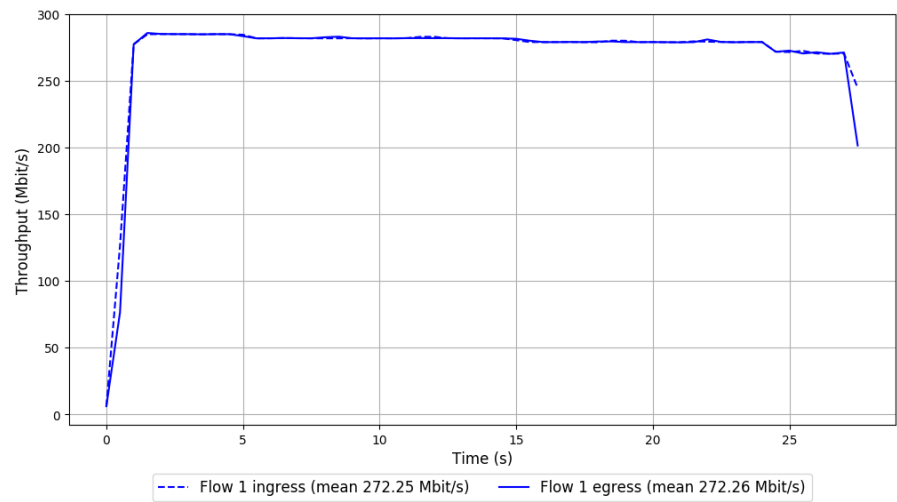
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 272.25 Mbit/s)   Flow 1 egress (mean 272.26 Mbit/s)

Flow 1 (95th percentile 86.94 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2017-12-05 09:51:46
End at: 2017-12-05 09:52:16
Local clock offset: 1.169 ms
Remote clock offset: 3.474 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.30 Mbit/s
95th percentile per-packet one-way delay: 79.645 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 83.30 Mbit/s
95th percentile per-packet one-way delay: 79.645 ms
Loss rate: 0.62%
```
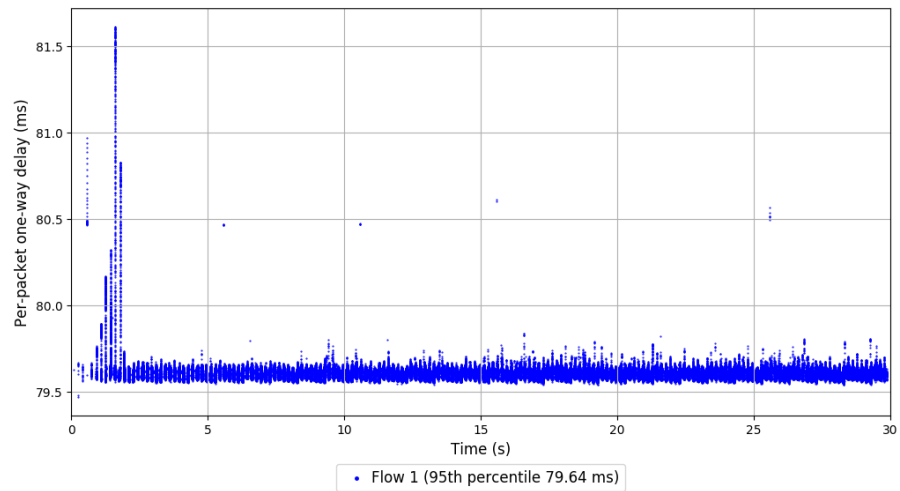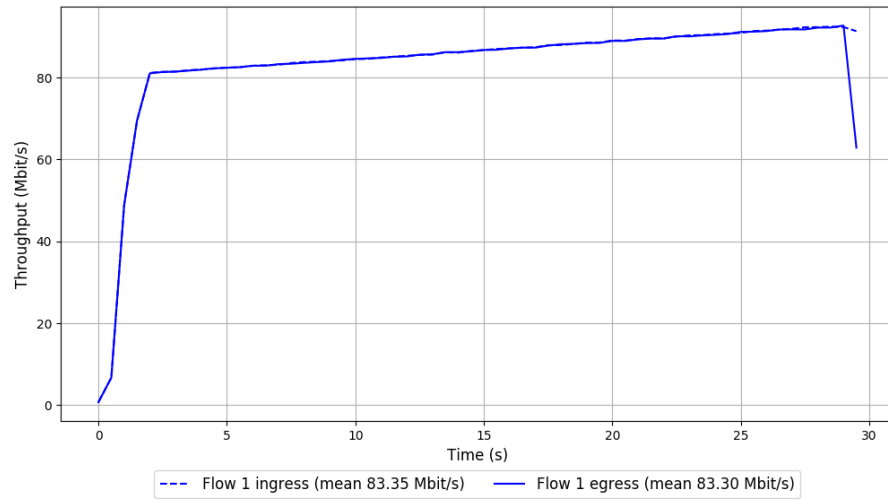
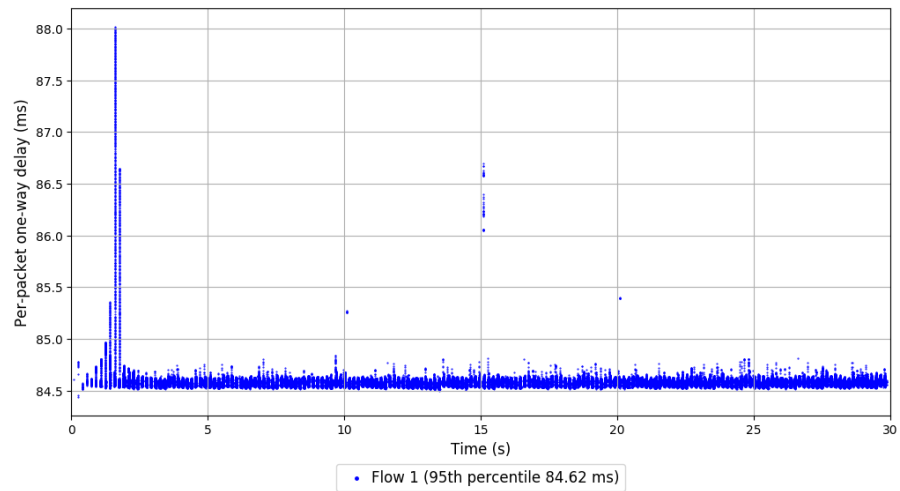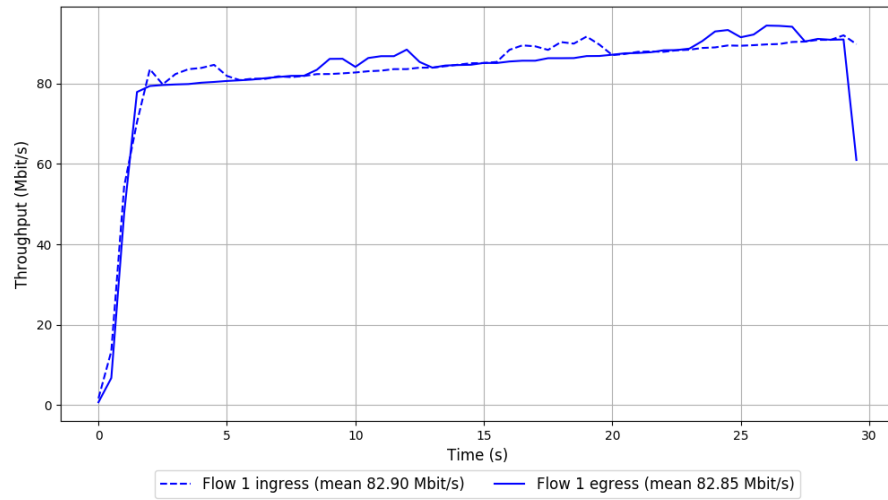Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-12-05 10:09:59
End at: 2017-12-05 10:10:29
Local clock offset: 1.14 ms
Remote clock offset: -1.846 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 84.619 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 84.619 ms
Loss rate: 0.61%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 82.90 Mbit/s) ----- Flow 1 egress (mean 82.85 Mbit/s) ——
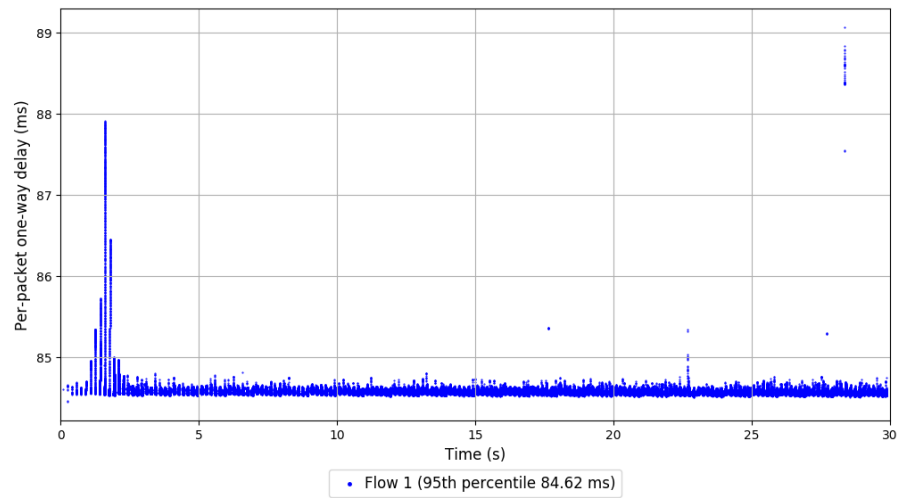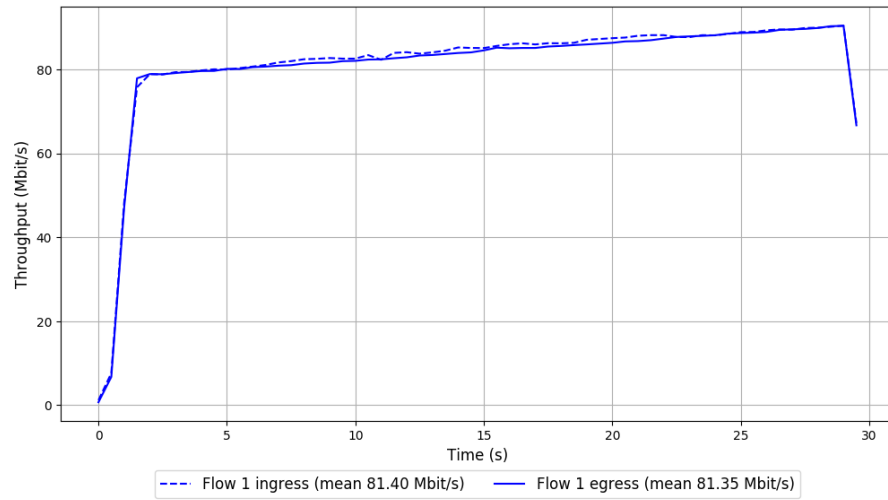

Flow 1 (95th percentile 84.62 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2017-12-05 10:28:02
End at: 2017-12-05 10:28:32
Local clock offset: 1.198 ms
Remote clock offset: -1.235 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.35 Mbit/s
95th percentile per-packet one-way delay: 84.618 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 81.35 Mbit/s
95th percentile per-packet one-way delay: 84.618 ms
Loss rate: 0.62%
```

Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2017-12-05 10:46:06
End at: 2017-12-05 10:46:36
Local clock offset: 2.381 ms
Remote clock offset: 3.863 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.89 Mbit/s
95th percentile per-packet one-way delay: 80.384 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 79.89 Mbit/s
95th percentile per-packet one-way delay: 80.384 ms
Loss rate: 0.63%
```
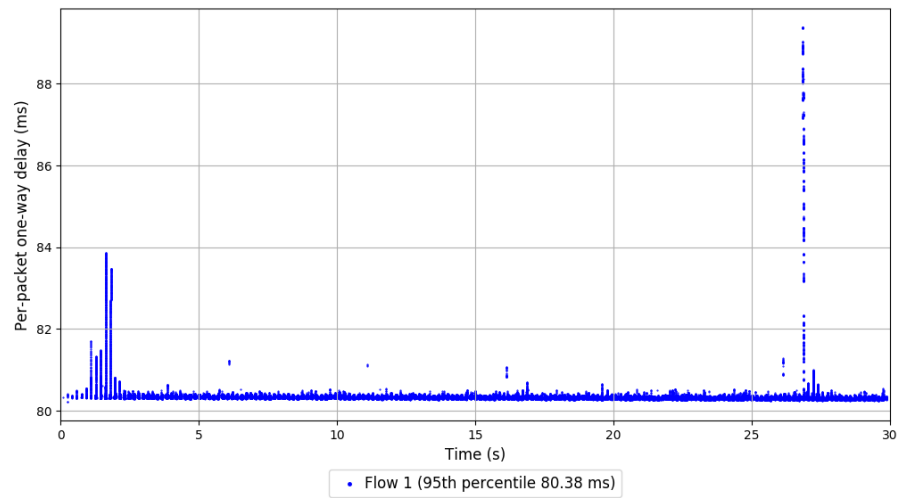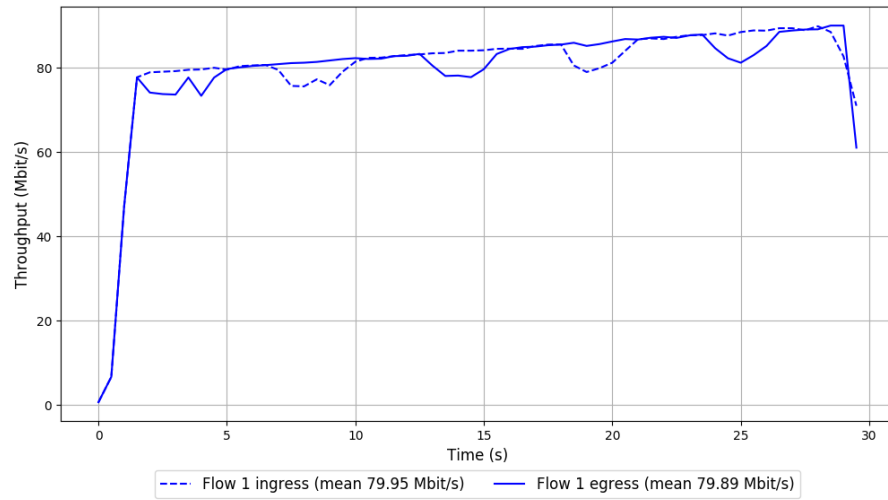
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 79.95 Mbit/s)   Flow 1 egress (mean 79.89 Mbit/s)

Flow 1 (95th percentile 80.38 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2017-12-05 11:03:48
End at: 2017-12-05 11:04:18
Local clock offset: 3.238 ms
Remote clock offset: 3.29 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.32 Mbit/s
95th percentile per-packet one-way delay: 79.646 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 80.32 Mbit/s
95th percentile per-packet one-way delay: 79.646 ms
Loss rate: 0.62%
```
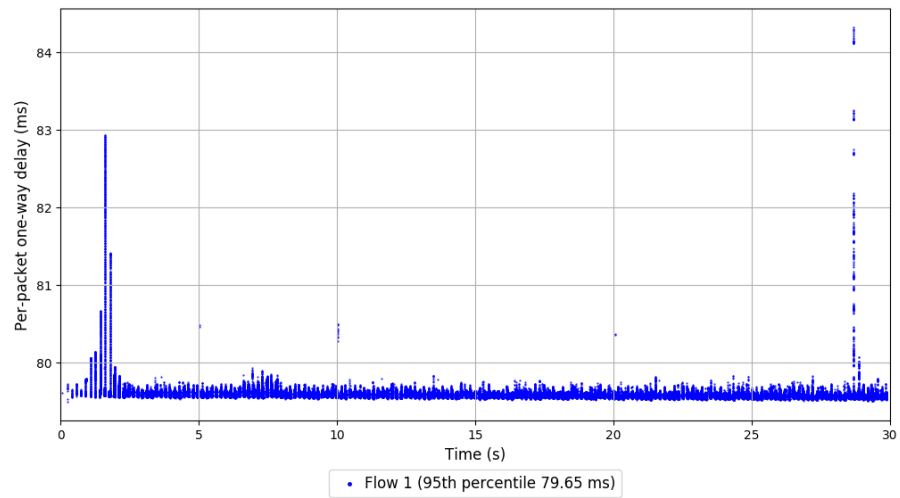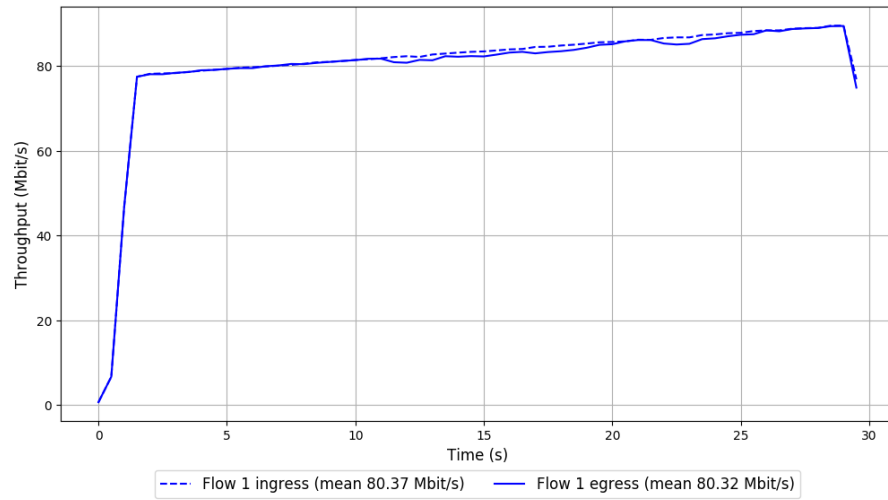
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2017-12-05 11:21:58
End at: 2017-12-05 11:22:28
Local clock offset: 2.376 ms
Remote clock offset: 1.246 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.51 Mbit/s
95th percentile per-packet one-way delay: 79.574 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 79.51 Mbit/s
95th percentile per-packet one-way delay: 79.574 ms
Loss rate: 0.60%
```
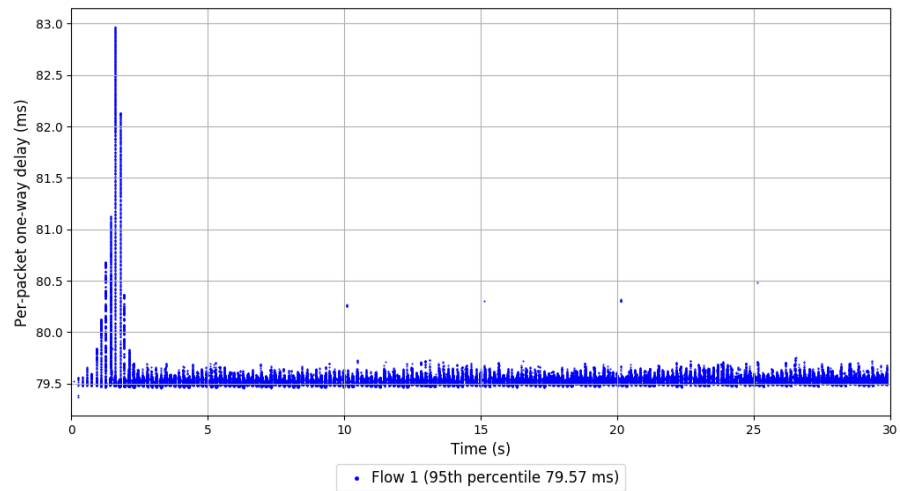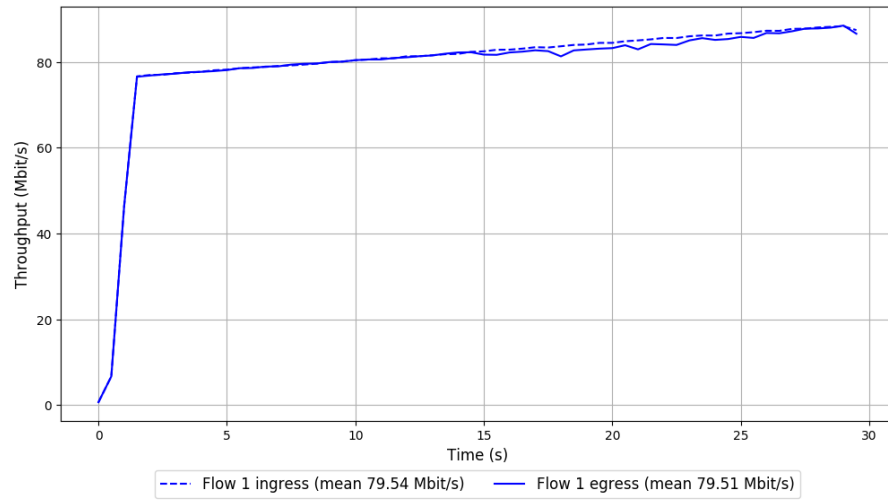
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2017-12-05 11:40:05
End at: 2017-12-05 11:40:35
Local clock offset: 1.494 ms
Remote clock offset: 1.244 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.19 Mbit/s
95th percentile per-packet one-way delay: 79.868 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 81.19 Mbit/s
95th percentile per-packet one-way delay: 79.868 ms
Loss rate: 0.62%
```
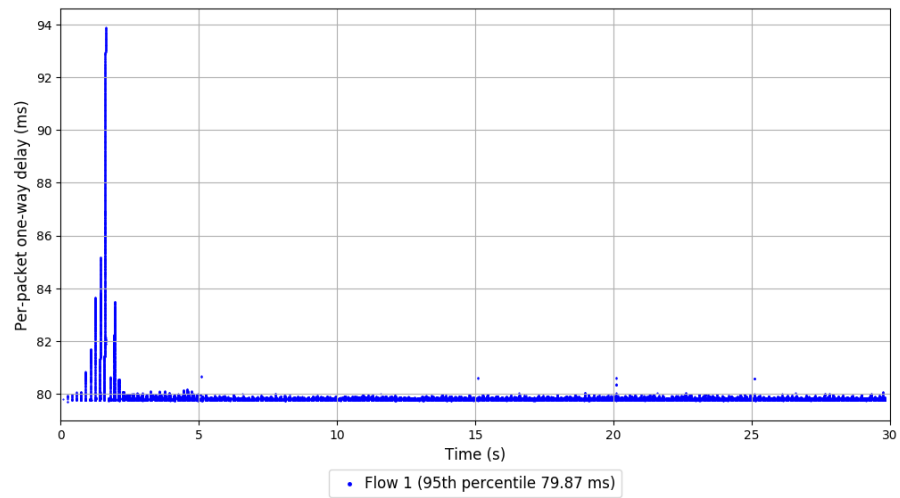
Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 81.24 Mbit/s) --- Flow 1 egress (mean 81.19 Mbit/s)

• Flow 1 (95th percentile 79.87 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2017-12-05 11:58:06
End at: 2017-12-05 11:58:36
Local clock offset: 1.079 ms
Remote clock offset: 0.787 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.12 Mbit/s
95th percentile per-packet one-way delay: 79.790 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 81.12 Mbit/s
95th percentile per-packet one-way delay: 79.790 ms
Loss rate: 0.62%
```
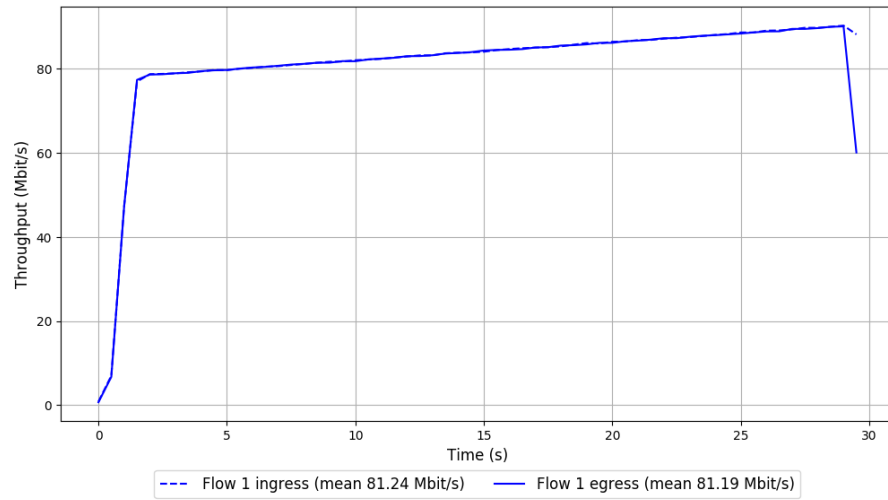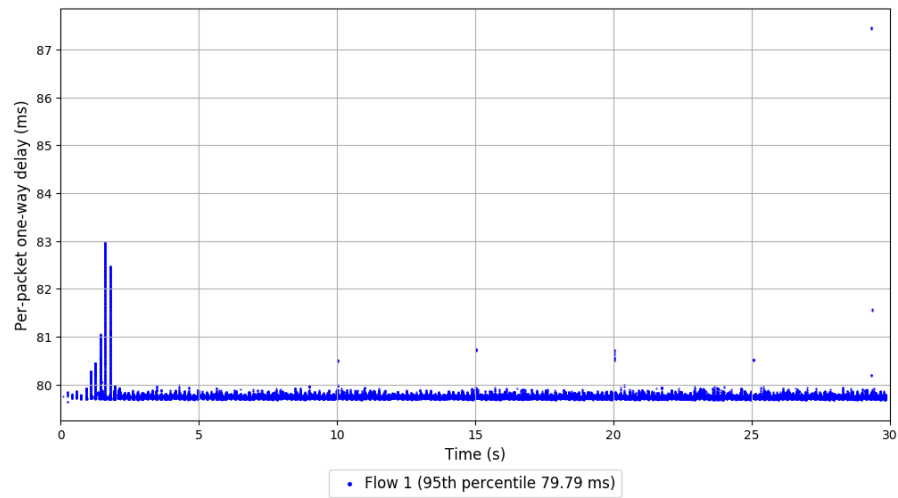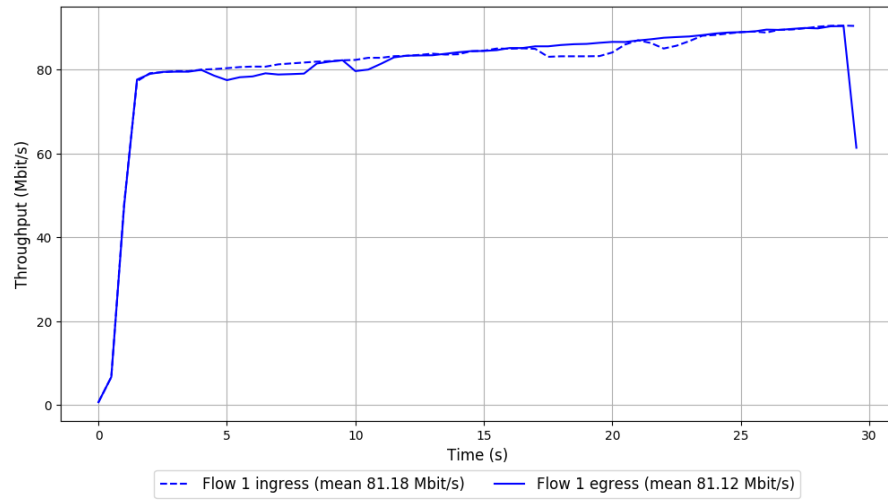
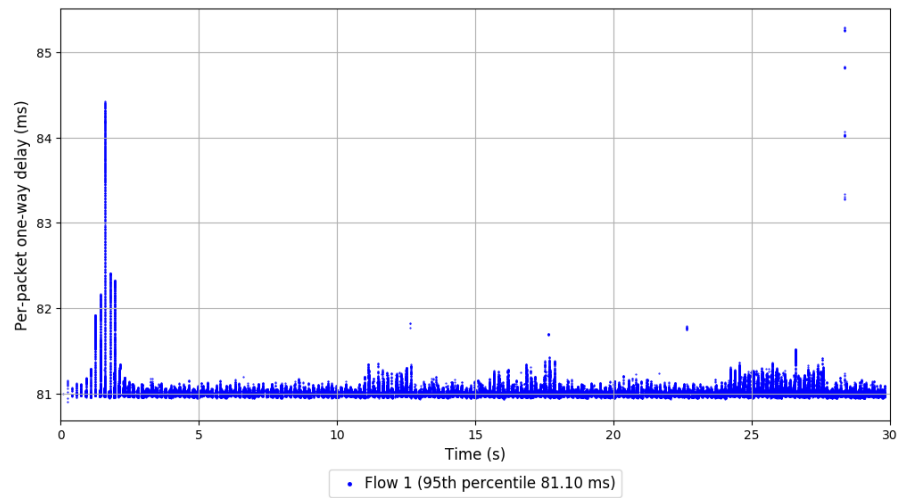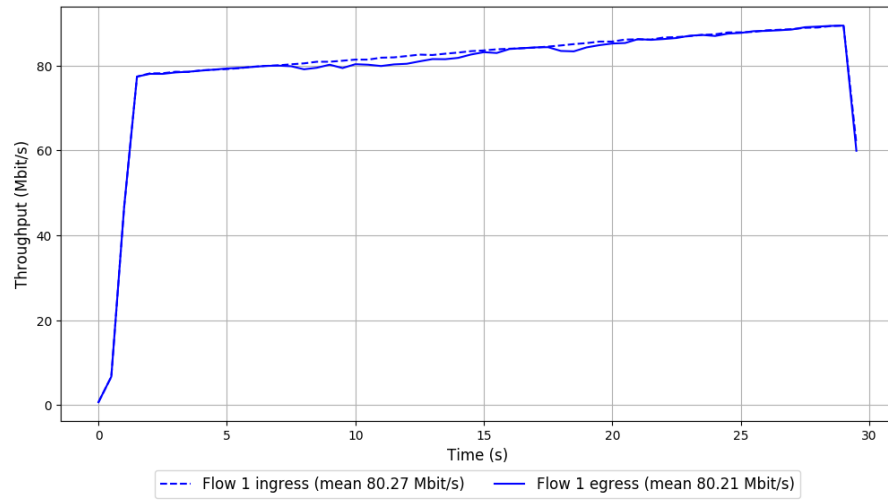## Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2017-12-05 12:15:53
End at: 2017-12-05 12:16:23
Local clock offset: 0.626 ms
Remote clock offset: -1.181 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 81.104 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 81.104 ms
Loss rate: 0.63%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2017-12-05 12:33:59
End at: 2017-12-05 12:34:29
Local clock offset: 0.3 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.83 Mbit/s
95th percentile per-packet one-way delay: 80.115 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 79.83 Mbit/s
95th percentile per-packet one-way delay: 80.115 ms
Loss rate: 0.62%
```
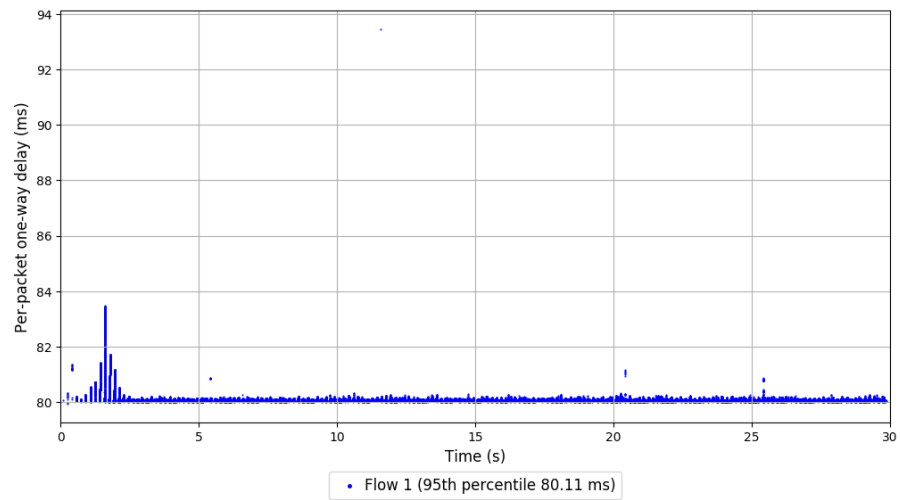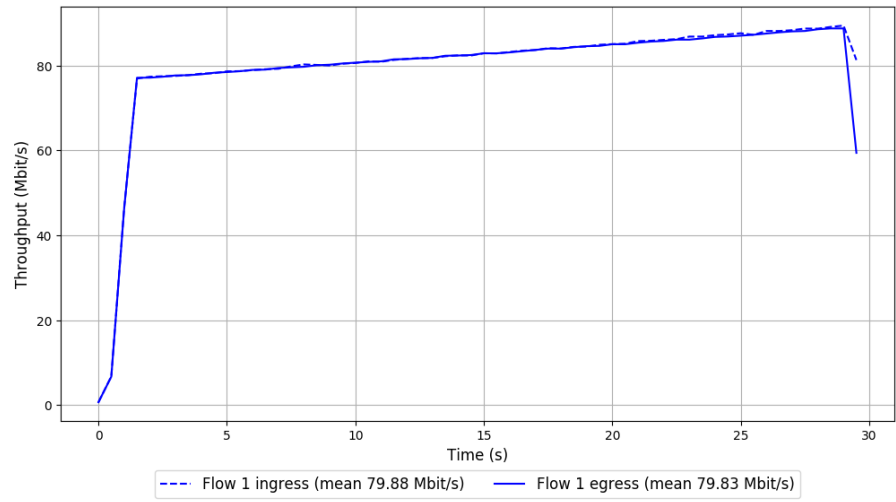
Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 79.88 Mbit/s)   Flow 1 egress (mean 79.83 Mbit/s)

Flow 1 (95th percentile 80.11 ms)

```
Run 1: Statistics of Verus

Start at: 2017-12-05 09:53:00
End at: 2017-12-05 09:53:30
Local clock offset: 1.124 ms
Remote clock offset: 3.044 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 297.21 Mbit/s
95th percentile per-packet one-way delay: 100.727 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 297.21 Mbit/s
95th percentile per-packet one-way delay: 100.727 ms
Loss rate: 1.23%
```
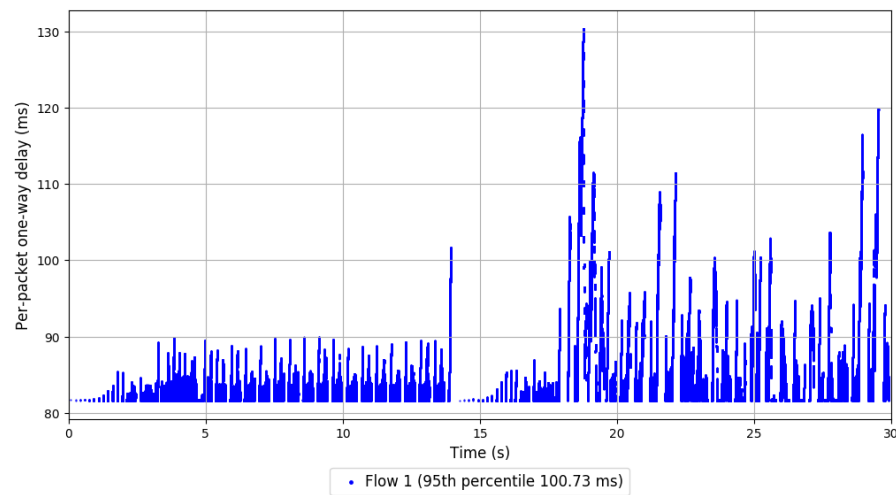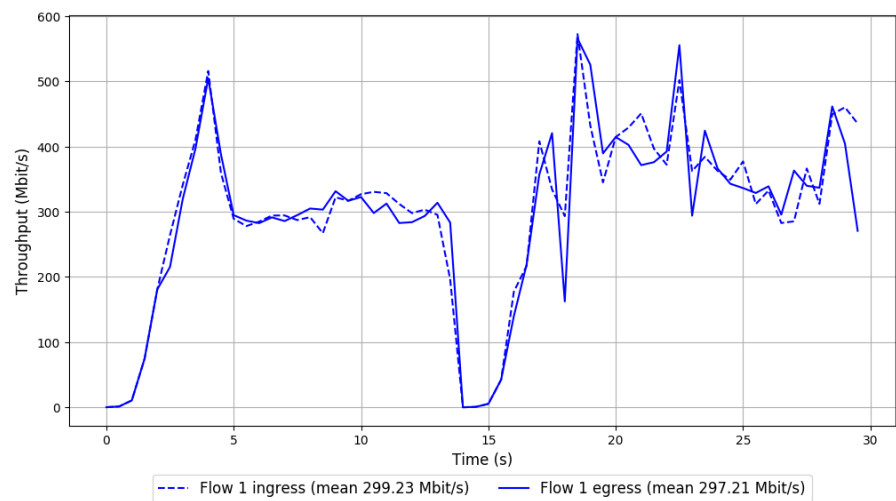
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 299.23 Mbit/s) — Flow 1 egress (mean 297.21 Mbit/s)

Flow 1 (95th percentile 100.73 ms)

```
Run 2: Statistics of Verus

Start at: 2017-12-05 10:11:13
End at: 2017-12-05 10:11:43
Local clock offset: 1.189 ms
Remote clock offset: -1.89 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.72 Mbit/s
95th percentile per-packet one-way delay: 104.654 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 221.72 Mbit/s
95th percentile per-packet one-way delay: 104.654 ms
Loss rate: 2.83%
```
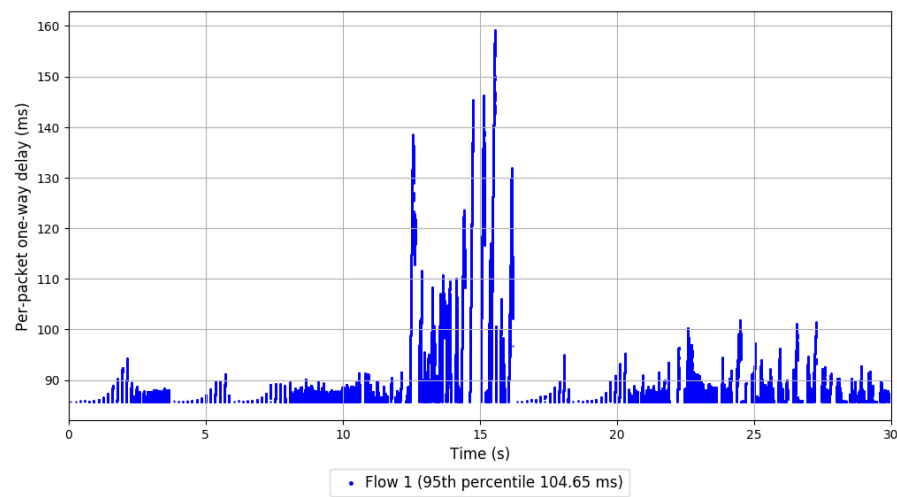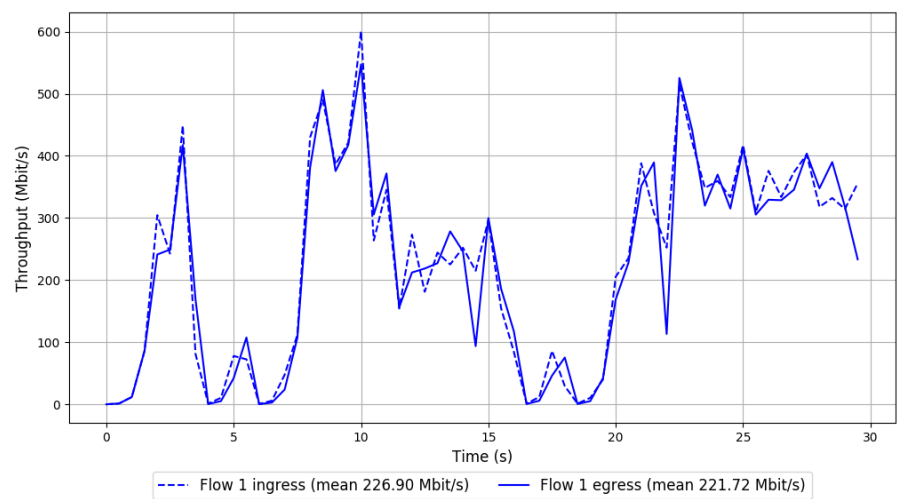
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 226.90 Mbit/s)   Flow 1 egress (mean 221.72 Mbit/s)

Flow 1 (95th percentile 104.65 ms)

```
Run 3: Statistics of Verus

Start at: 2017-12-05 10:29:16
End at: 2017-12-05 10:29:46
Local clock offset: 1.192 ms
Remote clock offset: 2.51 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.32 Mbit/s
95th percentile per-packet one-way delay: 118.998 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 243.32 Mbit/s
95th percentile per-packet one-way delay: 118.998 ms
Loss rate: 0.49%
```
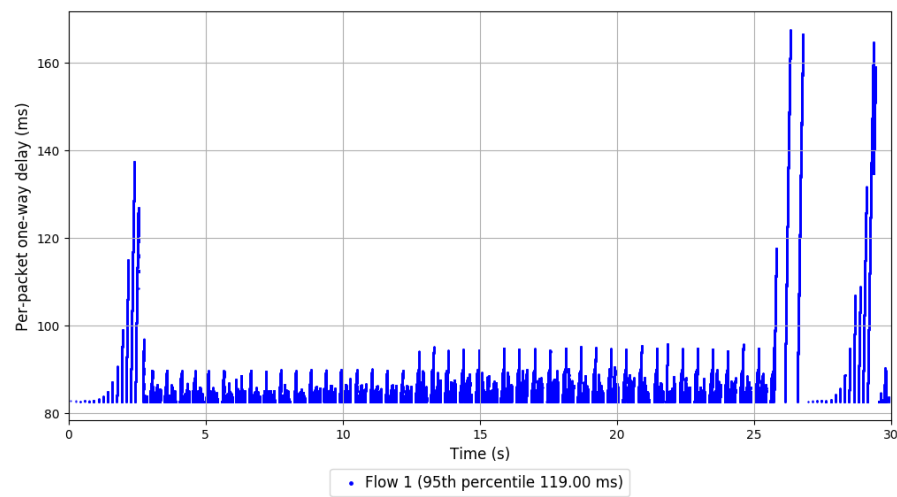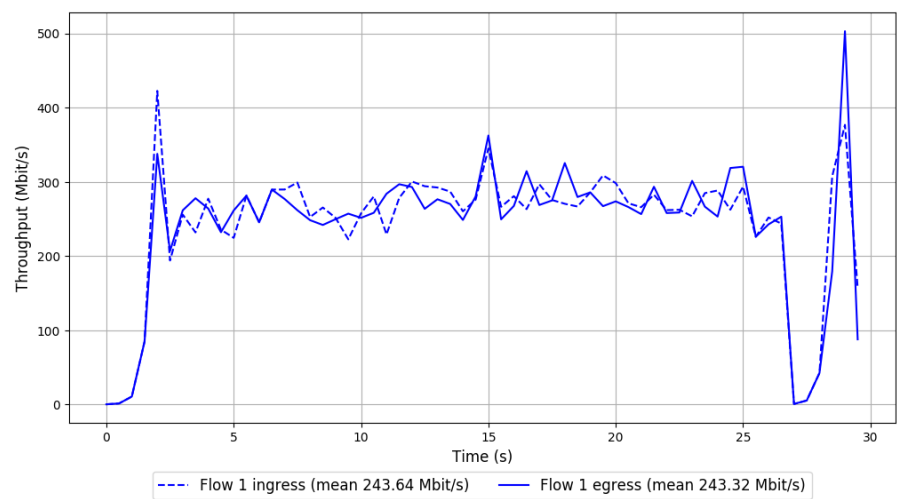
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 243.64 Mbit/s)   Flow 1 egress (mean 243.32 Mbit/s)

• Flow 1 (95th percentile 119.00 ms)

```
Run 4: Statistics of Verus

Start at: 2017-12-05 10:47:20
End at: 2017-12-05 10:47:50
Local clock offset: 2.389 ms
Remote clock offset: 1.844 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.81 Mbit/s
95th percentile per-packet one-way delay: 97.690 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 193.81 Mbit/s
95th percentile per-packet one-way delay: 97.690 ms
Loss rate: 0.20%
```
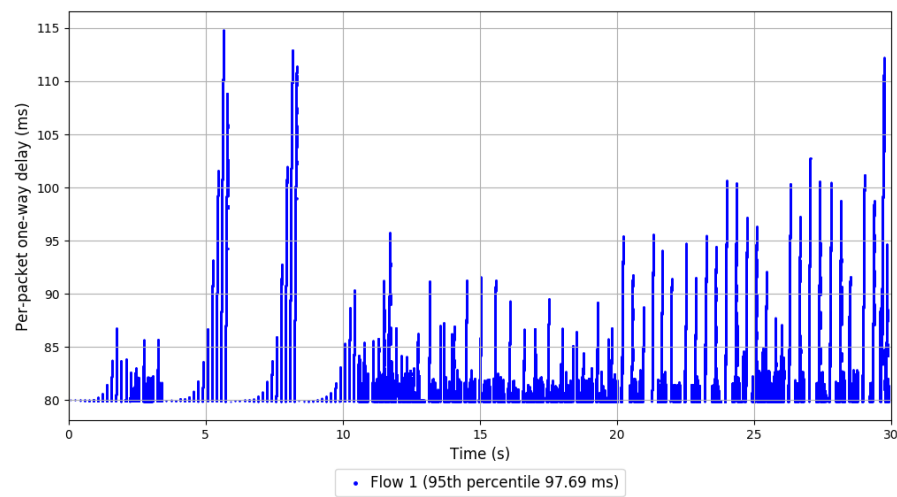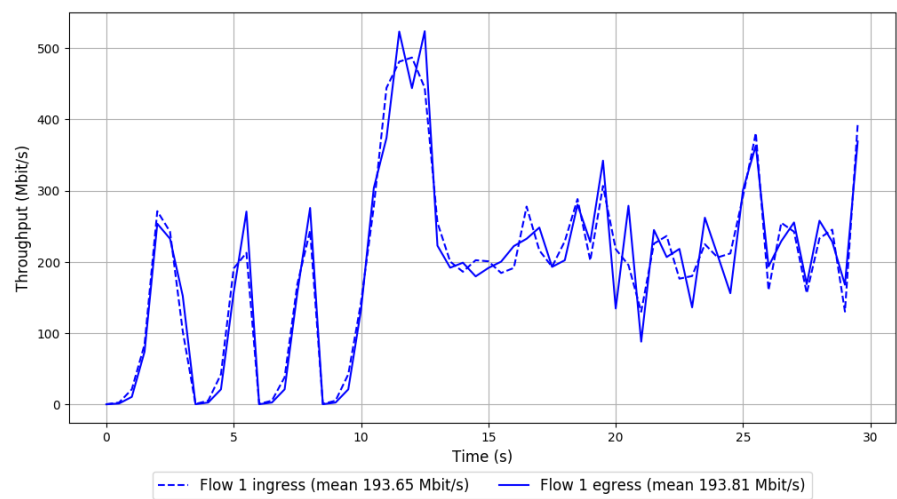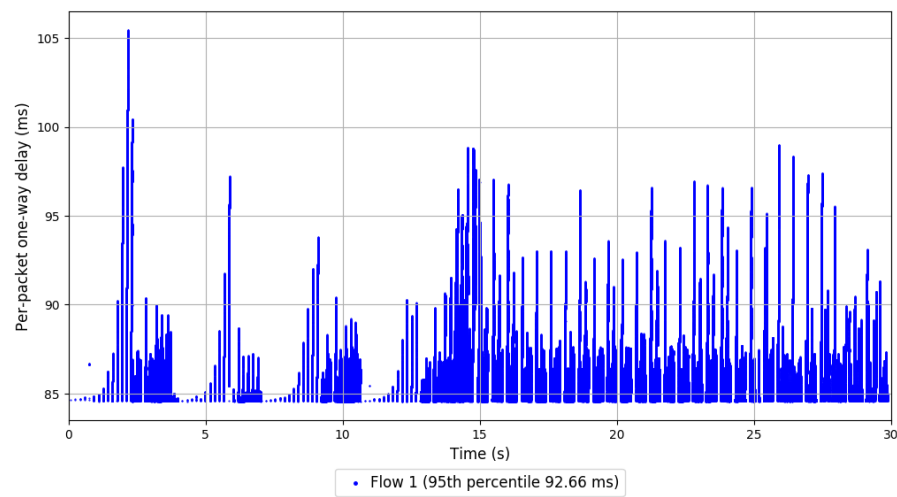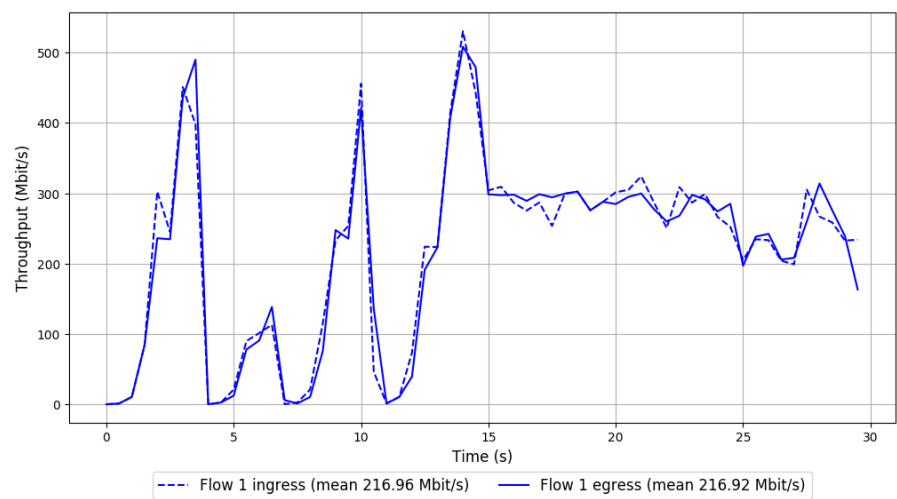
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2017-12-05 11:05:03
End at: 2017-12-05 11:05:33
Local clock offset: 3.297 ms
Remote clock offset: -2.328 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.92 Mbit/s
95th percentile per-packet one-way delay: 92.659 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 216.92 Mbit/s
95th percentile per-packet one-way delay: 92.659 ms
Loss rate: 0.60%
```
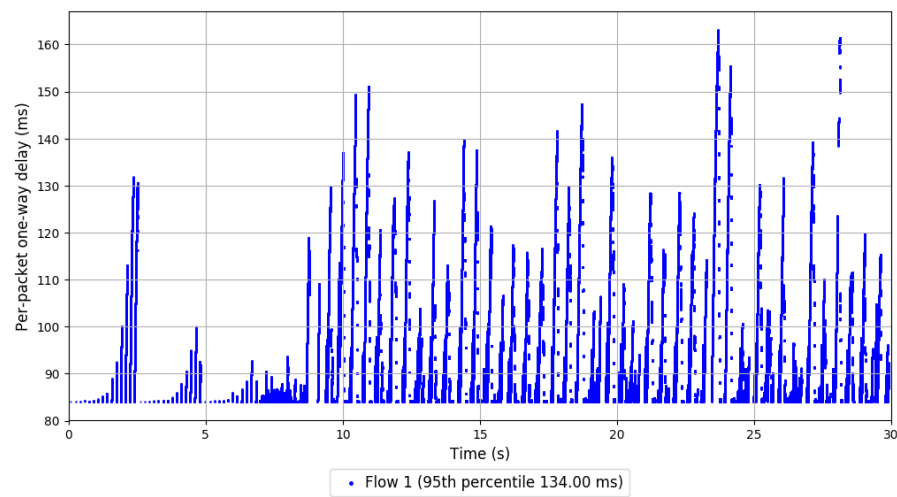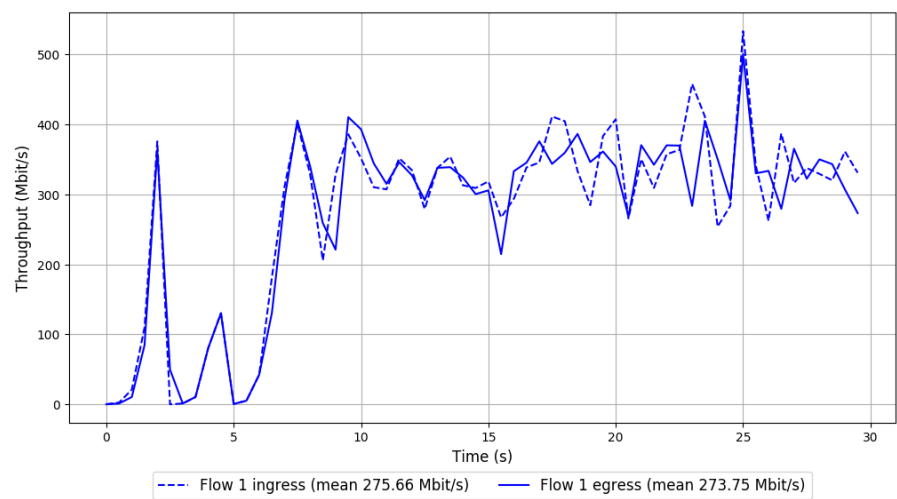
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2017-12-05 11:23:12
End at: 2017-12-05 11:23:42
Local clock offset: 2.33 ms
Remote clock offset: -3.323 ms


# Below is generated by plot.py at 2017-12-05 16:13:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.75 Mbit/s
95th percentile per-packet one-way delay: 134.000 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 273.75 Mbit/s
95th percentile per-packet one-way delay: 134.000 ms
Loss rate: 1.24%
```

Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2017-12-05 11:41:19
End at: 2017-12-05 11:41:49
Local clock offset: 1.519 ms
Remote clock offset: 2.003 ms


# Below is generated by plot.py at 2017-12-05 16:15:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.17 Mbit/s
95th percentile per-packet one-way delay: 91.913 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 281.17 Mbit/s
95th percentile per-packet one-way delay: 91.913 ms
Loss rate: 0.52%
```
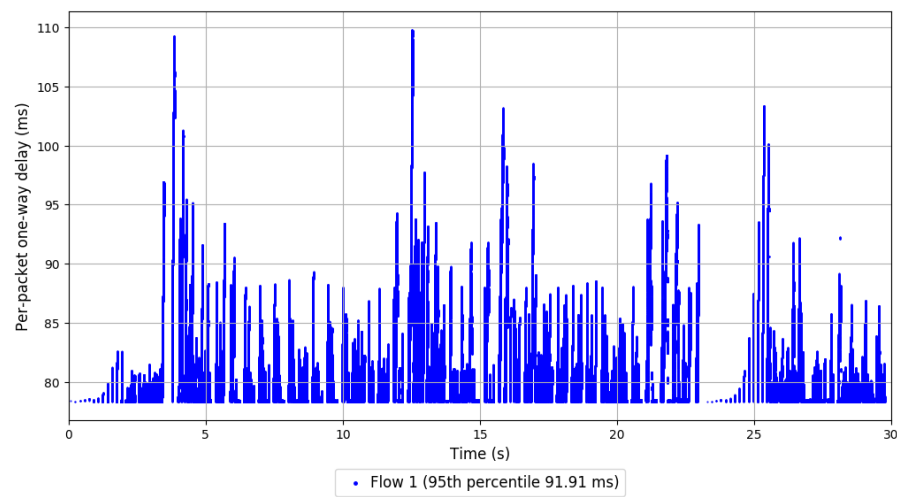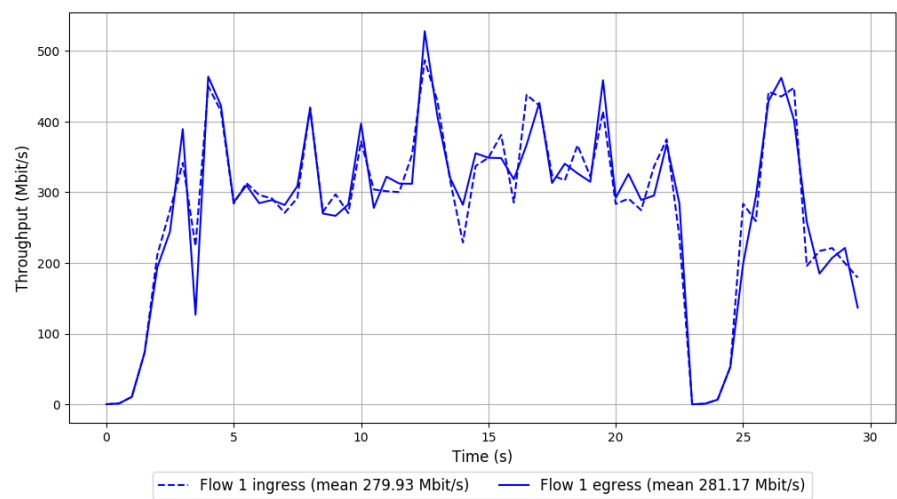
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2017-12-05 11:59:20
End at: 2017-12-05 11:59:50
Local clock offset: 1.069 ms
Remote clock offset: 0.585 ms


# Below is generated by plot.py at 2017-12-05 16:15:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.14 Mbit/s
95th percentile per-packet one-way delay: 101.714 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 227.14 Mbit/s
95th percentile per-packet one-way delay: 101.714 ms
Loss rate: 3.87%
```
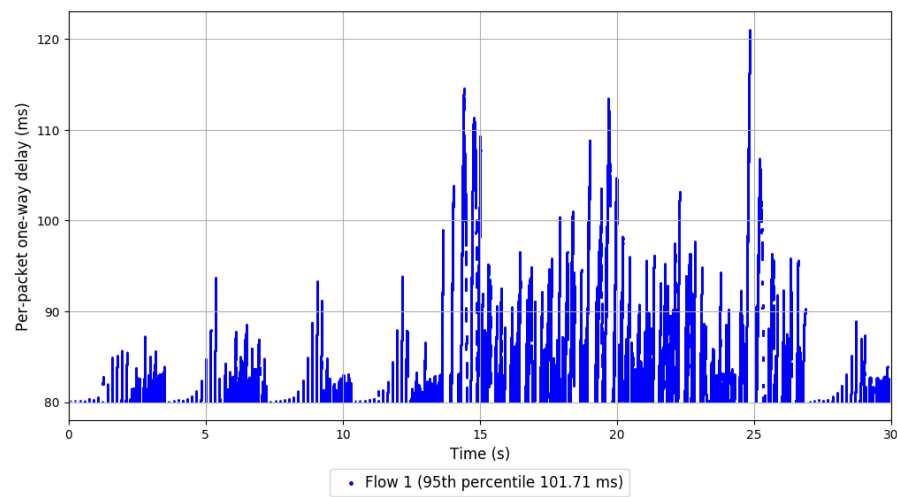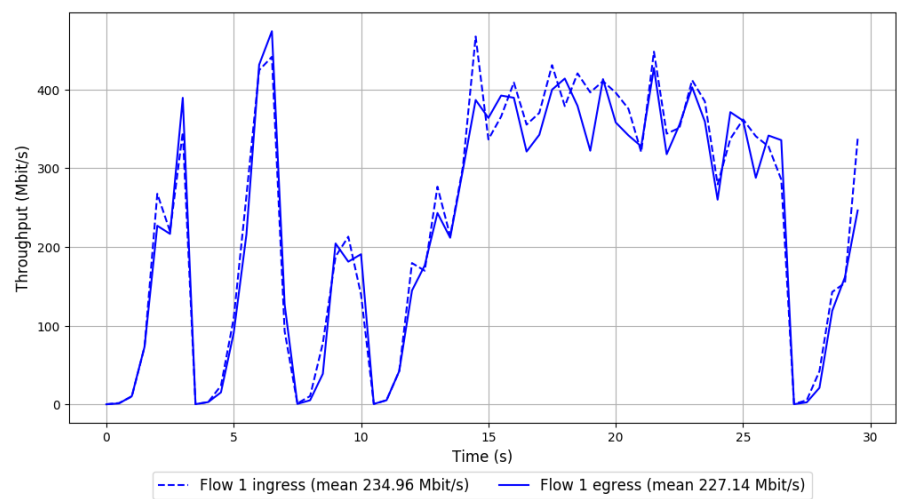
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 234.96 Mbit/s) — — — Flow 1 egress (mean 227.14 Mbit/s)

• Flow 1 (95th percentile 101.71 ms)

```
Run 9: Statistics of Verus

Start at: 2017-12-05 12:17:07
End at: 2017-12-05 12:17:37
Local clock offset: 0.608 ms
Remote clock offset: 0.527 ms


# Below is generated by plot.py at 2017-12-05 16:15:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.22 Mbit/s
95th percentile per-packet one-way delay: 95.219 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 246.22 Mbit/s
95th percentile per-packet one-way delay: 95.219 ms
Loss rate: 0.40%
```
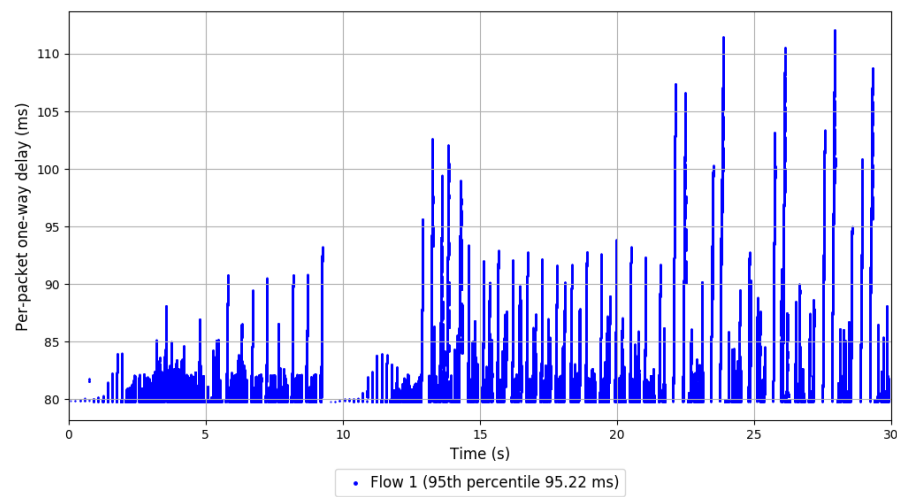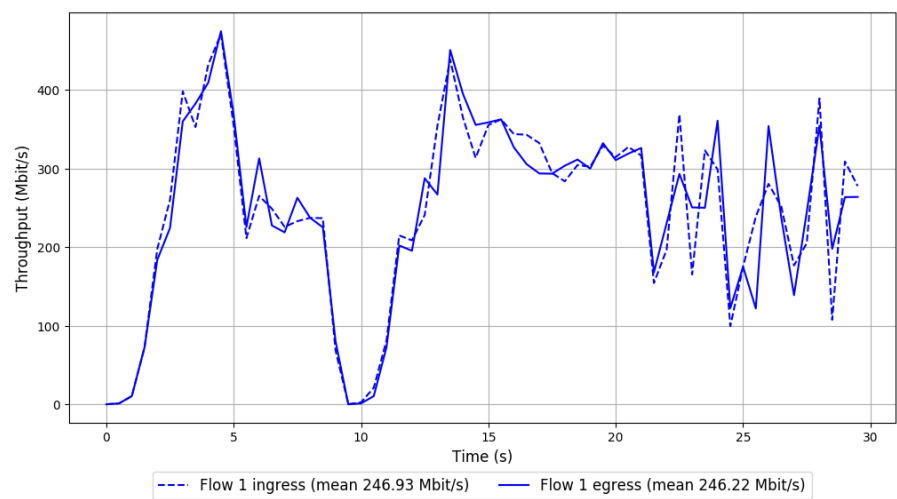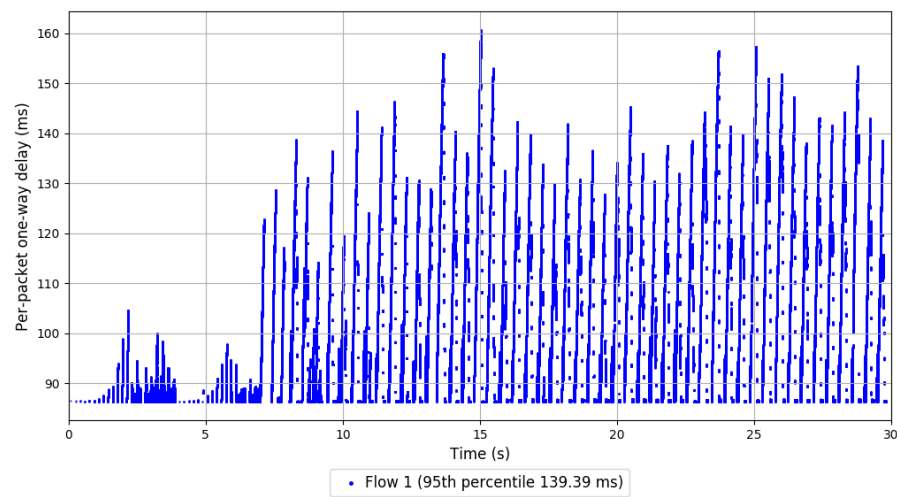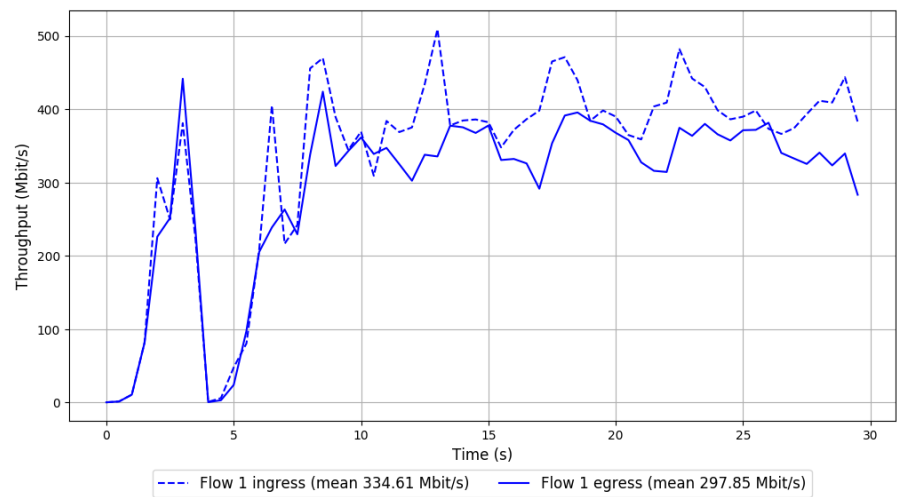
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2017-12-05 12:35:13
End at: 2017-12-05 12:35:43
Local clock offset: 0.273 ms
Remote clock offset: -5.361 ms


# Below is generated by plot.py at 2017-12-05 16:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 297.85 Mbit/s
95th percentile per-packet one-way delay: 139.393 ms
Loss rate: 11.79%
-- Flow 1:
Average throughput: 297.85 Mbit/s
95th percentile per-packet one-way delay: 139.393 ms
Loss rate: 11.79%
```

Run 10: Report of Verus — Data Link

Flow 1 ingress (mean 334.61 Mbit/s)   —— Flow 1 egress (mean 297.85 Mbit/s)

• Flow 1 (95th percentile 139.39 ms)

```
Run 1: Statistics of Copa

Start at: 2017-12-05 09:59:19
End at: 2017-12-05 09:59:49
Local clock offset: 1.168 ms
Remote clock offset: 4.737 ms


# Below is generated by plot.py at 2017-12-05 16:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 80.641 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 80.641 ms
Loss rate: 0.82%
```
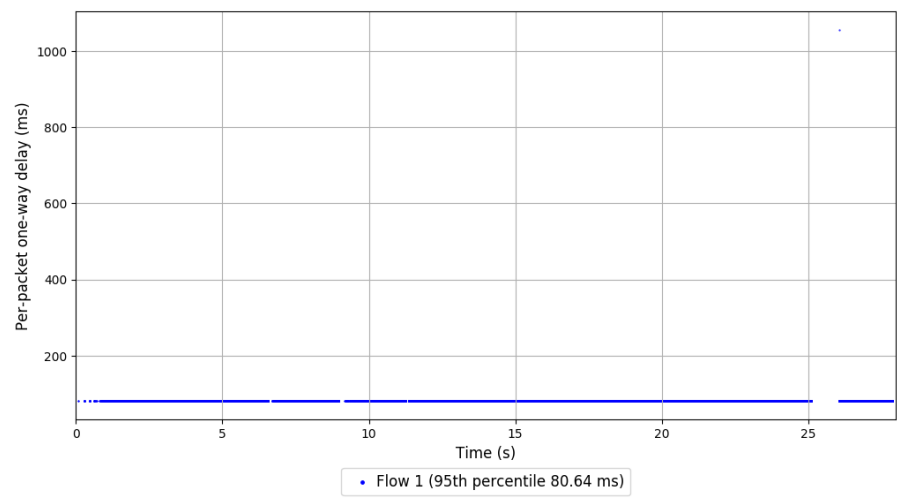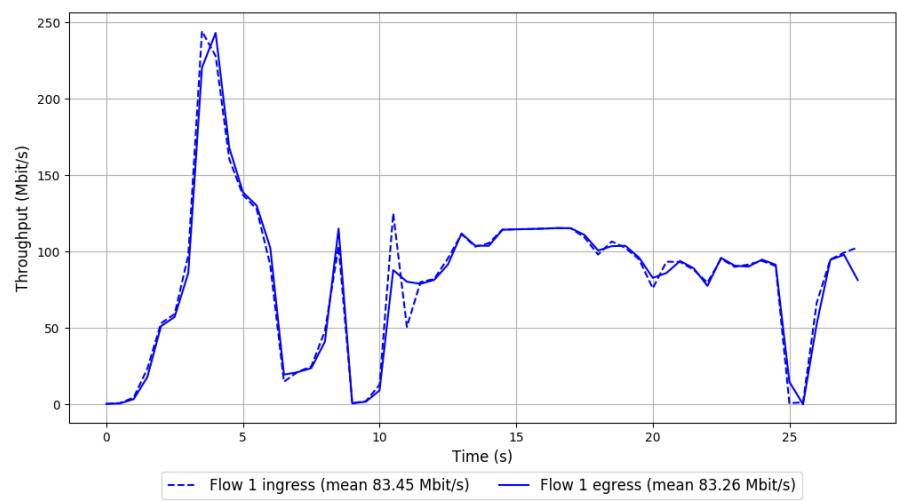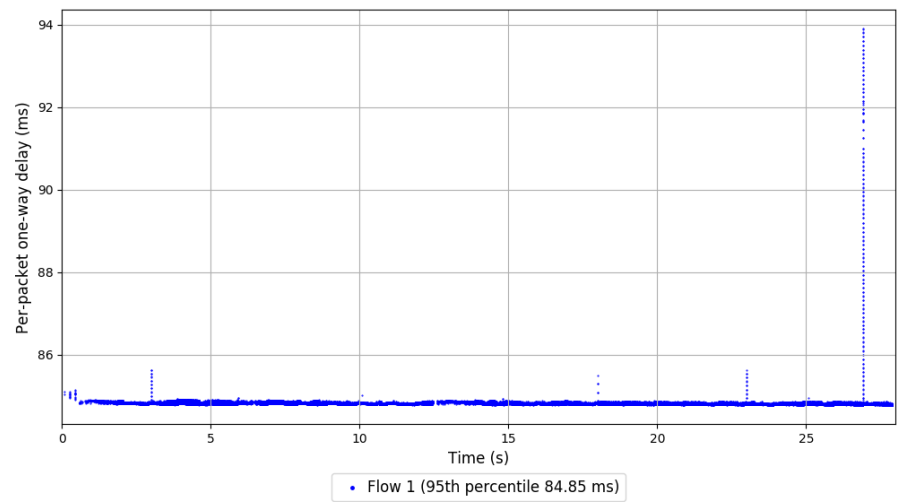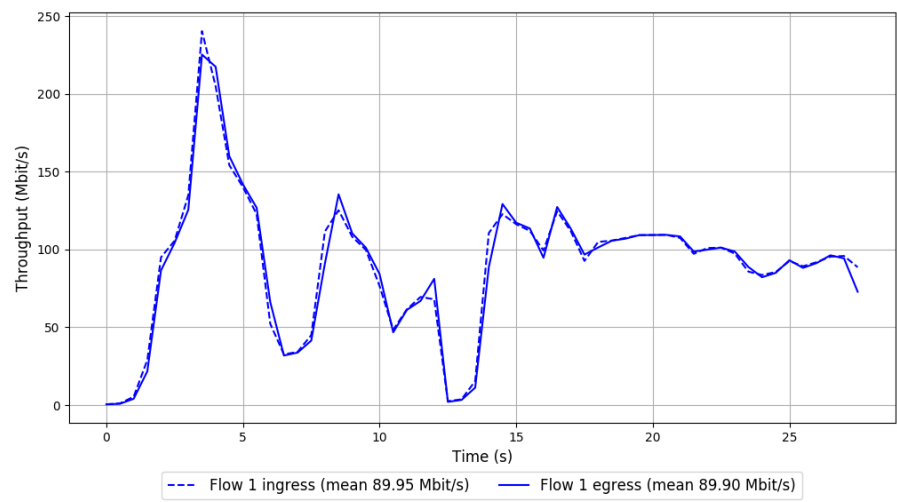
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2017-12-05 10:17:26
End at: 2017-12-05 10:17:56
Local clock offset: 1.176 ms
Remote clock offset: -1.979 ms


# Below is generated by plot.py at 2017-12-05 16:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.90 Mbit/s
95th percentile per-packet one-way delay: 84.853 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 89.90 Mbit/s
95th percentile per-packet one-way delay: 84.853 ms
Loss rate: 0.64%
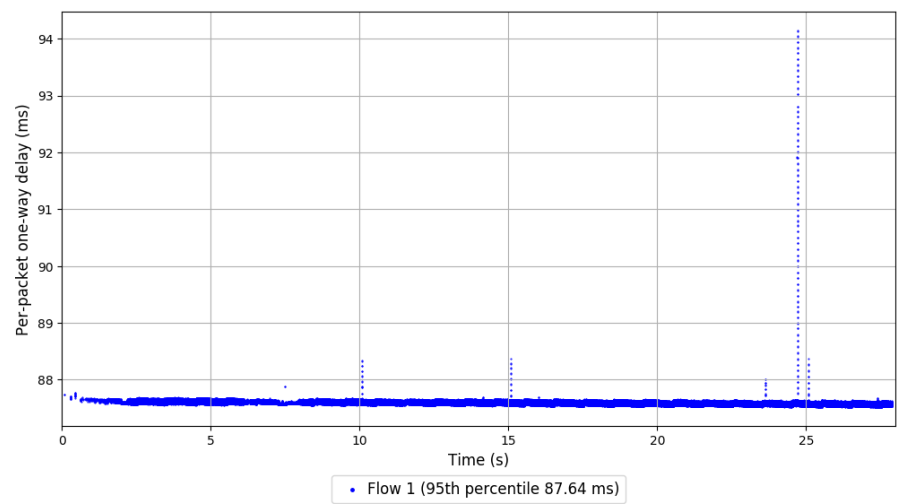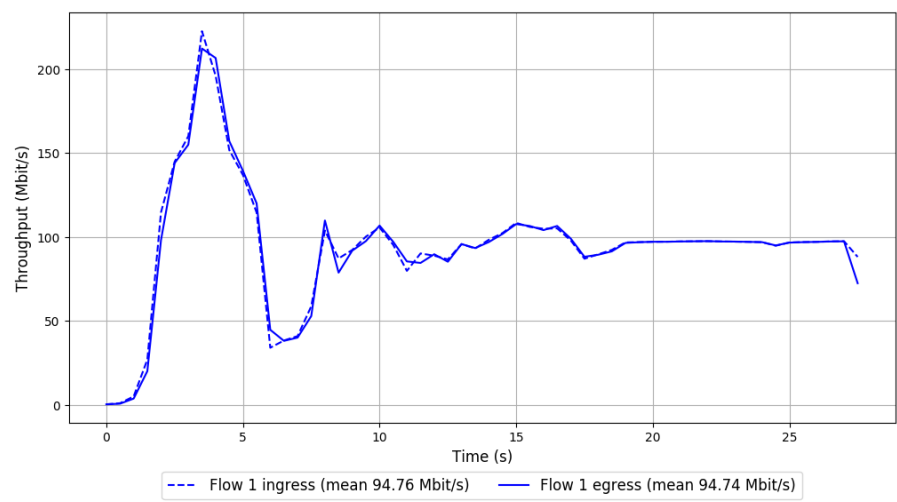```

Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2017-12-05 10:35:24
End at: 2017-12-05 10:35:54
Local clock offset: 1.634 ms
Remote clock offset: -2.646 ms


# Below is generated by plot.py at 2017-12-05 16:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.74 Mbit/s
95th percentile per-packet one-way delay: 87.643 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 94.74 Mbit/s
95th percentile per-packet one-way delay: 87.643 ms
Loss rate: 0.62%
```

Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 94.76 Mbit/s) —— Flow 1 egress (mean 94.74 Mbit/s)

• Flow 1 (95th percentile 87.64 ms)

```
Run 4: Statistics of Copa

Start at: 2017-12-05 10:53:27
End at: 2017-12-05 10:53:58
Local clock offset: 2.72 ms
Remote clock offset: 1.938 ms


# Below is generated by plot.py at 2017-12-05 16:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 80.802 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 95.74 Mbit/s
95th percentile per-packet one-way delay: 80.802 ms
Loss rate: 0.62%
```
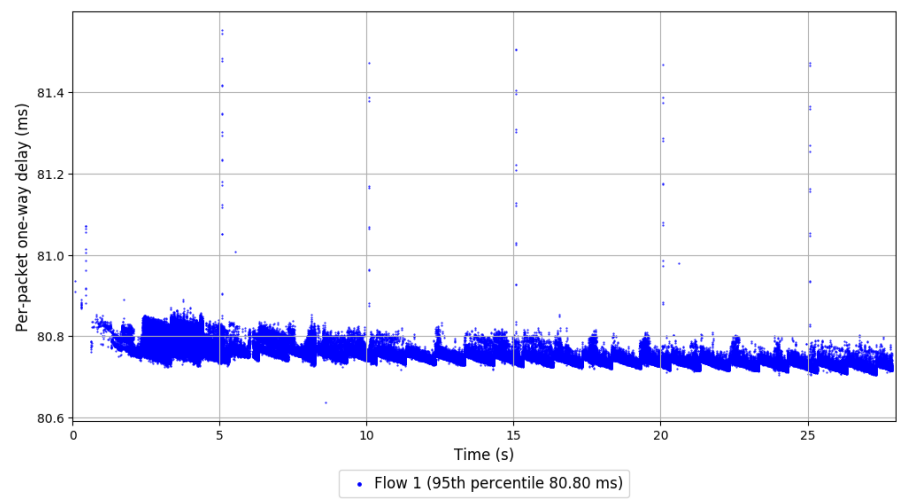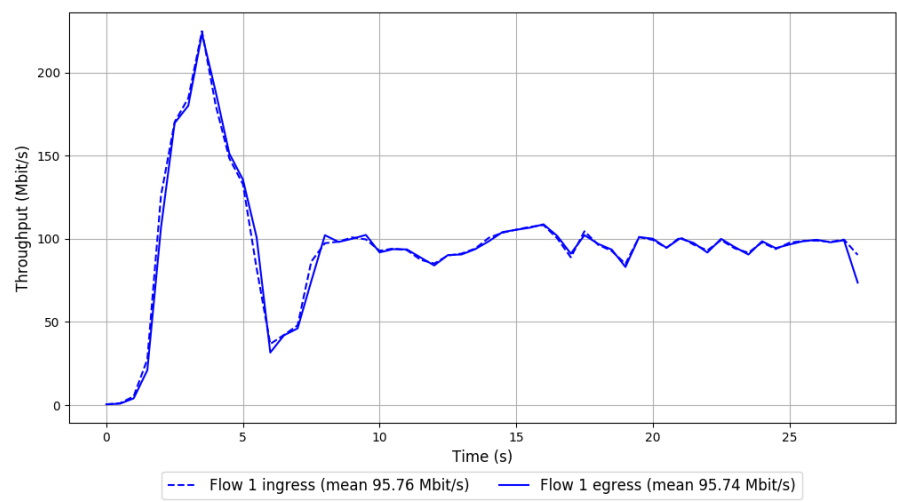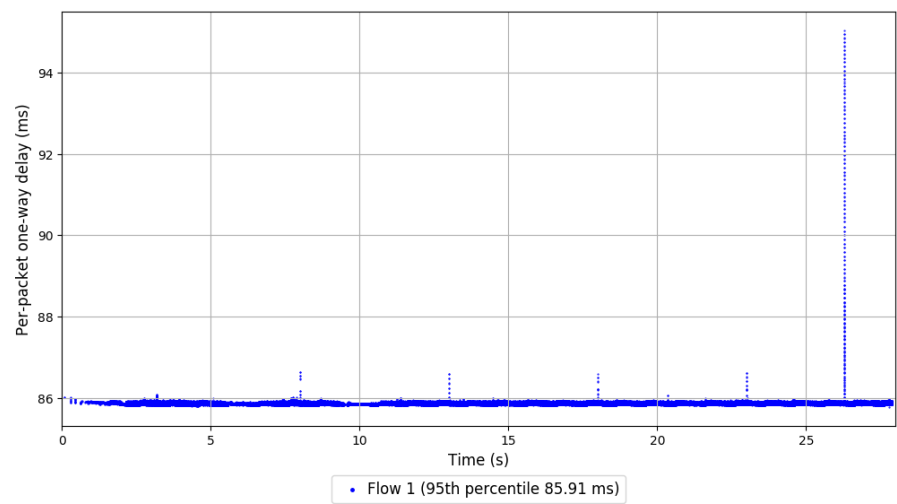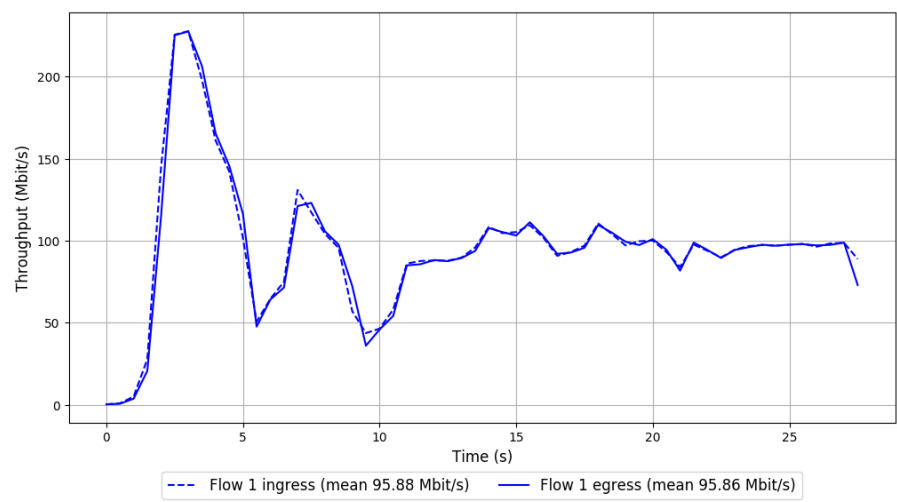
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2017-12-05 11:11:14
End at: 2017-12-05 11:11:44
Local clock offset: 3.055 ms
Remote clock offset: -4.088 ms


# Below is generated by plot.py at 2017-12-05 16:16:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 85.912 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 85.912 ms
Loss rate: 0.61%
```

Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 95.88 Mbit/s) — — — Flow 1 egress (mean 95.86 Mbit/s)
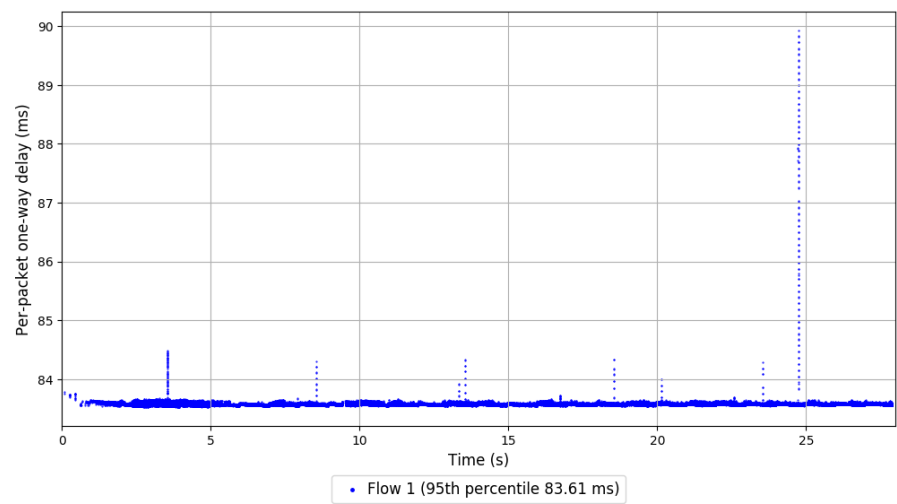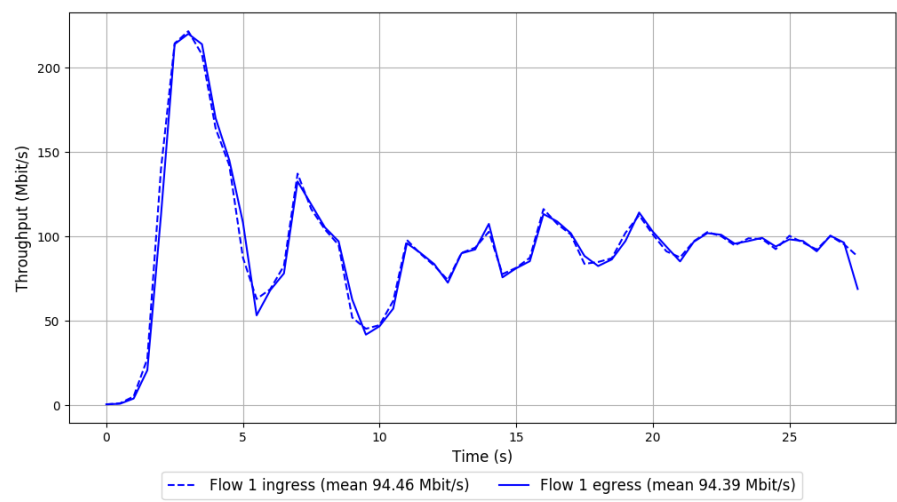

Flow 1 (95th percentile 85.91 ms)

```
Run 6: Statistics of Copa

Start at: 2017-12-05 11:29:32
End at: 2017-12-05 11:30:02
Local clock offset: 1.985 ms
Remote clock offset: -3.371 ms


# Below is generated by plot.py at 2017-12-05 16:17:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.39 Mbit/s
95th percentile per-packet one-way delay: 83.605 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 94.39 Mbit/s
95th percentile per-packet one-way delay: 83.605 ms
Loss rate: 0.66%
```

Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 94.46 Mbit/s)   ——— Flow 1 egress (mean 94.39 Mbit/s)

• Flow 1 (95th percentile 83.61 ms)

```
Run 7: Statistics of Copa

Start at: 2017-12-05 11:47:31
End at: 2017-12-05 11:48:01
Local clock offset: 1.339 ms
Remote clock offset: 0.578 ms


# Below is generated by plot.py at 2017-12-05 16:17:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.13 Mbit/s
95th percentile per-packet one-way delay: 81.098 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 76.13 Mbit/s
95th percentile per-packet one-way delay: 81.098 ms
Loss rate: 0.01%
```
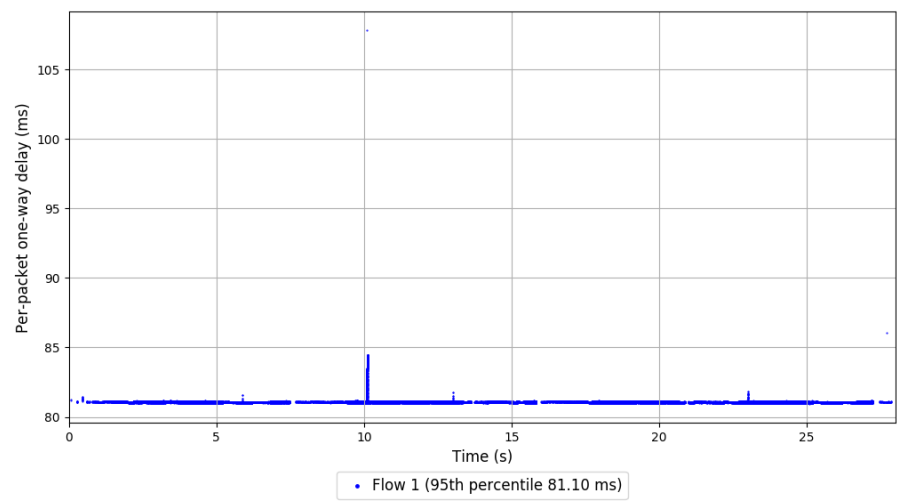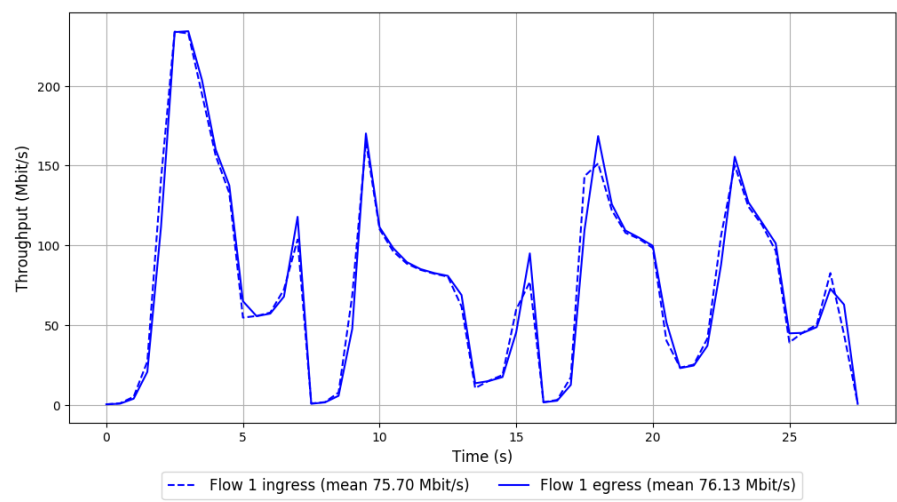
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2017-12-05 12:05:32
End at: 2017-12-05 12:06:02
Local clock offset: 0.959 ms
Remote clock offset: -5.28 ms

# Below is generated by plot.py at 2017-12-05 16:17:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 87.678 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 87.678 ms
Loss rate: 0.61%
```
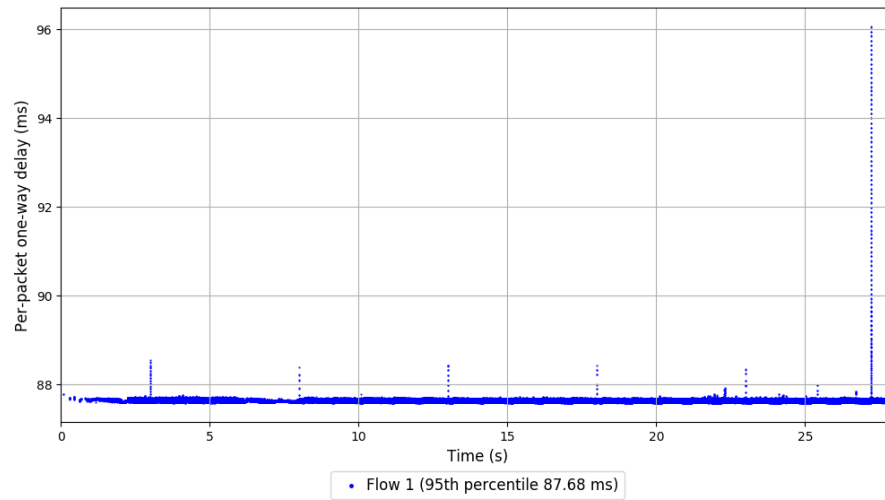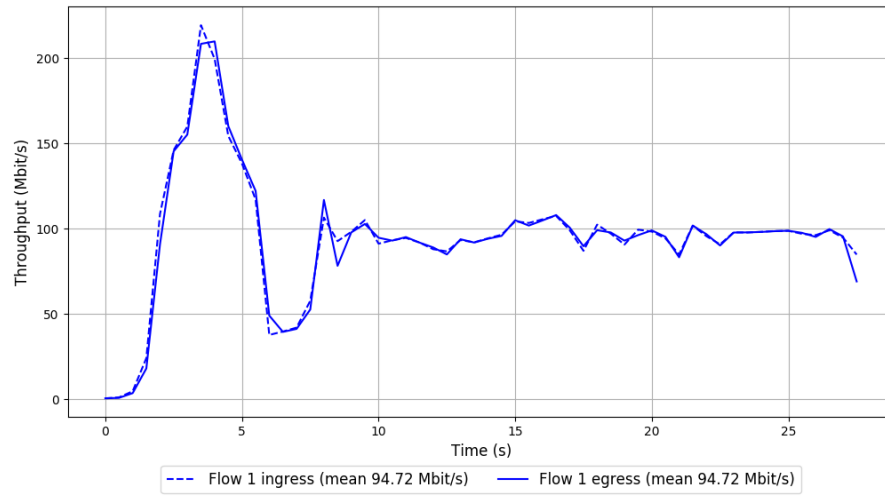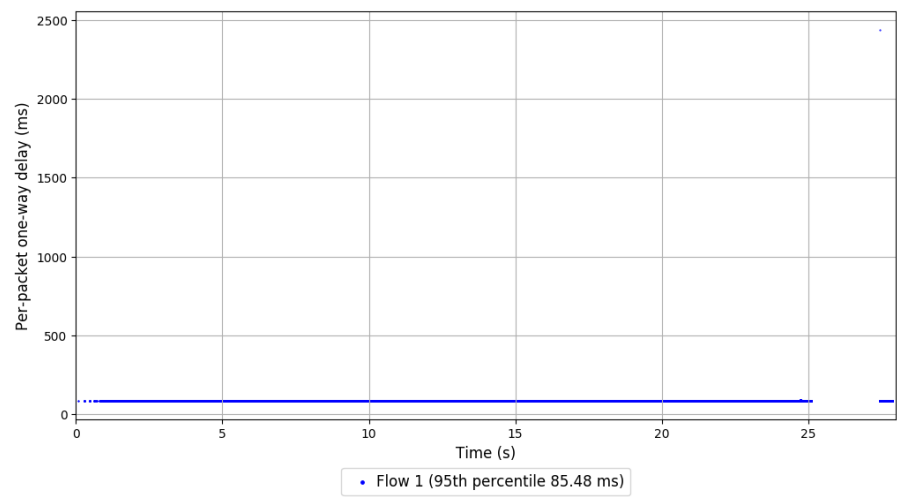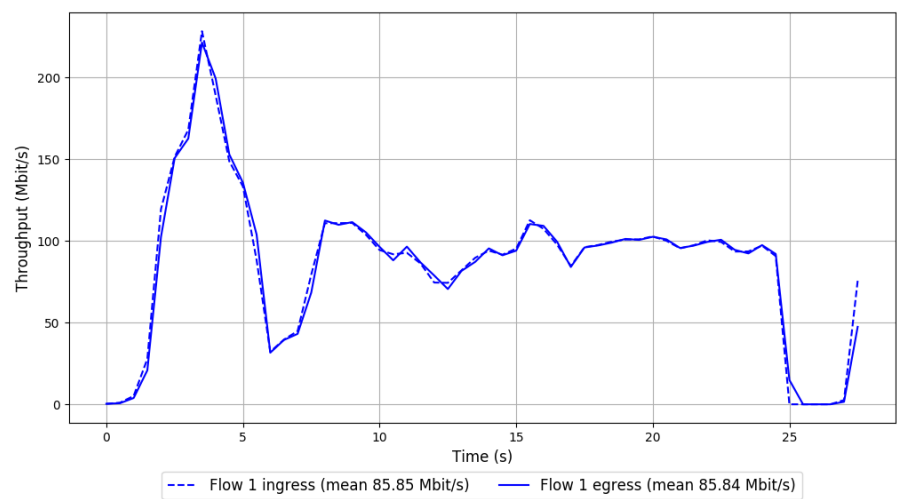
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2017-12-05 12:23:18
End at: 2017-12-05 12:23:48
Local clock offset: 0.527 ms
Remote clock offset: -5.028 ms


# Below is generated by plot.py at 2017-12-05 16:17:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.84 Mbit/s
95th percentile per-packet one-way delay: 85.476 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 85.84 Mbit/s
95th percentile per-packet one-way delay: 85.476 ms
Loss rate: 0.61%
```
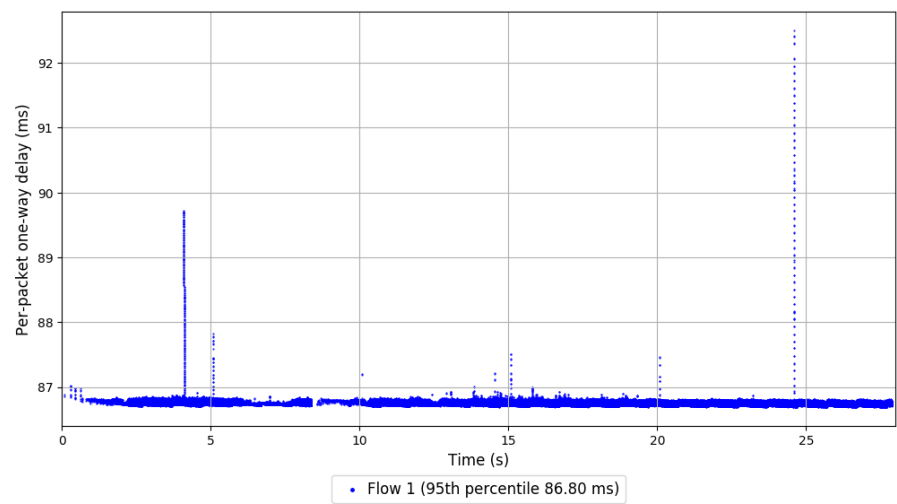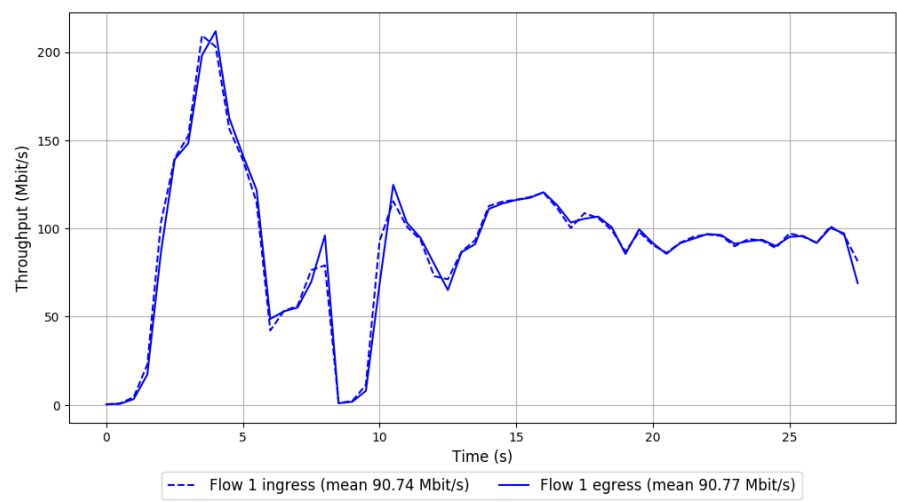
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2017-12-05 12:41:32
End at: 2017-12-05 12:42:02
Local clock offset: 0.142 ms
Remote clock offset: -5.615 ms


# Below is generated by plot.py at 2017-12-05 16:17:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.77 Mbit/s
95th percentile per-packet one-way delay: 86.797 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 90.77 Mbit/s
95th percentile per-packet one-way delay: 86.797 ms
Loss rate: 0.57%
```
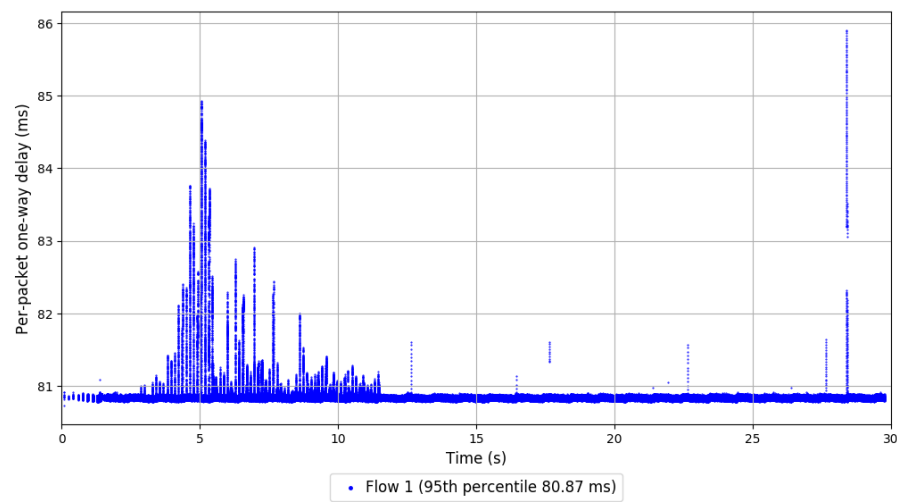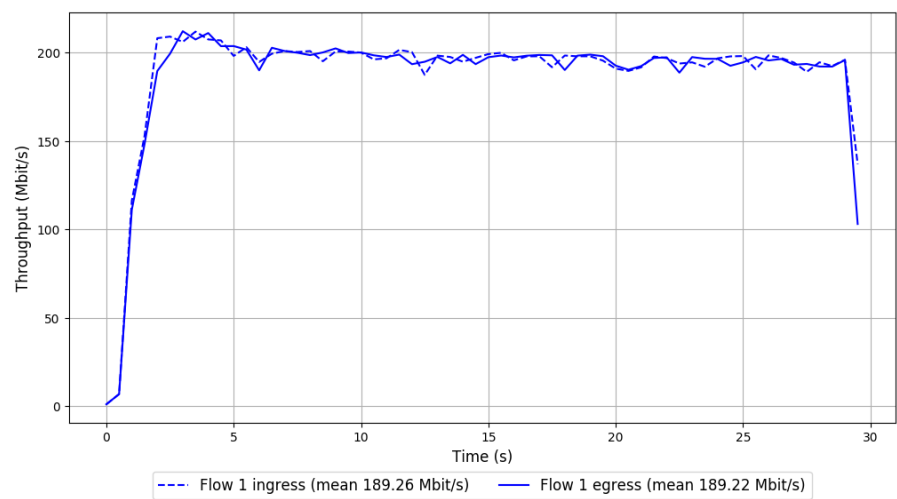
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of Indigo

Start at: 2017-12-05 10:04:22
End at: 2017-12-05 10:04:52
Local clock offset: 1.186 ms
Remote clock offset: 3.806 ms


# Below is generated by plot.py at 2017-12-05 16:18:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.22 Mbit/s
95th percentile per-packet one-way delay: 80.870 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 189.22 Mbit/s
95th percentile per-packet one-way delay: 80.870 ms
Loss rate: 0.58%
```

Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 189.26 Mbit/s)   Flow 1 egress (mean 189.22 Mbit/s)

Flow 1 (95th percentile 80.87 ms)

```
Run 2: Statistics of Indigo

Start at: 2017-12-05 10:22:36
End at: 2017-12-05 10:23:06
Local clock offset: 1.186 ms
Remote clock offset: -1.303 ms


# Below is generated by plot.py at 2017-12-05 16:19:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.42 Mbit/s
95th percentile per-packet one-way delay: 85.236 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 189.42 Mbit/s
95th percentile per-packet one-way delay: 85.236 ms
Loss rate: 0.53%
```
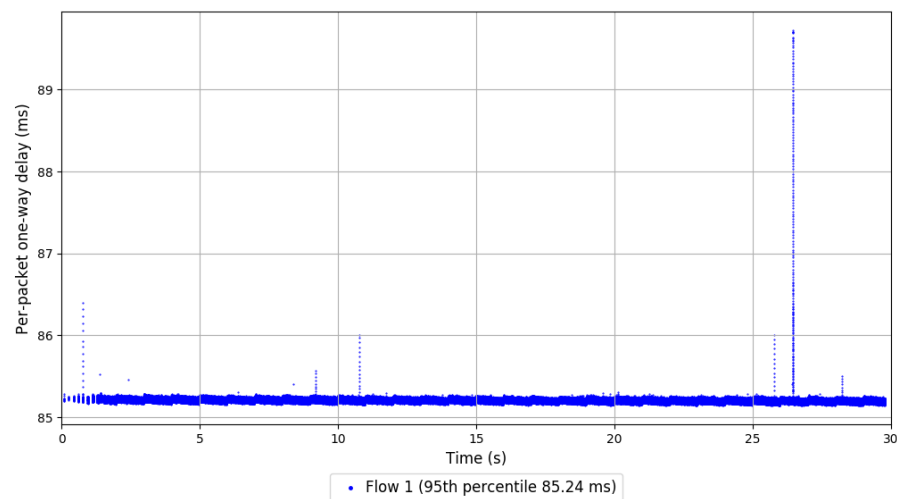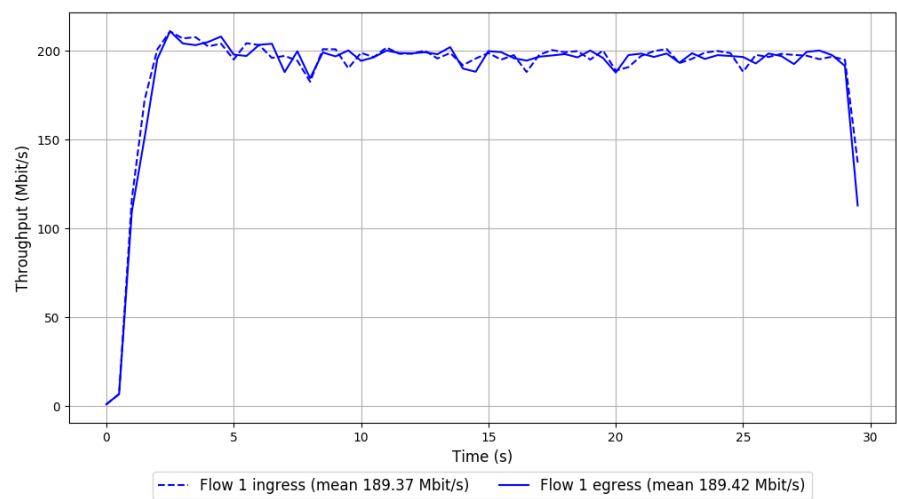
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 189.37 Mbit/s)   Flow 1 egress (mean 189.42 Mbit/s)

Flow 1 (95th percentile 85.24 ms)

```
Run 3: Statistics of Indigo

Start at: 2017-12-05 10:40:33
End at: 2017-12-05 10:41:03
Local clock offset: 1.993 ms
Remote clock offset: 2.864 ms


# Below is generated by plot.py at 2017-12-05 16:19:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 80.270 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 80.270 ms
Loss rate: 0.58%
```
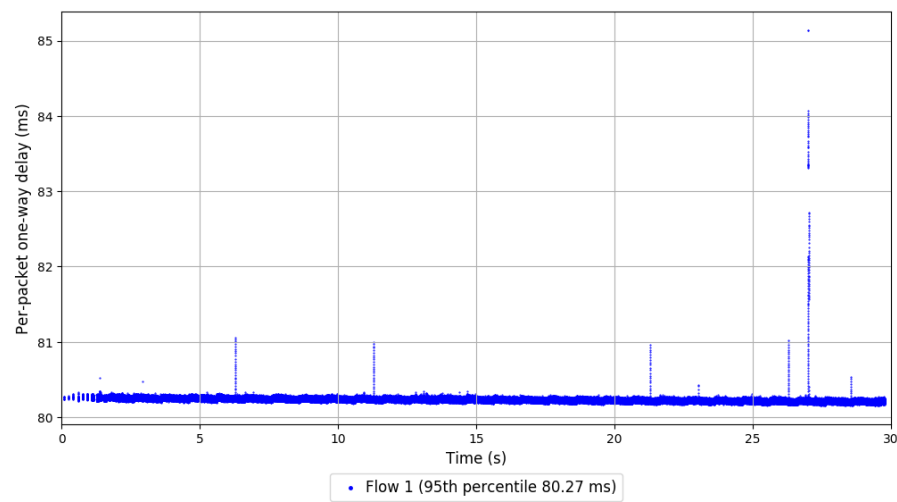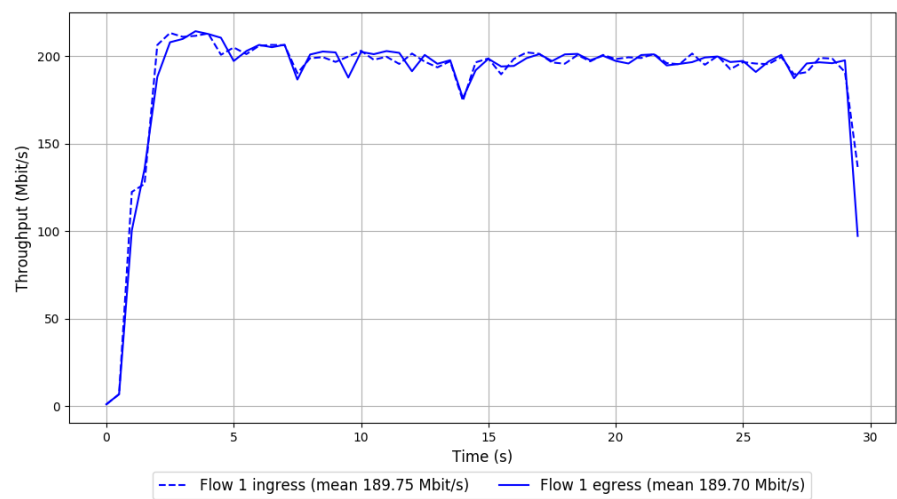
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 189.75 Mbit/s) —— Flow 1 egress (mean 189.70 Mbit/s)

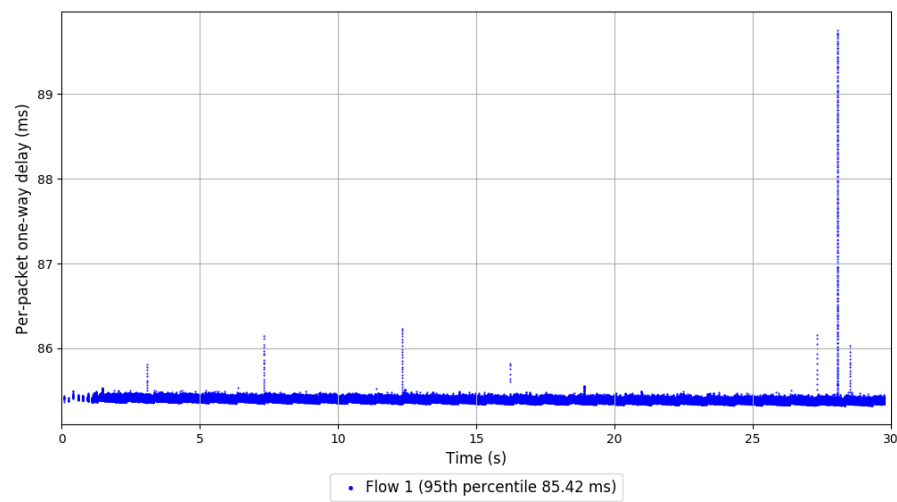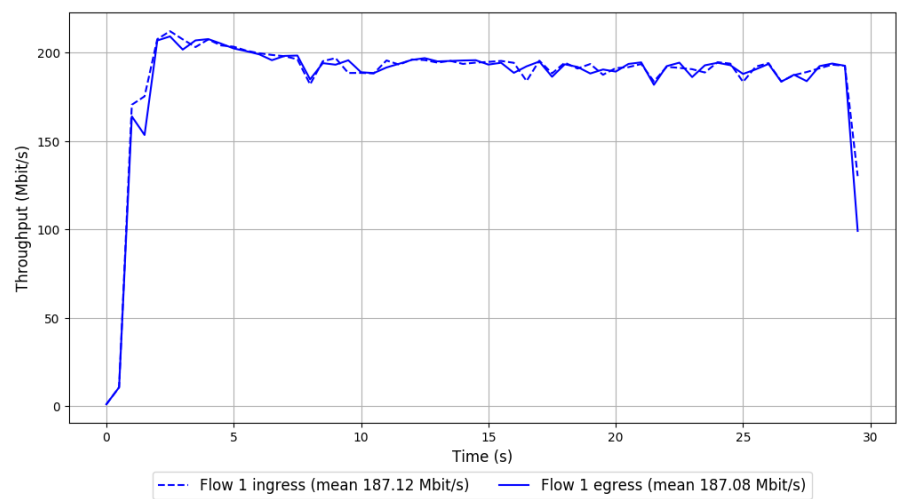

• Flow 1 (95th percentile 80.27 ms)

```
Run 4: Statistics of Indigo

Start at: 2017-12-05 10:58:36
End at: 2017-12-05 10:59:06
Local clock offset: 3.047 ms
Remote clock offset: -3.327 ms


# Below is generated by plot.py at 2017-12-05 16:19:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.08 Mbit/s
95th percentile per-packet one-way delay: 85.425 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 187.08 Mbit/s
95th percentile per-packet one-way delay: 85.425 ms
Loss rate: 0.58%
```

Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 187.12 Mbit/s) —— Flow 1 egress (mean 187.08 Mbit/s)

• Flow 1 (95th percentile 85.42 ms)

```
Run 5: Statistics of Indigo

Start at: 2017-12-05 11:16:22
End at: 2017-12-05 11:16:52
Local clock offset: 2.736 ms
Remote clock offset: -3.15 ms


# Below is generated by plot.py at 2017-12-05 16:20:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.40 Mbit/s
95th percentile per-packet one-way delay: 83.717 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 192.40 Mbit/s
95th percentile per-packet one-way delay: 83.717 ms
Loss rate: 0.58%
```
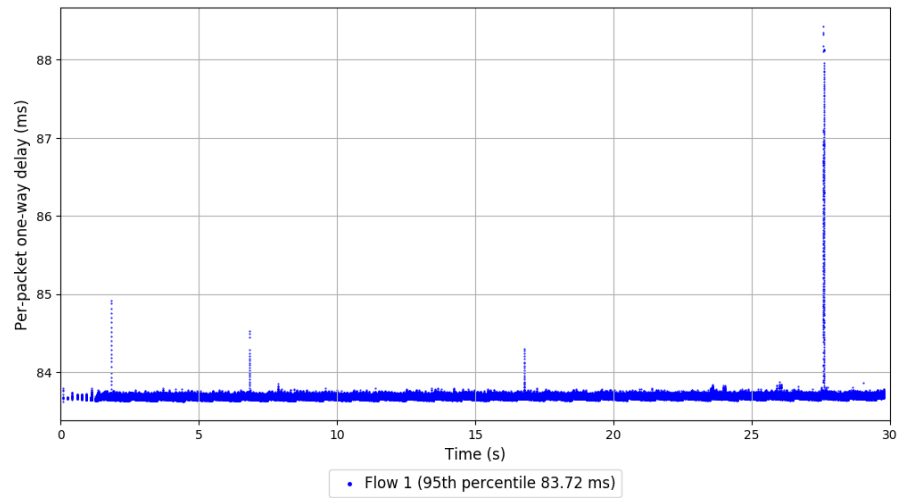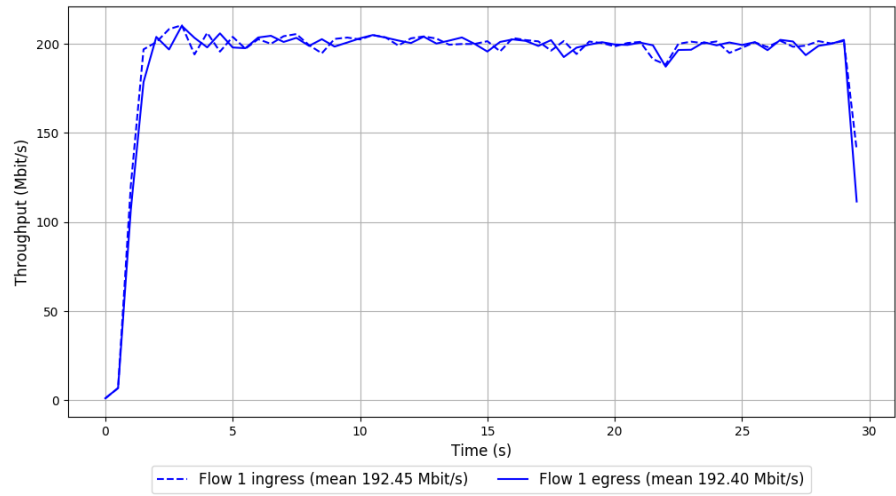
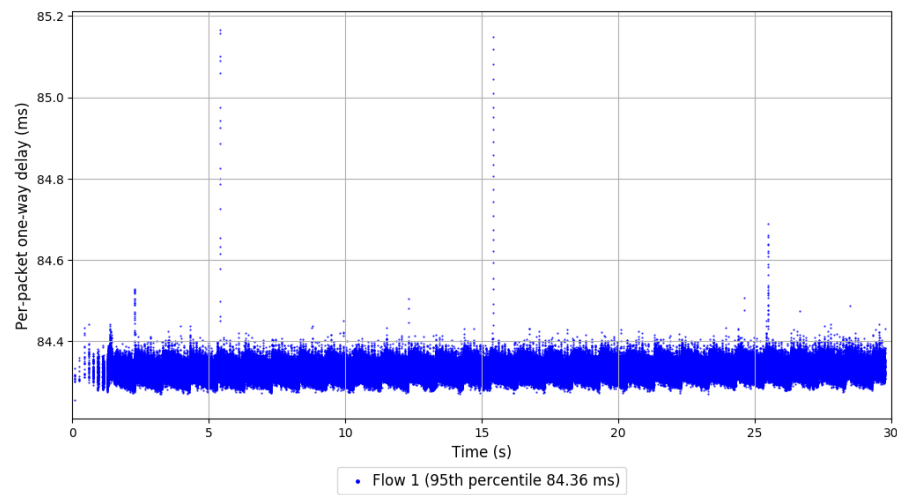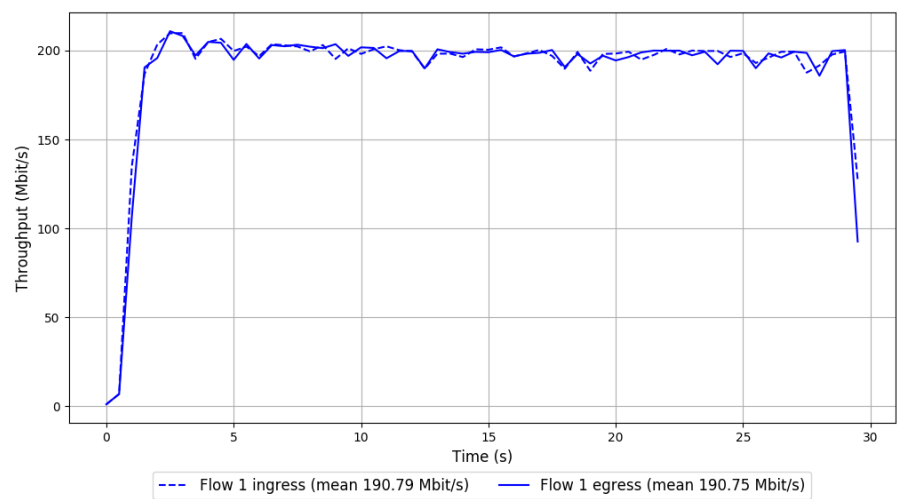## Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2017-12-05 11:34:41
End at: 2017-12-05 11:35:11
Local clock offset: 1.686 ms
Remote clock offset: -4.292 ms


# Below is generated by plot.py at 2017-12-05 16:20:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.75 Mbit/s
95th percentile per-packet one-way delay: 84.361 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 190.75 Mbit/s
95th percentile per-packet one-way delay: 84.361 ms
Loss rate: 0.58%
```
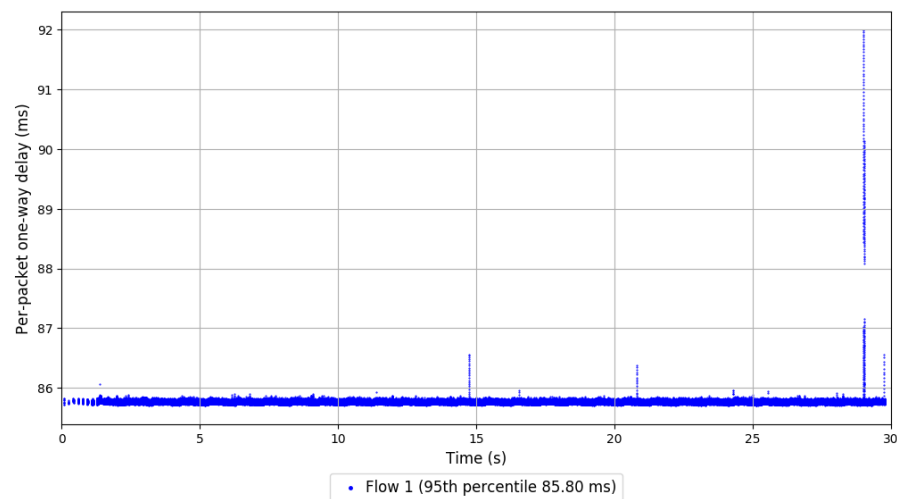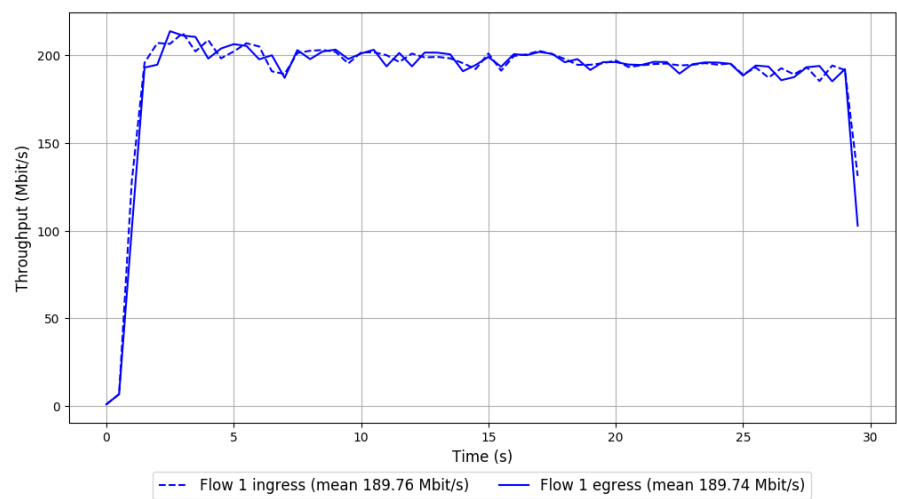
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-12-05 11:52:39
End at: 2017-12-05 11:53:09
Local clock offset: 1.204 ms
Remote clock offset: -5.068 ms


# Below is generated by plot.py at 2017-12-05 16:20:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.74 Mbit/s
95th percentile per-packet one-way delay: 85.799 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 189.74 Mbit/s
95th percentile per-packet one-way delay: 85.799 ms
Loss rate: 0.57%
```

Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2017-12-05 12:10:42
End at: 2017-12-05 12:11:12
Local clock offset: 0.833 ms
Remote clock offset: 0.753 ms


# Below is generated by plot.py at 2017-12-05 16:20:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.59 Mbit/s
95th percentile per-packet one-way delay: 79.914 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 190.59 Mbit/s
95th percentile per-packet one-way delay: 79.914 ms
Loss rate: 0.58%
```
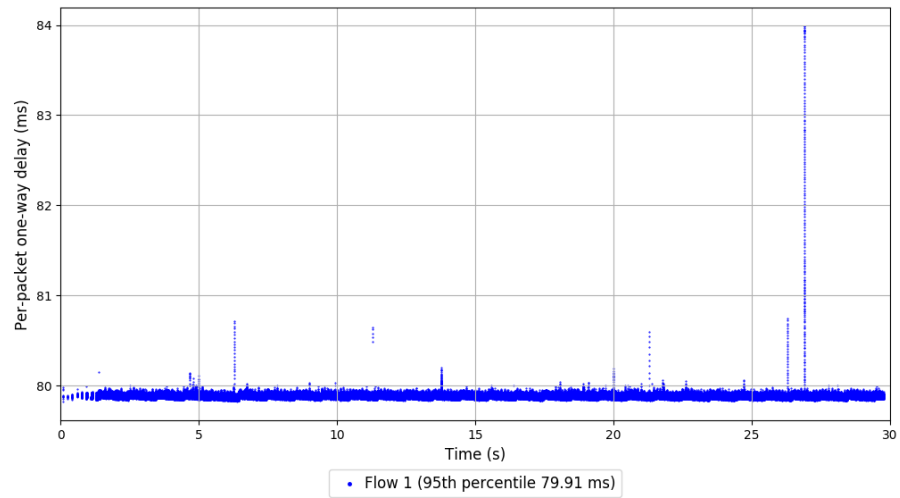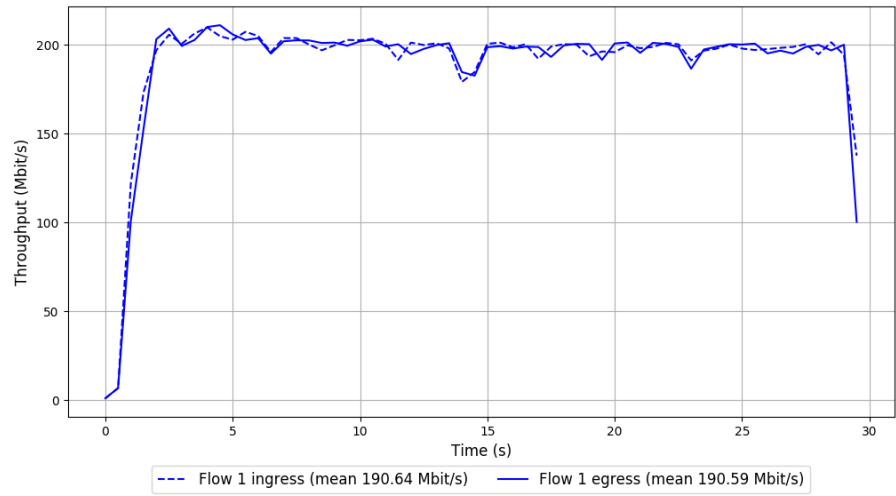
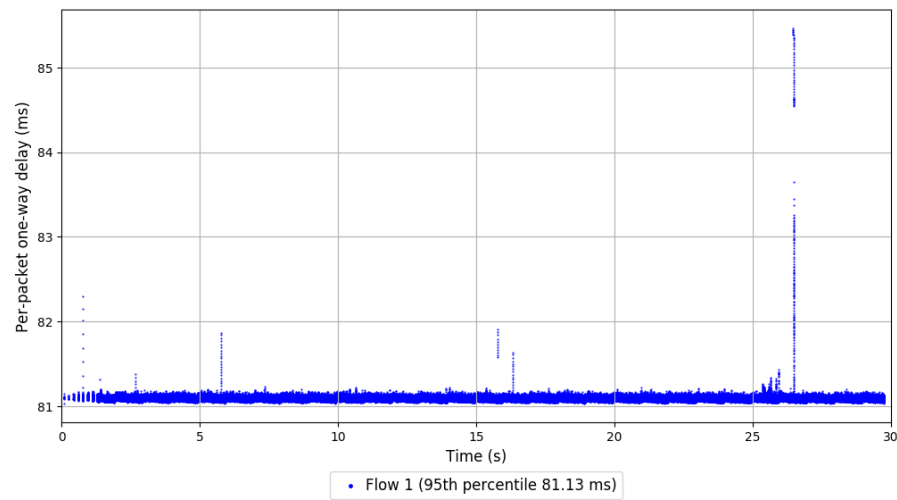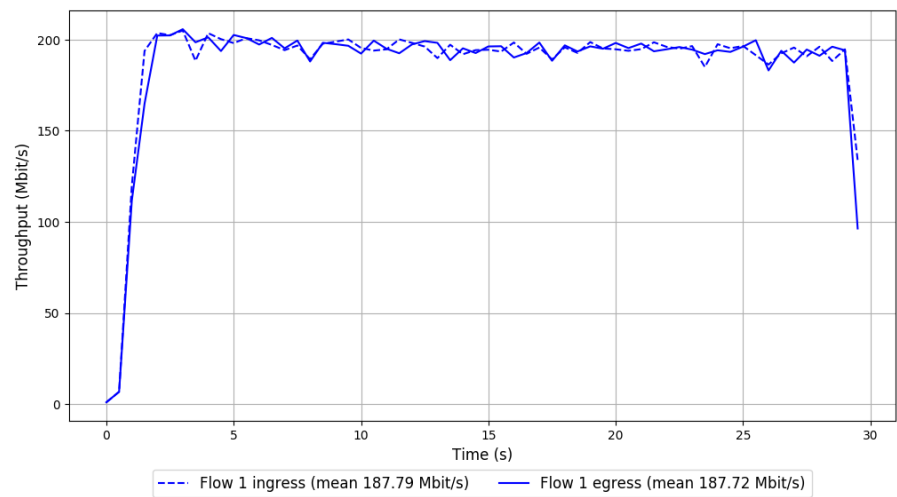## Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-12-05 12:28:25
End at: 2017-12-05 12:28:55
Local clock offset: 0.358 ms
Remote clock offset: -0.676 ms

# Below is generated by plot.py at 2017-12-05 16:20:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.72 Mbit/s
95th percentile per-packet one-way delay: 81.129 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 187.72 Mbit/s
95th percentile per-packet one-way delay: 81.129 ms
Loss rate: 0.59%
```

Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2017-12-05 12:46:40
End at: 2017-12-05 12:47:10
Local clock offset: 0.047 ms
Remote clock offset: -6.41 ms


# Below is generated by plot.py at 2017-12-05 16:22:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.26 Mbit/s
95th percentile per-packet one-way delay: 85.928 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 192.26 Mbit/s
95th percentile per-packet one-way delay: 85.928 ms
Loss rate: 0.58%
```
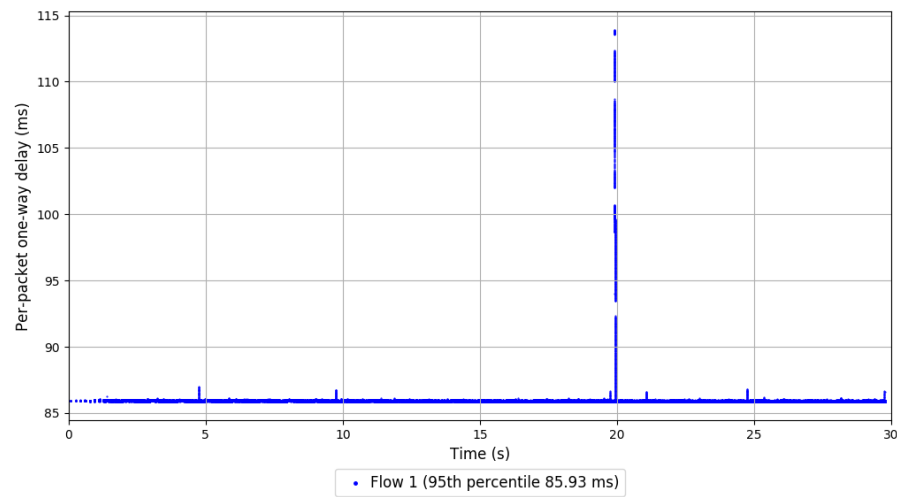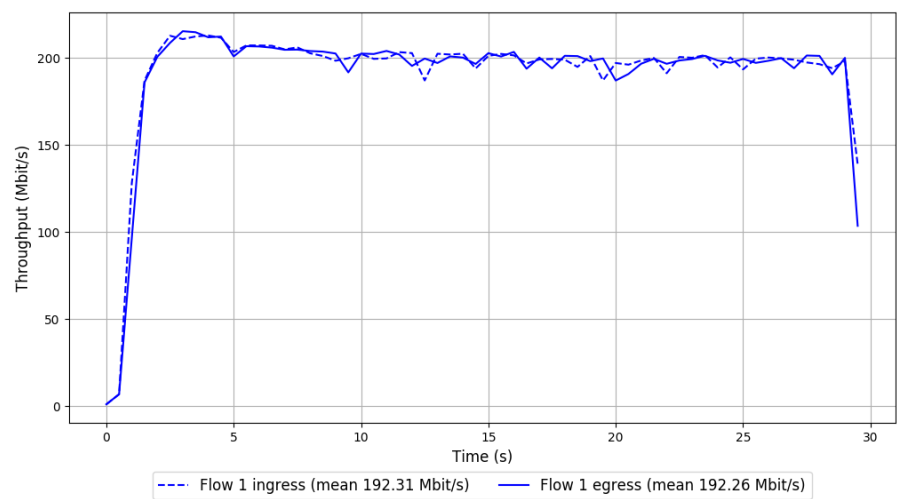
Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 192.31 Mbit/s) Flow 1 egress (mean 192.26 Mbit/s)
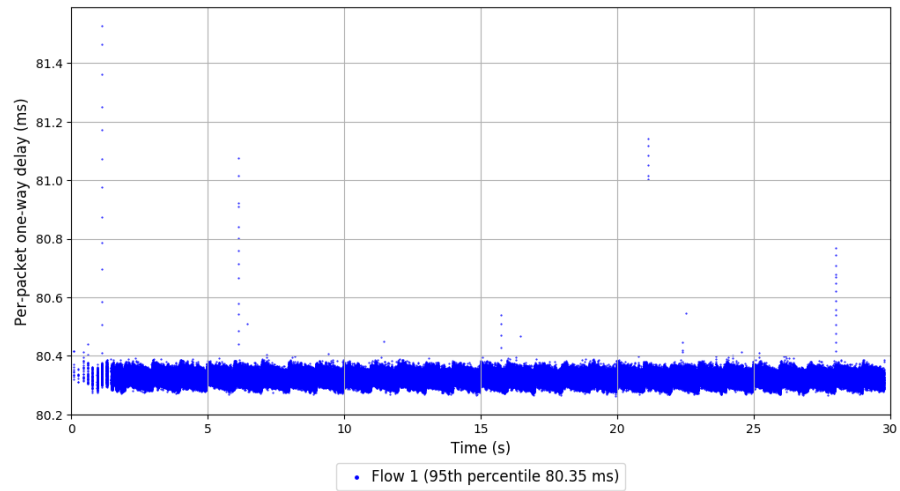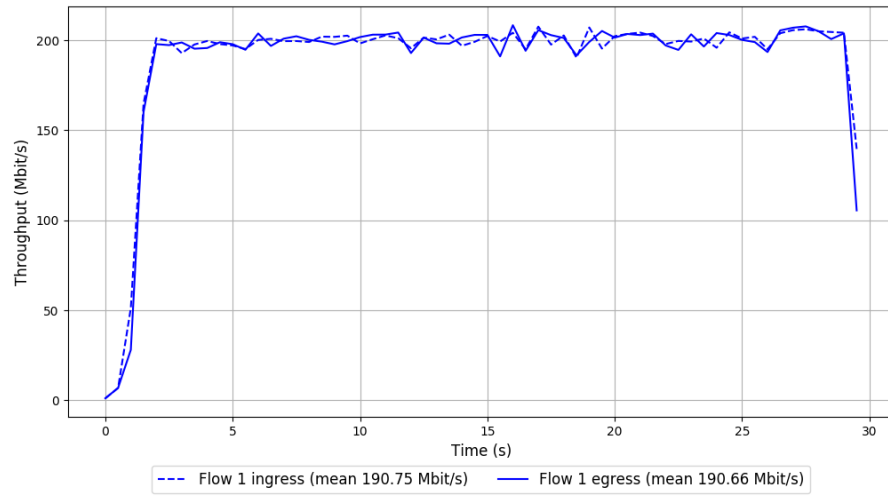

Flow 1 (95th percentile 85.93 ms)

```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-05 10:00:36
End at: 2017-12-05 10:01:06
Local clock offset: 1.225 ms
Remote clock offset: 3.817 ms


# Below is generated by plot.py at 2017-12-05 16:22:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.66 Mbit/s
95th percentile per-packet one-way delay: 80.354 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 190.66 Mbit/s
95th percentile per-packet one-way delay: 80.354 ms
Loss rate: 0.60%
```

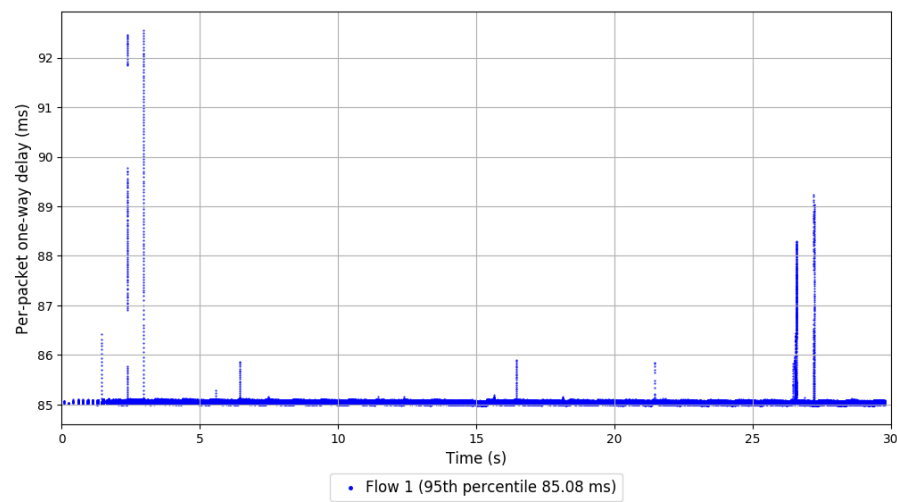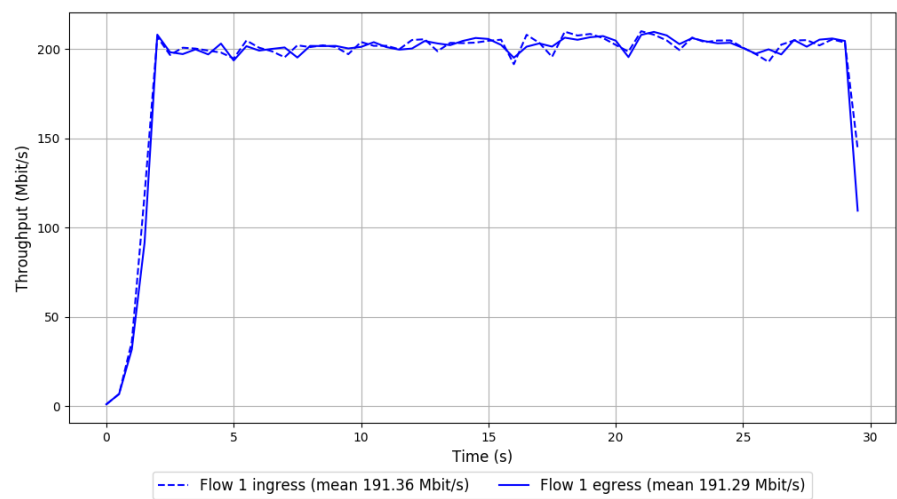Run 1: Report of Indigo-calib — Data Link

```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-05 10:18:44
End at: 2017-12-05 10:19:14
Local clock offset: 1.168 ms
Remote clock offset: -1.151 ms


# Below is generated by plot.py at 2017-12-05 16:22:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.29 Mbit/s
95th percentile per-packet one-way delay: 85.081 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 191.29 Mbit/s
95th percentile per-packet one-way delay: 85.081 ms
Loss rate: 0.59%
```

Run 2: Report of Indigo-calib — Data Link

```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-05 10:36:43
End at: 2017-12-05 10:37:13
Local clock offset: 1.653 ms
Remote clock offset: 3.041 ms


# Below is generated by plot.py at 2017-12-05 16:23:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.44 Mbit/s
95th percentile per-packet one-way delay: 79.043 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 192.44 Mbit/s
95th percentile per-packet one-way delay: 79.043 ms
Loss rate: 0.58%
```
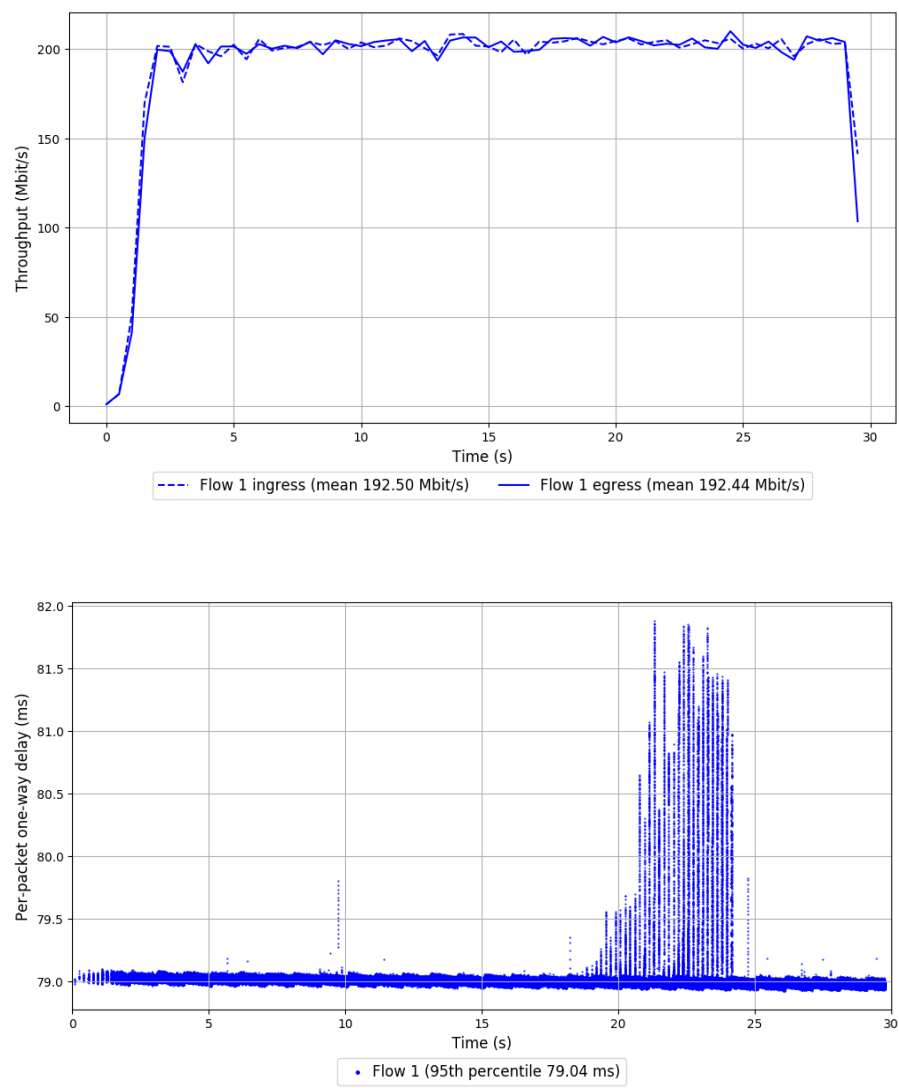
Run 3: Report of Indigo-calib — Data Link

```
Run 4: Statistics of Indigo-calib

Start at: 2017-12-05 10:54:45
End at: 2017-12-05 10:55:15
Local clock offset: 2.875 ms
Remote clock offset: -2.02 ms


# Below is generated by plot.py at 2017-12-05 16:23:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.28 Mbit/s
95th percentile per-packet one-way delay: 83.570 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 192.28 Mbit/s
95th percentile per-packet one-way delay: 83.570 ms
Loss rate: 0.58%
```
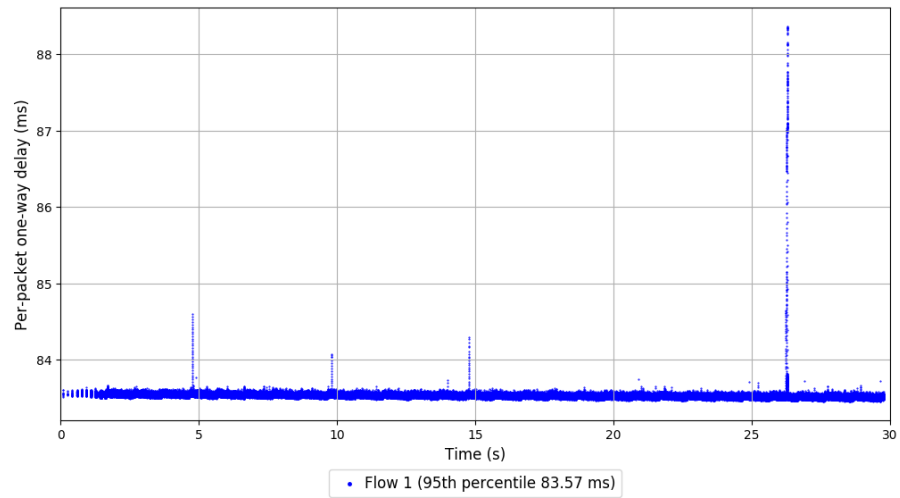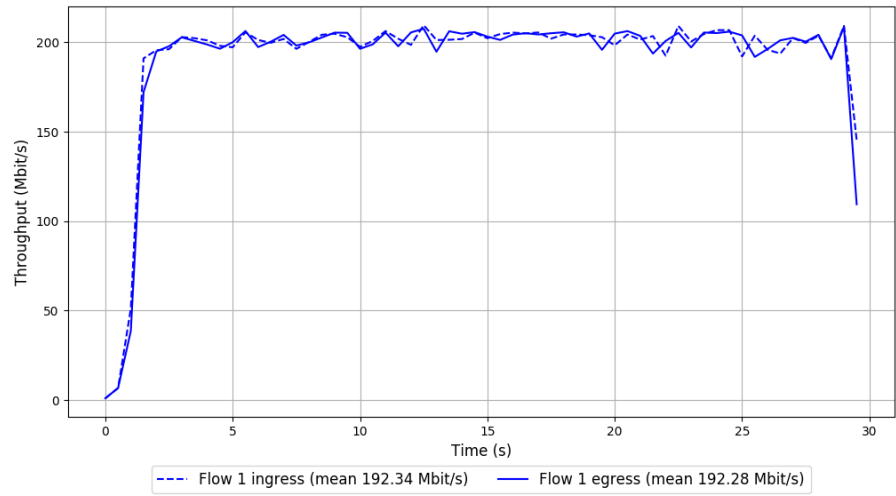
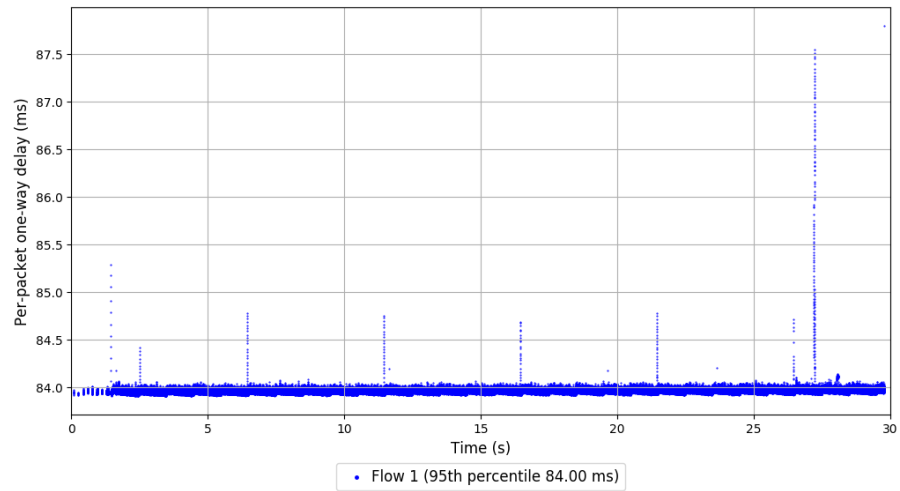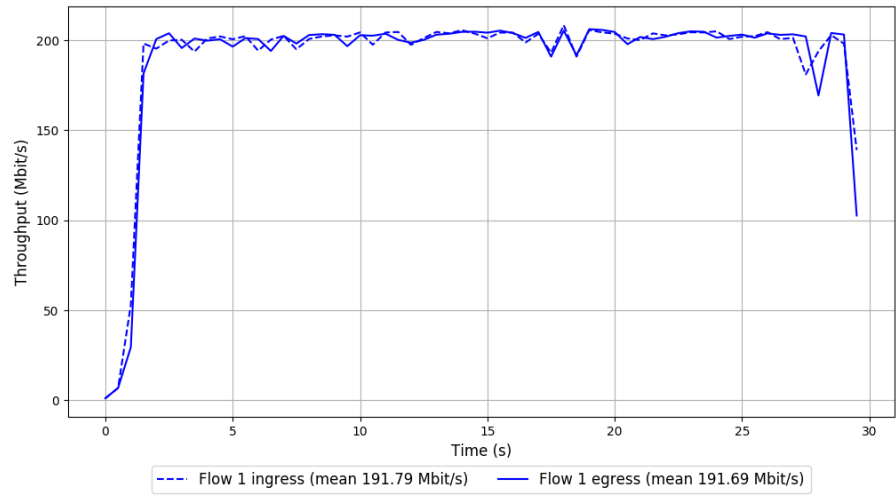# Run 4: Report of Indigo-calib — Data Link

```
Run 5: Statistics of Indigo-calib

Start at: 2017-12-05 11:12:32
End at: 2017-12-05 11:13:02
Local clock offset: 2.968 ms
Remote clock offset: -3.342 ms


# Below is generated by plot.py at 2017-12-05 16:23:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.69 Mbit/s
95th percentile per-packet one-way delay: 84.000 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 191.69 Mbit/s
95th percentile per-packet one-way delay: 84.000 ms
Loss rate: 0.58%
```

Run 5: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 191.79 Mbit/s)   Flow 1 egress (mean 191.69 Mbit/s)
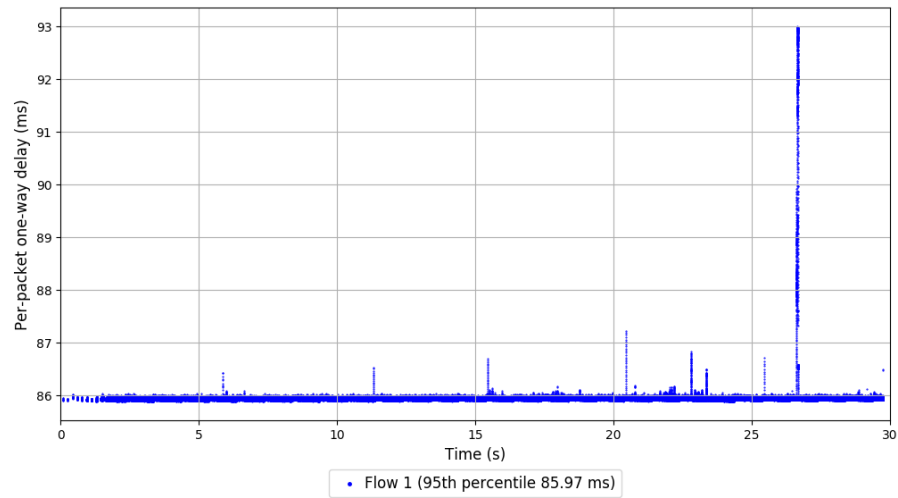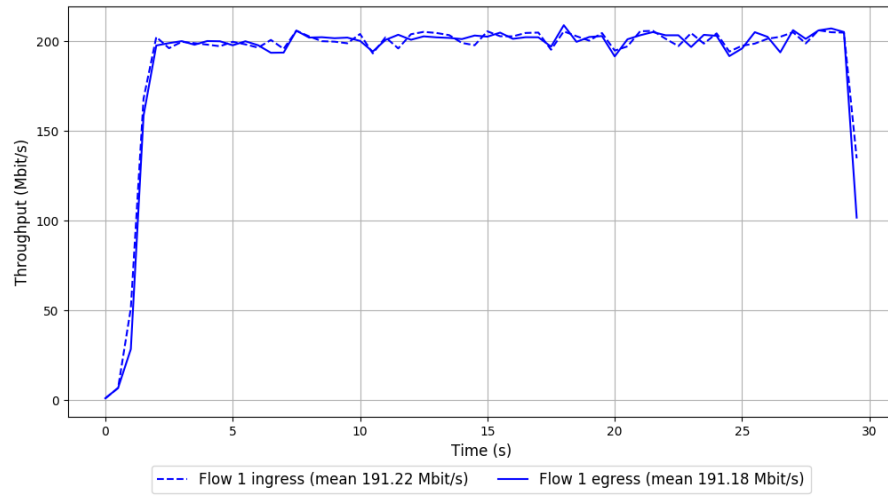

Flow 1 (95th percentile 84.00 ms)

```
Run 6: Statistics of Indigo-calib

Start at: 2017-12-05 11:30:50
End at: 2017-12-05 11:31:20
Local clock offset: 1.939 ms
Remote clock offset: -4.207 ms


# Below is generated by plot.py at 2017-12-05 16:23:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.18 Mbit/s
95th percentile per-packet one-way delay: 85.966 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 191.18 Mbit/s
95th percentile per-packet one-way delay: 85.966 ms
Loss rate: 0.58%
```

Run 6: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 191.22 Mbit/s)   Flow 1 egress (mean 191.18 Mbit/s)

Flow 1 (95th percentile 85.97 ms)

```
Run 7: Statistics of Indigo-calib

Start at: 2017-12-05 11:48:47
End at: 2017-12-05 11:49:17
Local clock offset: 1.279 ms
Remote clock offset: 1.013 ms


# Below is generated by plot.py at 2017-12-05 16:23:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.85 Mbit/s
95th percentile per-packet one-way delay: 81.912 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 190.85 Mbit/s
95th percentile per-packet one-way delay: 81.912 ms
Loss rate: 0.60%
```

Run 7: Report of Indigo-calib — Data Link

```
Run 8: Statistics of Indigo-calib

Start at: 2017-12-05 12:06:51
End at: 2017-12-05 12:07:21
Local clock offset: 0.951 ms
Remote clock offset: 0.349 ms


# Below is generated by plot.py at 2017-12-05 16:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.54 Mbit/s
95th percentile per-packet one-way delay: 79.913 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 190.54 Mbit/s
95th percentile per-packet one-way delay: 79.913 ms
Loss rate: 0.56%
```
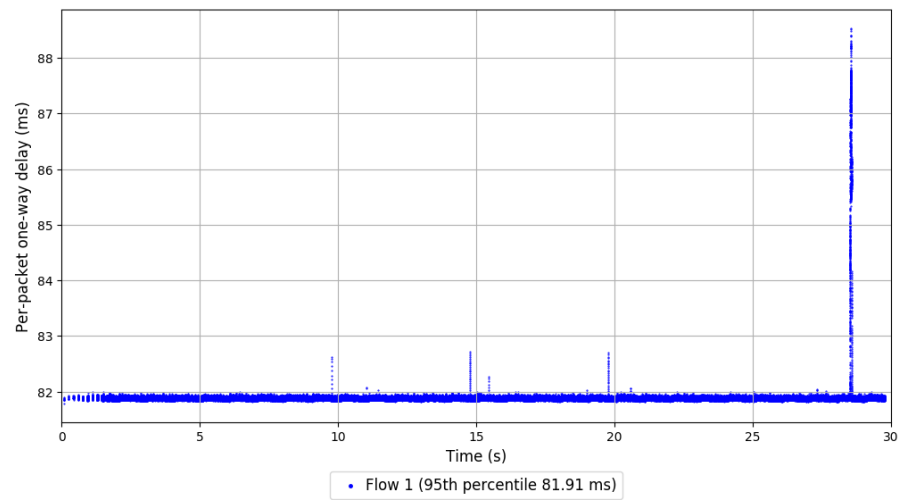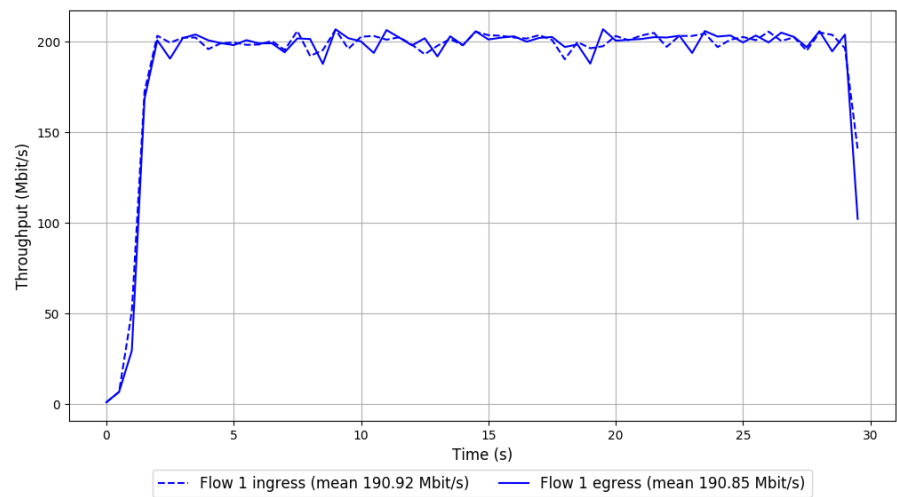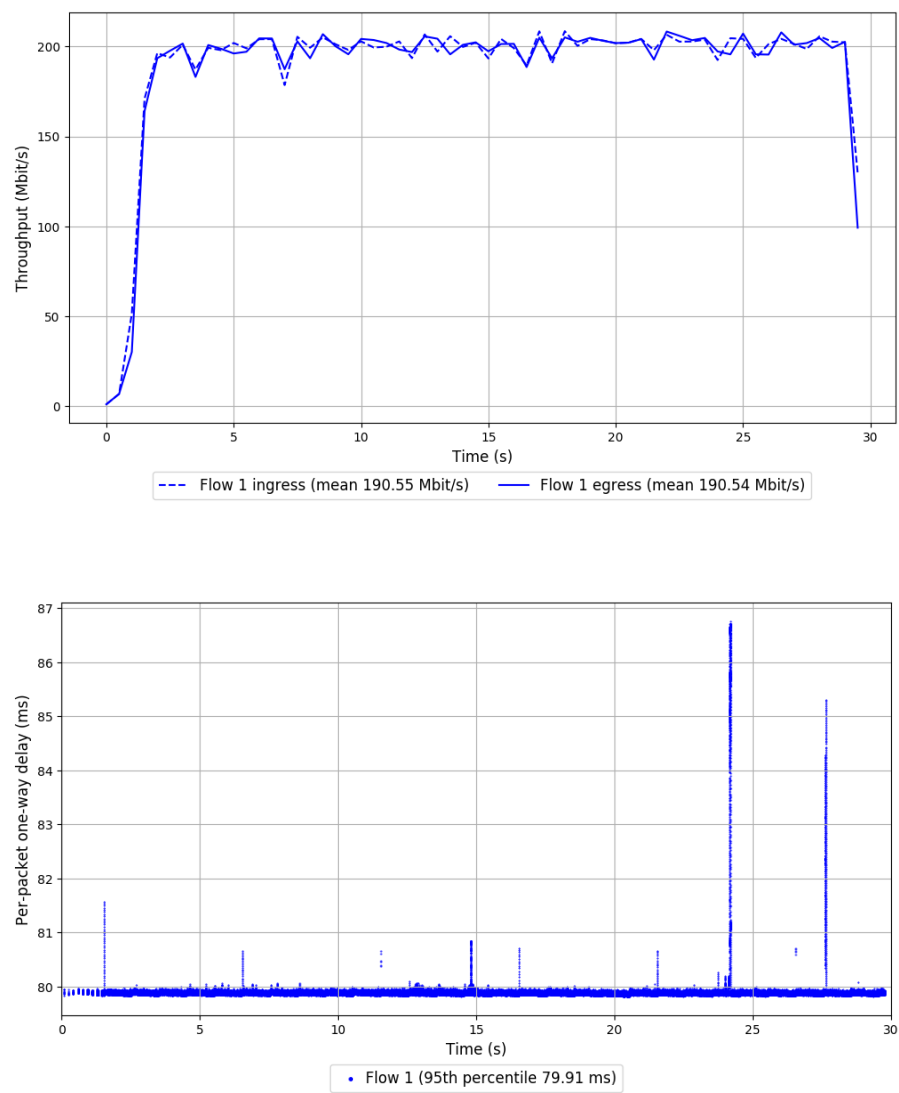
Run 8: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 190.55 Mbit/s) — Flow 1 egress (mean 190.54 Mbit/s)

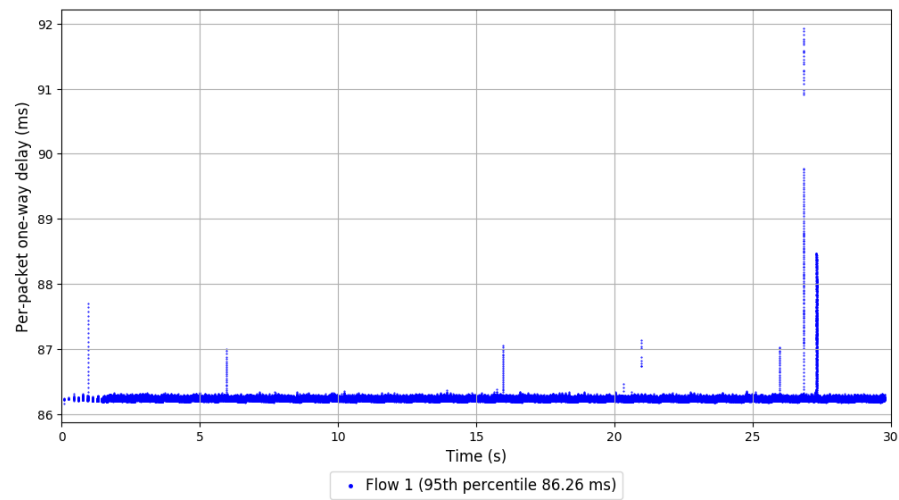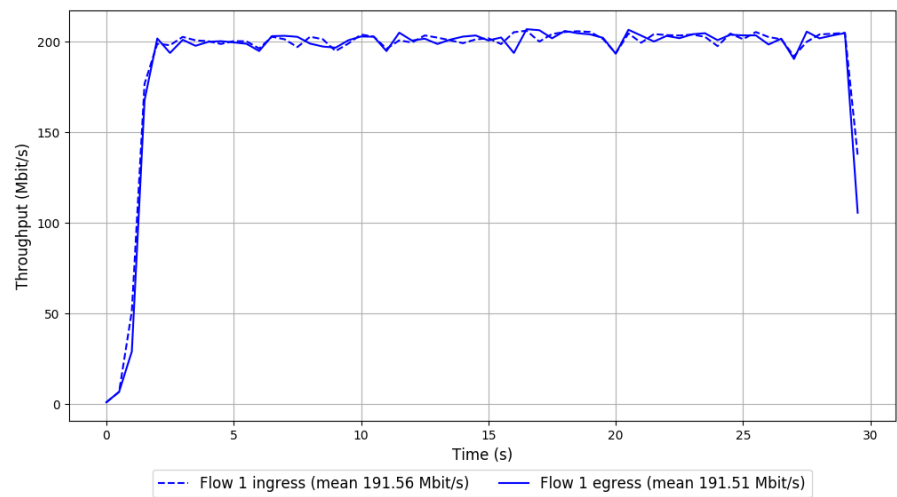

• Flow 1 (95th percentile 79.91 ms)

```
Run 9: Statistics of Indigo-calib

Start at: 2017-12-05 12:24:35
End at: 2017-12-05 12:25:05
Local clock offset: 0.502 ms
Remote clock offset: -6.215 ms


# Below is generated by plot.py at 2017-12-05 16:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.51 Mbit/s
95th percentile per-packet one-way delay: 86.264 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 191.51 Mbit/s
95th percentile per-packet one-way delay: 86.264 ms
Loss rate: 0.59%
```

Run 9: Report of Indigo-calib — Data Link

```
Run 10: Statistics of Indigo-calib

Start at: 2017-12-05 12:42:49
End at: 2017-12-05 12:43:19
Local clock offset: 0.041 ms
Remote clock offset: -5.763 ms


# Below is generated by plot.py at 2017-12-05 16:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.74 Mbit/s
95th percentile per-packet one-way delay: 85.108 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 189.74 Mbit/s
95th percentile per-packet one-way delay: 85.108 ms
Loss rate: 0.58%
```

Run 10: Report of Indigo-calib — Data Link