Pantheon Report

Generated at 2017-12-11 19:23:11 (UTC).

Data path: AWS California 1 Ethernet (*local*) →Stanford Ethernet (*remote*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

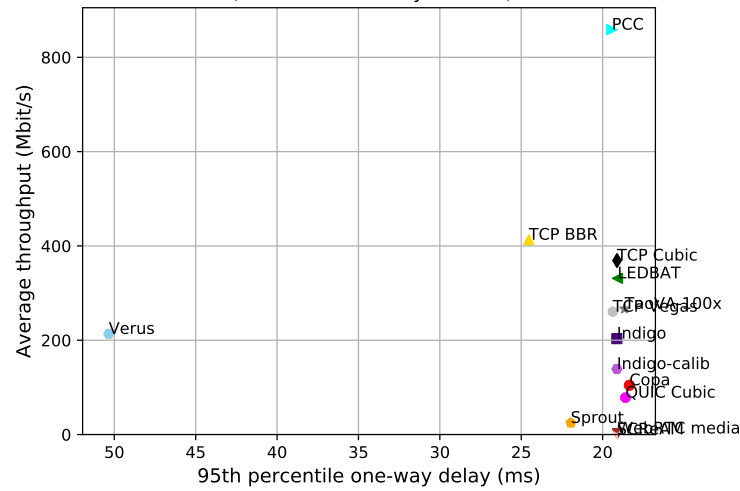Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

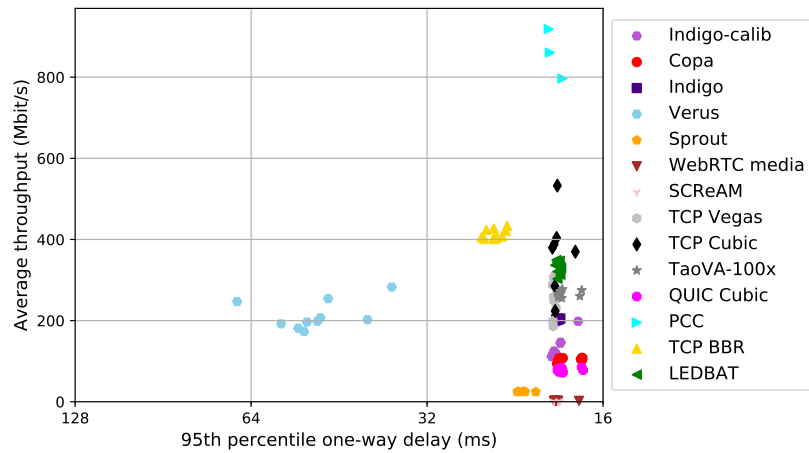NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
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 AWS California 1 Ethernet to Stanford Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from AWS California 1 Ethernet to Stanford Ethernet, 10 runs of 30s each per scheme

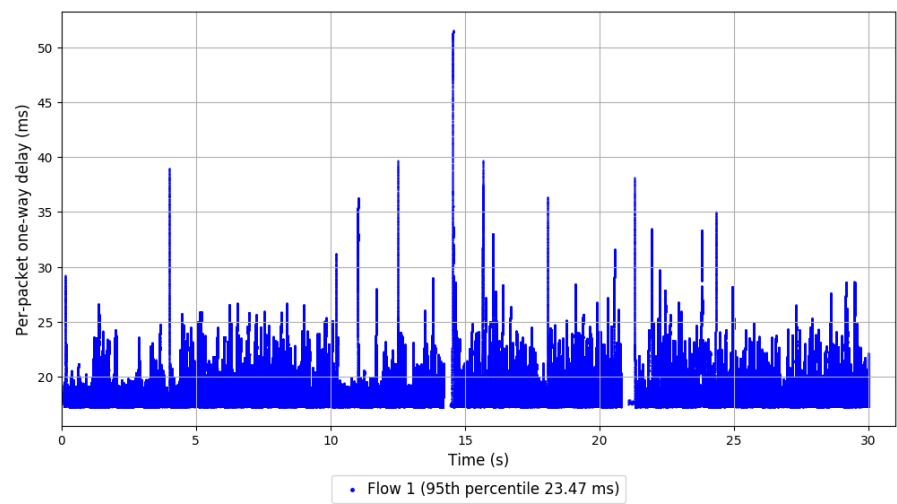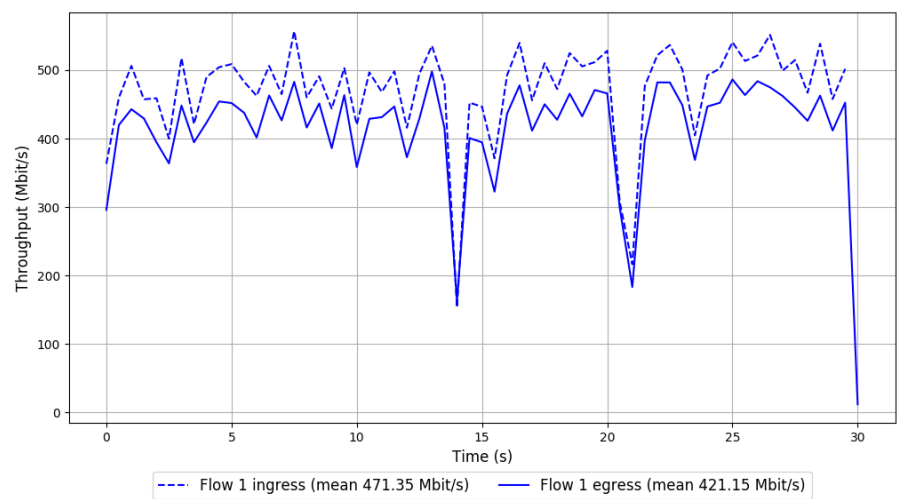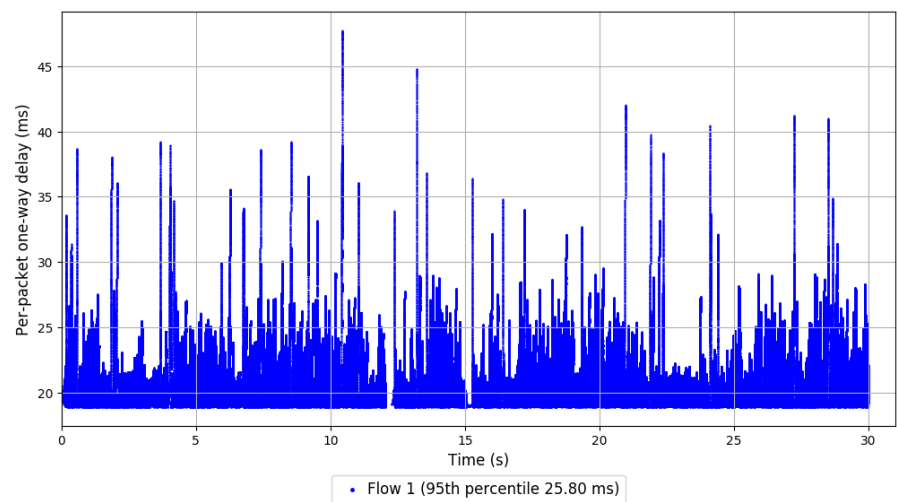| scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	413.13	24.54	10.74
TCP Cubic	7	368.99	19.12	0.06
LEDBAT	10	331.24	19.09	0.01
PCC	3	858.63	19.44	0.23
QUIC Cubic	10	78.31	18.60	0.00
SCReAM	4	0.22	19.13	0.00
WebRTC media	10	2.31	19.10	0.00
Sprout	10	24.69	21.96	0.02
TaoVA-100x	10	266.59	18.65	0.02
TCP Vegas	10	260.56	19.38	0.03
Verus	10	213.44	50.34	22.40
Copa	10	104.49	18.36	0.00
Indigo	10	203.47	19.13	0.00
Indigo-calib	10	139.00	19.13	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2017-12-11 14:10:02
End at: 2017-12-11 14:10:32
Local clock offset: -7.268 ms
Remote clock offset: -0.547 ms

# Below is generated by plot.py at 2017-12-11 18:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 407.89 Mbit/s
95th percentile per-packet one-way delay: 23.822 ms
Loss rate: 10.04%
-- Flow 1:
Average throughput: 407.89 Mbit/s
95th percentile per-packet one-way delay: 23.822 ms
Loss rate: 10.04%
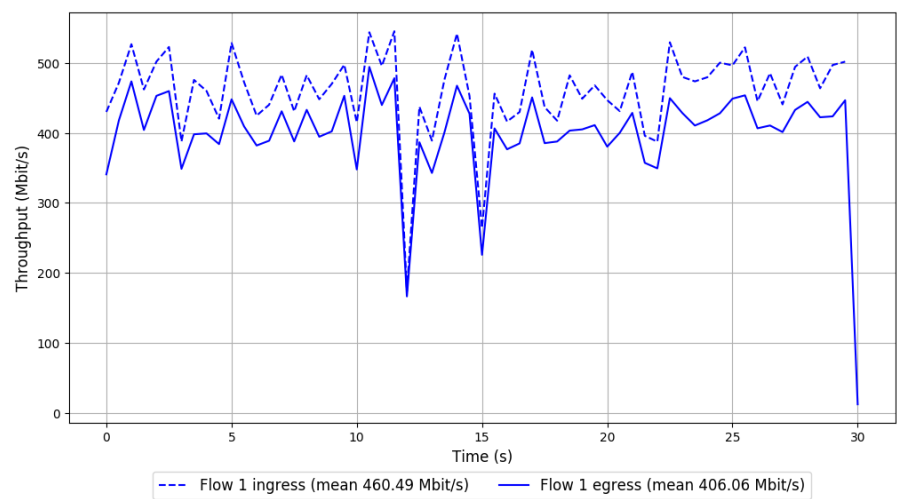```

Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-12-11 14:28:20
End at: 2017-12-11 14:28:50
Local clock offset: -7.056 ms
Remote clock offset: -0.895 ms

Below is generated by plot.py at 2017-12-11 18:32:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 421.15 Mbit/s
95th percentile per-packet one-way delay: 23.474 ms
Loss rate: 10.65%
-- Flow 1:
Average throughput: 421.15 Mbit/s
95th percentile per-packet one-way delay: 23.474 ms
Loss rate: 10.65%
```
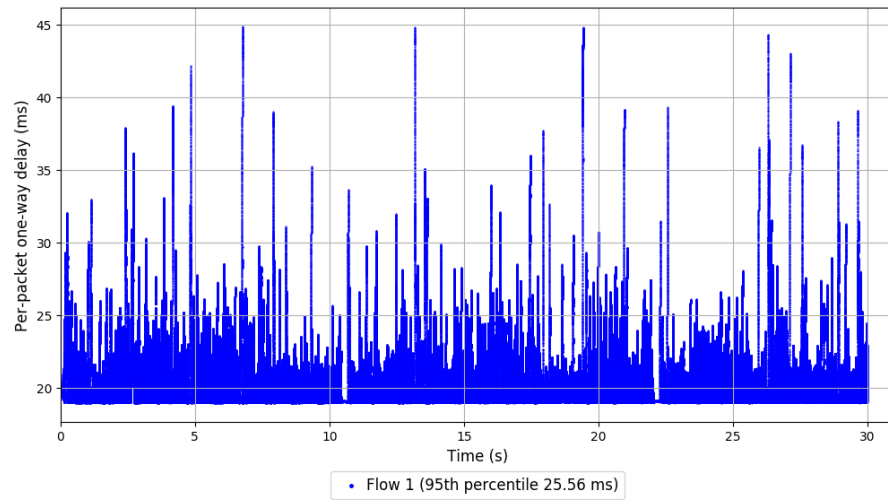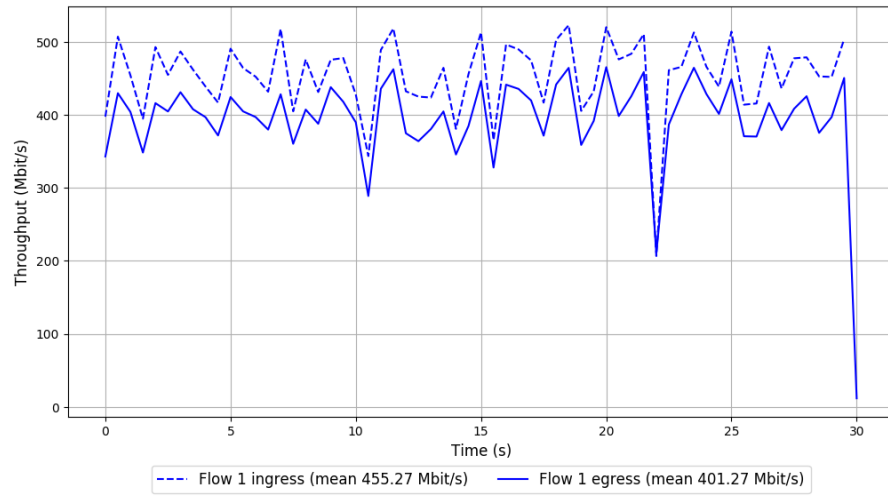
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2017-12-11 14:46:50
End at: 2017-12-11 14:47:20
Local clock offset: -7.012 ms
Remote clock offset: -0.872 ms

Below is generated by plot.py at 2017-12-11 18:32:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 406.06 Mbit/s
95th percentile per-packet one-way delay: 25.802 ms
Loss rate: 11.82%
-- Flow 1:
Average throughput: 406.06 Mbit/s
95th percentile per-packet one-way delay: 25.802 ms
Loss rate: 11.82%
```
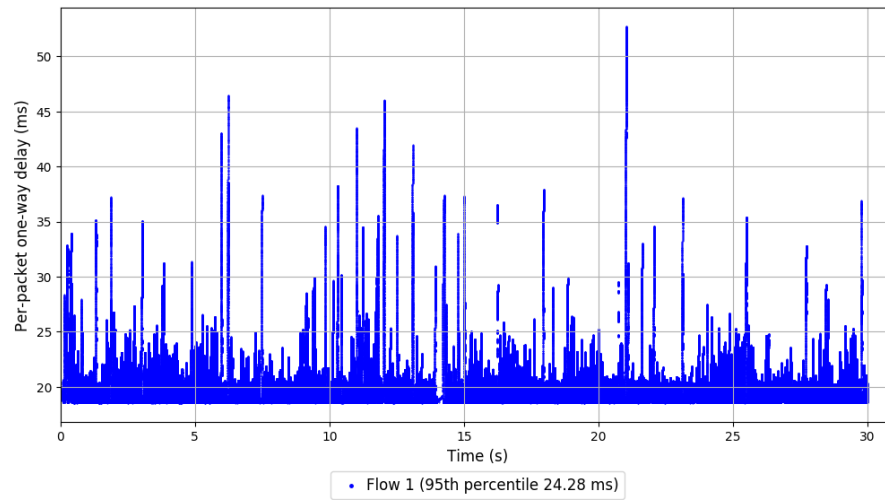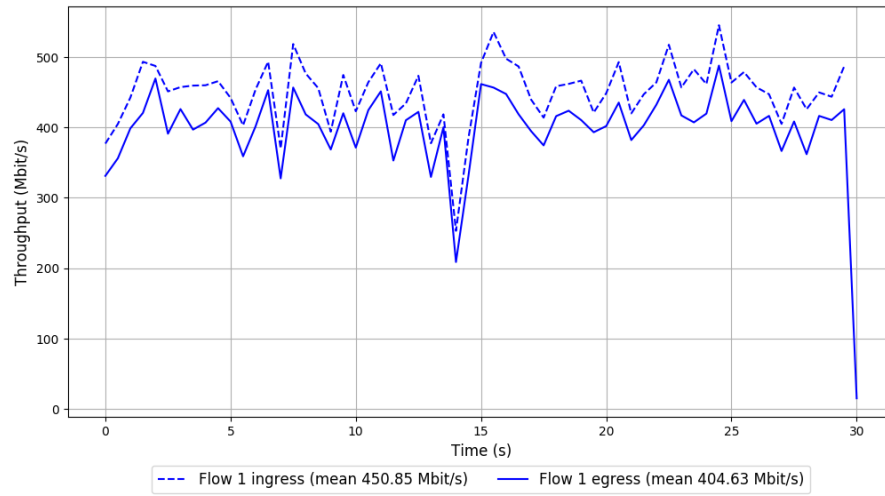
Run 3: Report of TCP BBR — Data Link



Flow 1 ingress (mean 460.49 Mbit/s) — — — Flow 1 egress (mean 406.06 Mbit/s)



• Flow 1 (95th percentile 25.80 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2017-12-11 15:05:44
End at: 2017-12-11 15:06:14
Local clock offset: -6.915 ms
Remote clock offset: -0.742 ms

Below is generated by plot.py at 2017-12-11 18:32:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 401.27 Mbit/s
95th percentile per-packet one-way delay: 25.561 ms
Loss rate: 11.86%
-- Flow 1:
Average throughput: 401.27 Mbit/s
95th percentile per-packet one-way delay: 25.561 ms
Loss rate: 11.86%
```
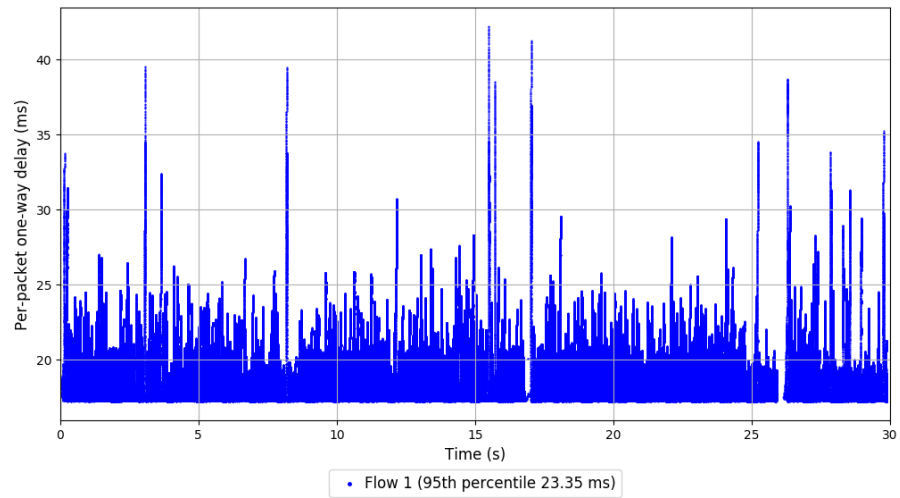
Run 4: Report of TCP BBR — Data Link



Flow 1 ingress (mean 455.27 Mbit/s) --- Flow 1 egress (mean 401.27 Mbit/s)



Flow 1 (95th percentile 25.56 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2017-12-11 15:24:14
End at: 2017-12-11 15:24:44
Local clock offset: -6.686 ms
Remote clock offset: -1.163 ms

Below is generated by plot.py at 2017-12-11 18:32:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 404.63 Mbit/s
95th percentile per-packet one-way delay: 24.280 ms
Loss rate: 10.25%
-- Flow 1:
Average throughput: 404.63 Mbit/s
95th percentile per-packet one-way delay: 24.280 ms
Loss rate: 10.25%
```
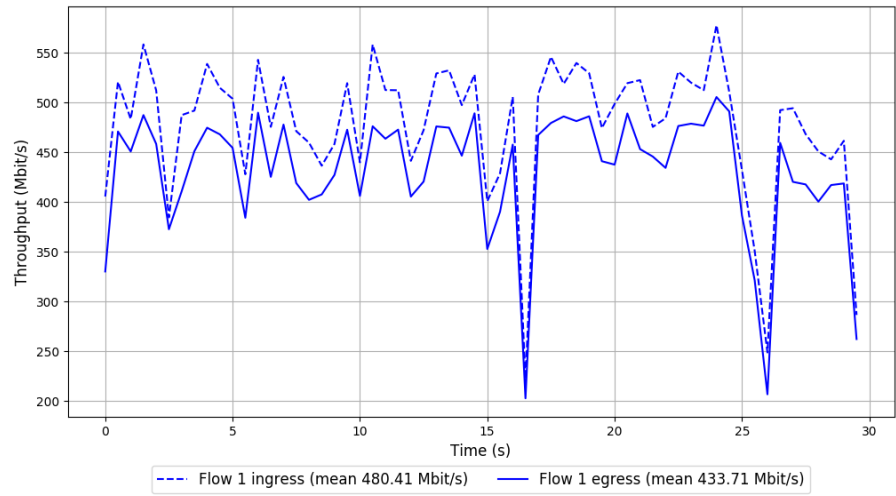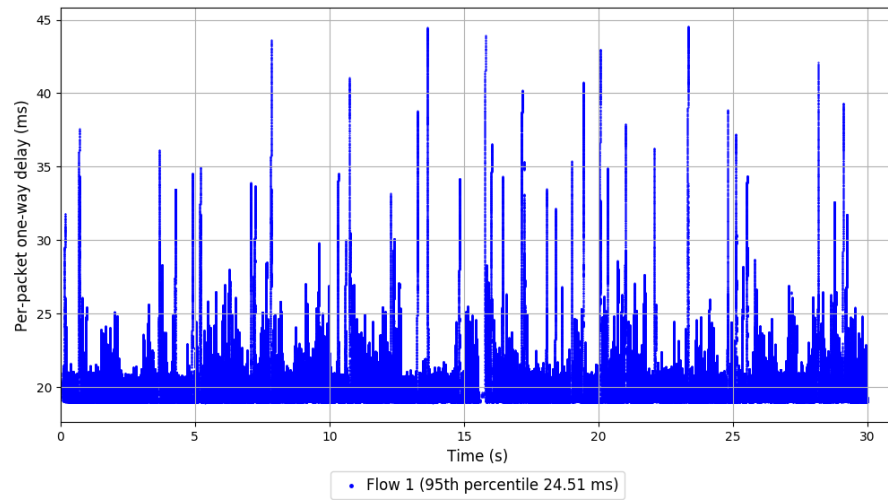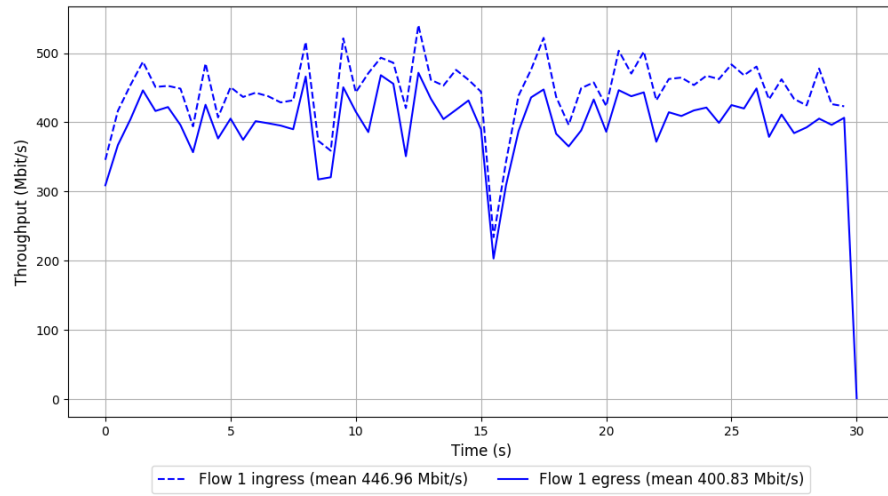
Run 5: Report of TCP BBR — Data Link



Flow 1 ingress (mean 450.85 Mbit/s)    Flow 1 egress (mean 404.63 Mbit/s)



Flow 1 (95th percentile 24.28 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2017-12-11 15:42:52
End at: 2017-12-11 15:43:22
Local clock offset: -6.674 ms
Remote clock offset: -0.83 ms

Below is generated by plot.py at 2017-12-11 18:32:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 433.71 Mbit/s
95th percentile per-packet one-way delay: 23.353 ms
Loss rate: 9.72%
-- Flow 1:
Average throughput: 433.71 Mbit/s
95th percentile per-packet one-way delay: 23.353 ms
Loss rate: 9.72%
```
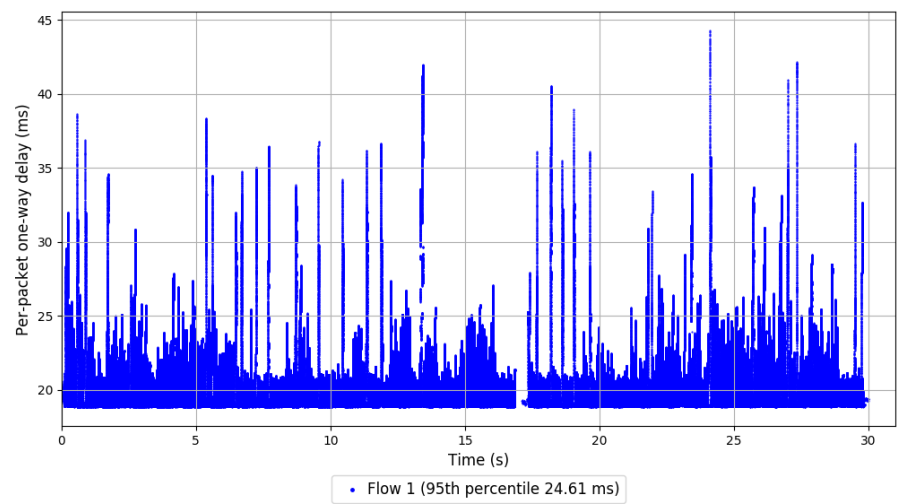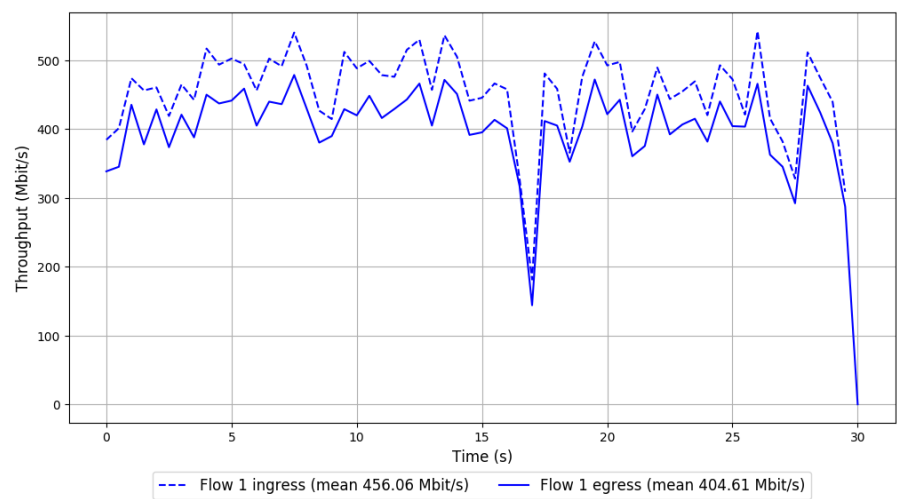
Run 6: Report of TCP BBR — Data Link



Flow 1 ingress (mean 480.41 Mbit/s)    Flow 1 egress (mean 433.71 Mbit/s)



Flow 1 (95th percentile 23.35 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2017-12-11 16:01:22
End at: 2017-12-11 16:01:52
Local clock offset: -6.466 ms
Remote clock offset: -0.849 ms

Below is generated by plot.py at 2017-12-11 18:32:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 400.83 Mbit/s
95th percentile per-packet one-way delay: 24.511 ms
Loss rate: 10.32%
-- Flow 1:
Average throughput: 400.83 Mbit/s
95th percentile per-packet one-way delay: 24.511 ms
Loss rate: 10.32%
```
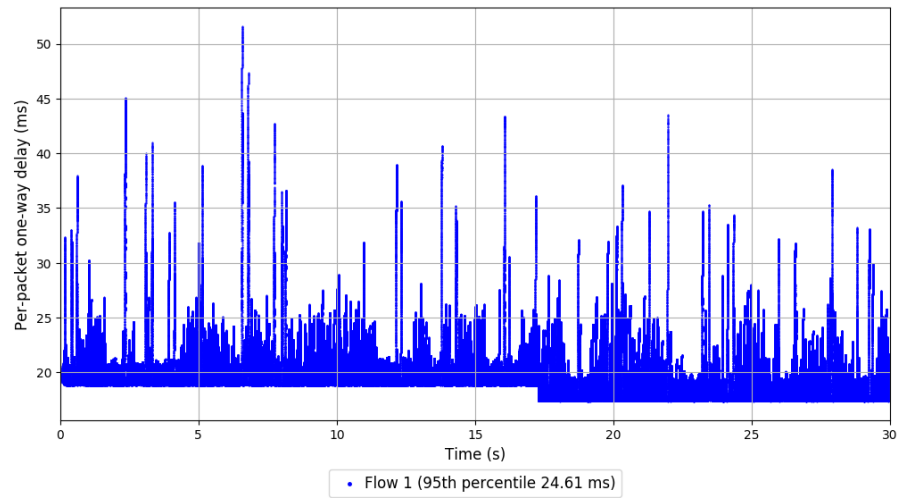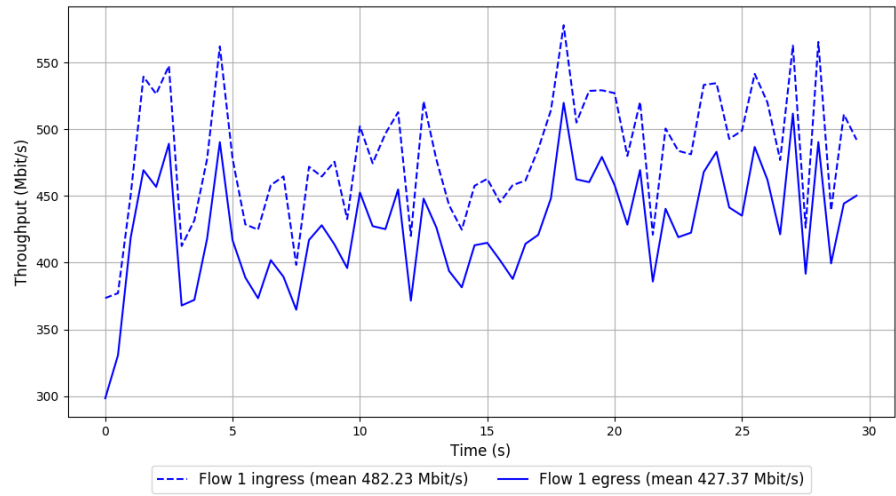
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2017-12-11 16:19:56
End at: 2017-12-11 16:20:26
Local clock offset: -4.852 ms
Remote clock offset: -0.72 ms

Below is generated by plot.py at 2017-12-11 18:32:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 404.61 Mbit/s
95th percentile per-packet one-way delay: 24.606 ms
Loss rate: 11.28%
-- Flow 1:
Average throughput: 404.61 Mbit/s
95th percentile per-packet one-way delay: 24.606 ms
Loss rate: 11.28%
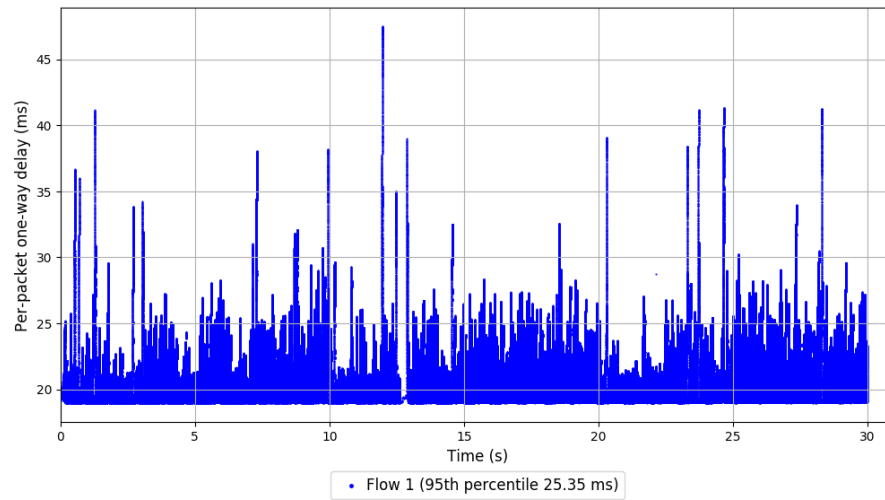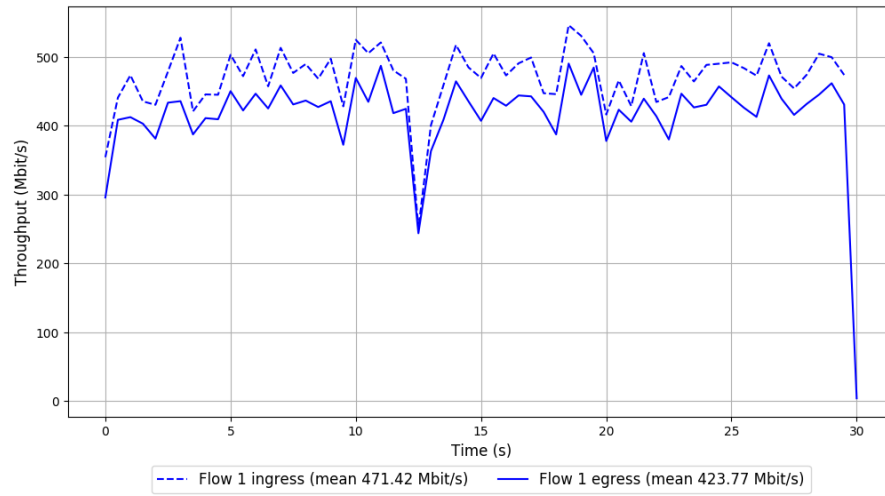```

Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 456.06 Mbit/s)   Flow 1 egress (mean 404.61 Mbit/s)

Flow 1 (95th percentile 24.61 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2017-12-11 16:38:27
End at: 2017-12-11 16:38:57
Local clock offset: -4.475 ms
Remote clock offset: -0.332 ms


# Below is generated by plot.py at 2017-12-11 18:38:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 427.37 Mbit/s
95th percentile per-packet one-way delay: 24.609 ms
Loss rate: 11.38%
-- Flow 1:
Average throughput: 427.37 Mbit/s
95th percentile per-packet one-way delay: 24.609 ms
Loss rate: 11.38%
```

Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 482.23 Mbit/s)   Flow 1 egress (mean 427.37 Mbit/s)

• Flow 1 (95th percentile 24.61 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2017-12-11 16:57:12
End at: 2017-12-11 16:57:42
Local clock offset: -2.981 ms
Remote clock offset: -0.539 ms


# Below is generated by plot.py at 2017-12-11 18:38:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 423.77 Mbit/s
95th percentile per-packet one-way delay: 25.346 ms
Loss rate: 10.10%
-- Flow 1:
Average throughput: 423.77 Mbit/s
95th percentile per-packet one-way delay: 25.346 ms
Loss rate: 10.10%
```

Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-12-11 14:03:39
End at: 2017-12-11 14:04:09
Local clock offset: -7.409 ms
Remote clock offset: -0.678 ms
```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2017-12-11 14:22:04
End at: 2017-12-11 14:22:34
Local clock offset: -7.01 ms
Remote clock offset: -0.786 ms
```
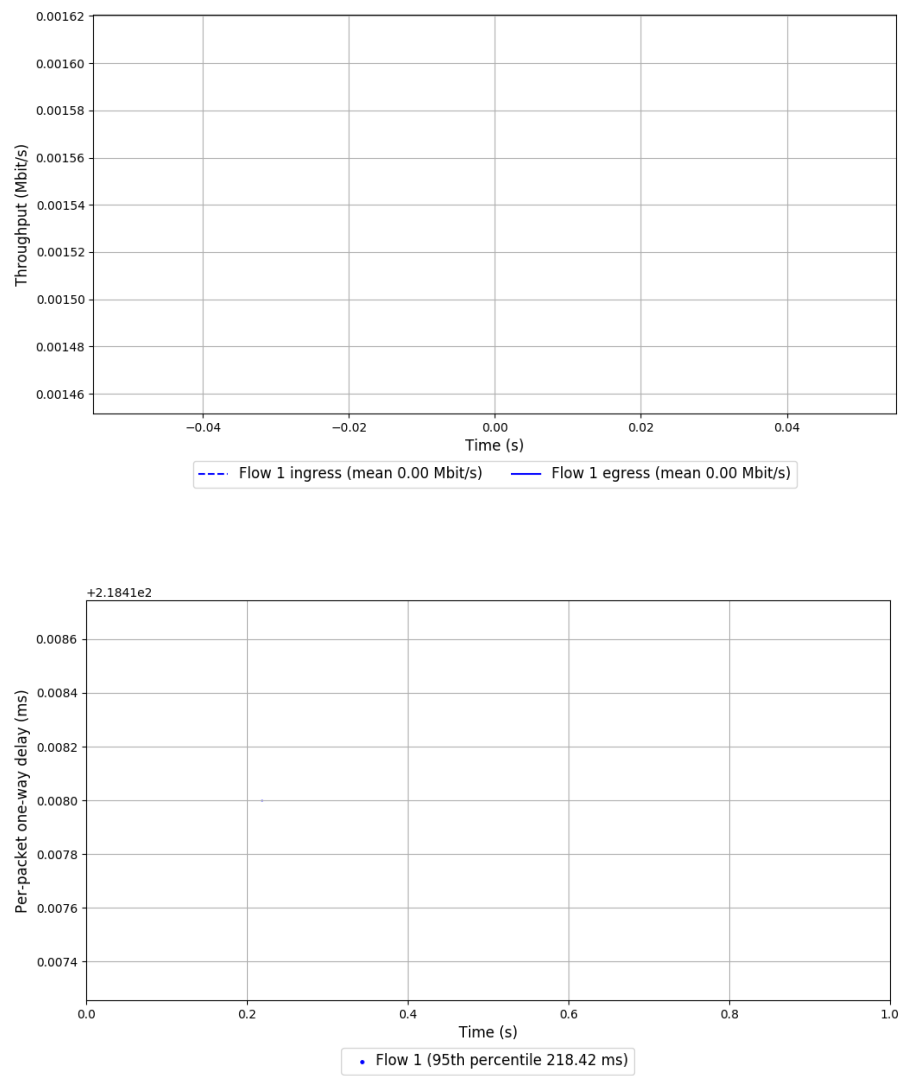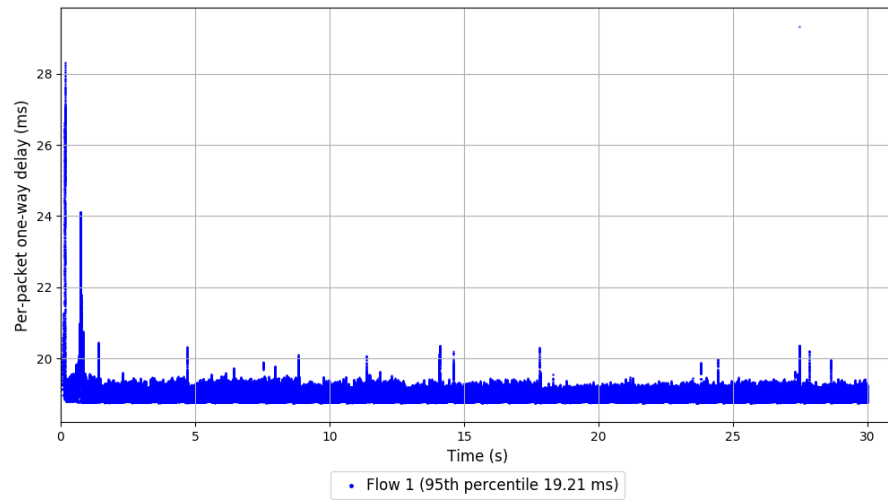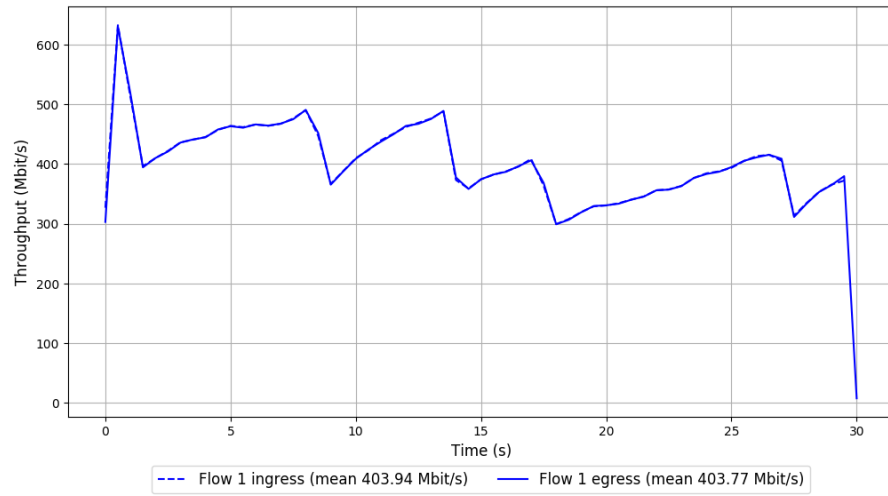
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s)   Flow 1 egress (mean 12.39 Mbit/s)
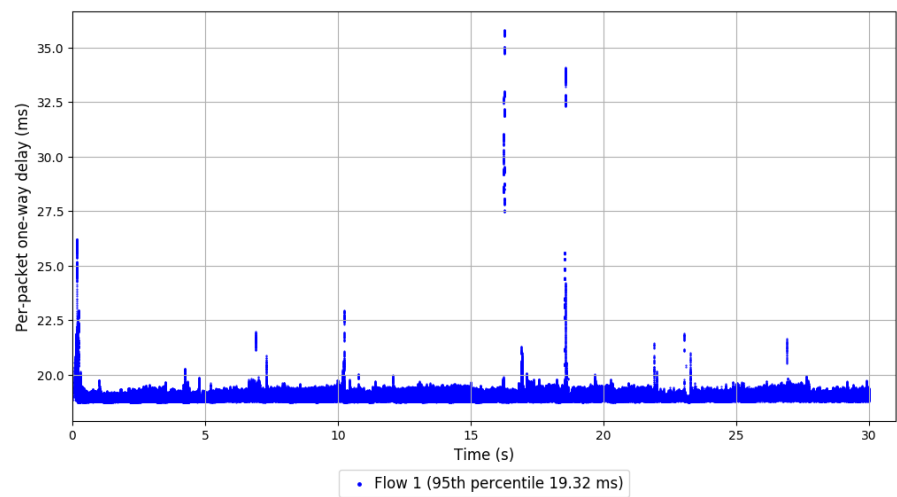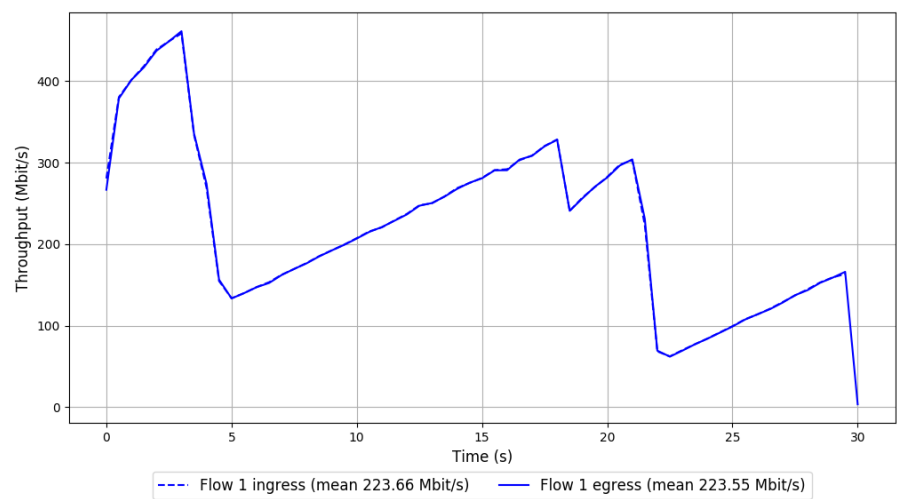

Flow 1 (95th percentile 1237.86 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2017-12-11 14:40:37
End at: 2017-12-11 14:41:07
Local clock offset: -7.036 ms
Remote clock offset: -0.836 ms
```

Run 3: Report of TCP Cubic — Data Link

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

Flow 1 (95th percentile 218.42 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2017-12-11 14:59:14
End at: 2017-12-11 14:59:44
Local clock offset: -6.922 ms
Remote clock offset: -0.687 ms


# Below is generated by plot.py at 2017-12-11 18:38:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 403.77 Mbit/s
95th percentile per-packet one-way delay: 19.214 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 403.77 Mbit/s
95th percentile per-packet one-way delay: 19.214 ms
Loss rate: 0.04%
```
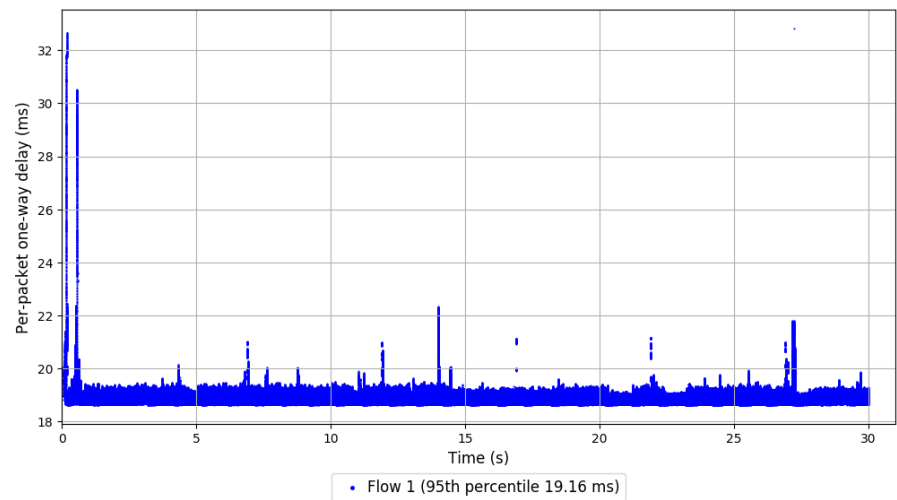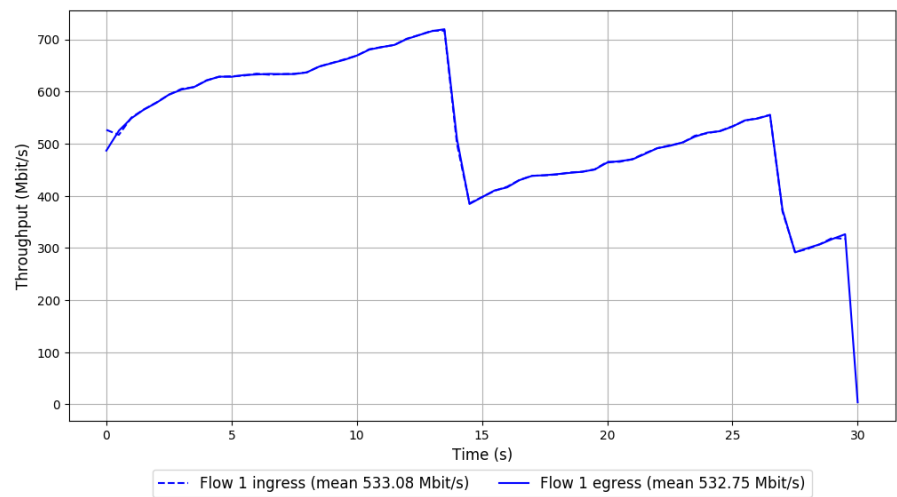
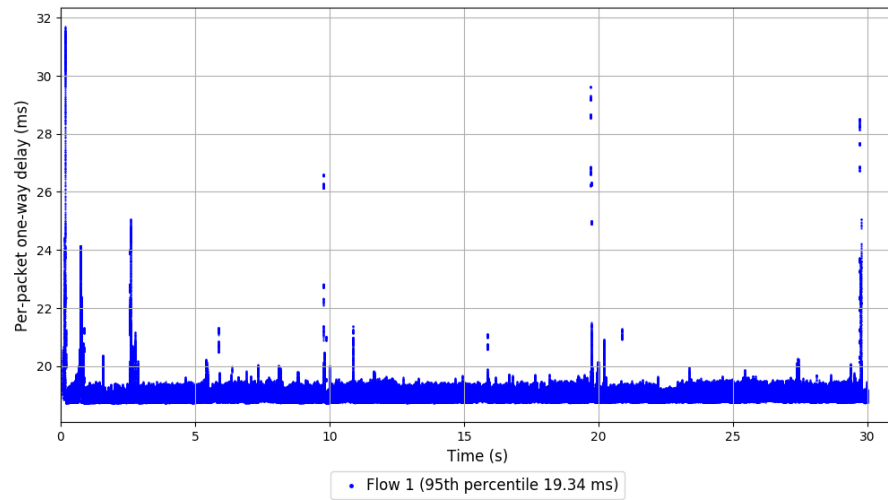Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2017-12-11 15:17:49
End at: 2017-12-11 15:18:19
Local clock offset: -6.793 ms
Remote clock offset: -1.007 ms


# Below is generated by plot.py at 2017-12-11 18:38:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.55 Mbit/s
95th percentile per-packet one-way delay: 19.321 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 223.55 Mbit/s
95th percentile per-packet one-way delay: 19.321 ms
Loss rate: 0.05%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 223.66 Mbit/s)   Flow 1 egress (mean 223.55 Mbit/s)
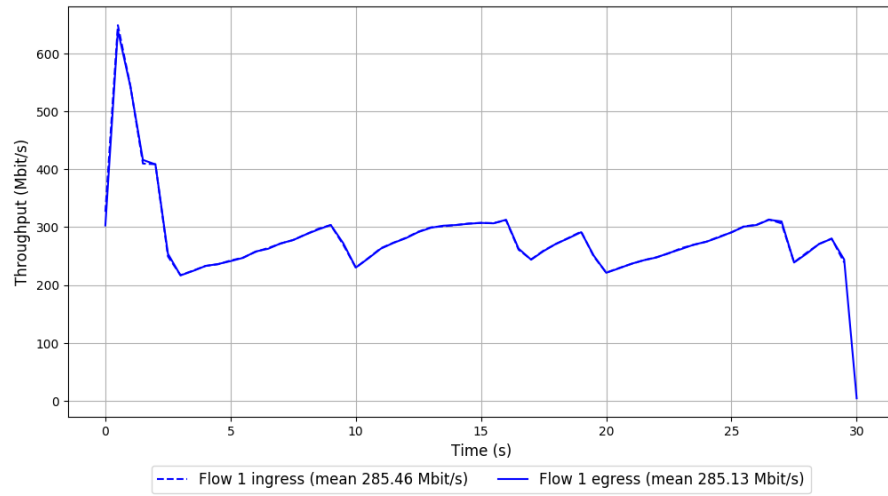

Flow 1 (95th percentile 19.32 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2017-12-11 15:36:16
End at: 2017-12-11 15:36:46
Local clock offset: -6.666 ms
Remote clock offset: -0.987 ms


# Below is generated by plot.py at 2017-12-11 18:39:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 532.75 Mbit/s
95th percentile per-packet one-way delay: 19.156 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 532.75 Mbit/s
95th percentile per-packet one-way delay: 19.156 ms
Loss rate: 0.06%
```
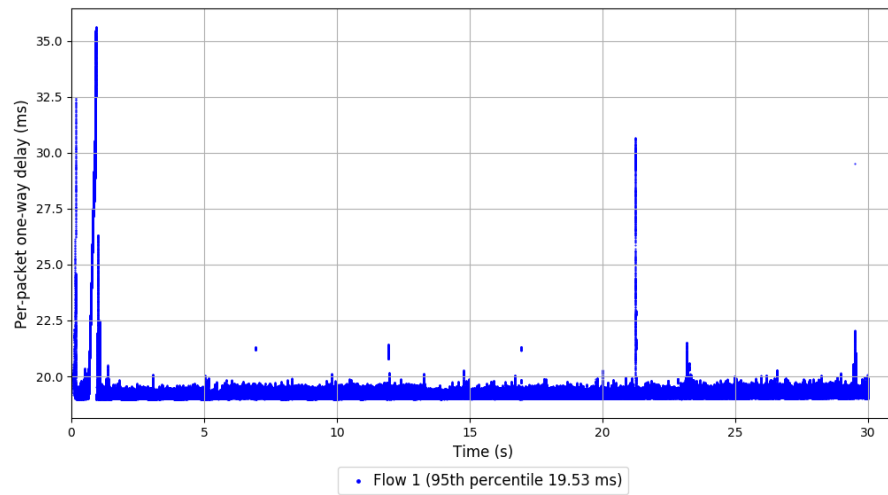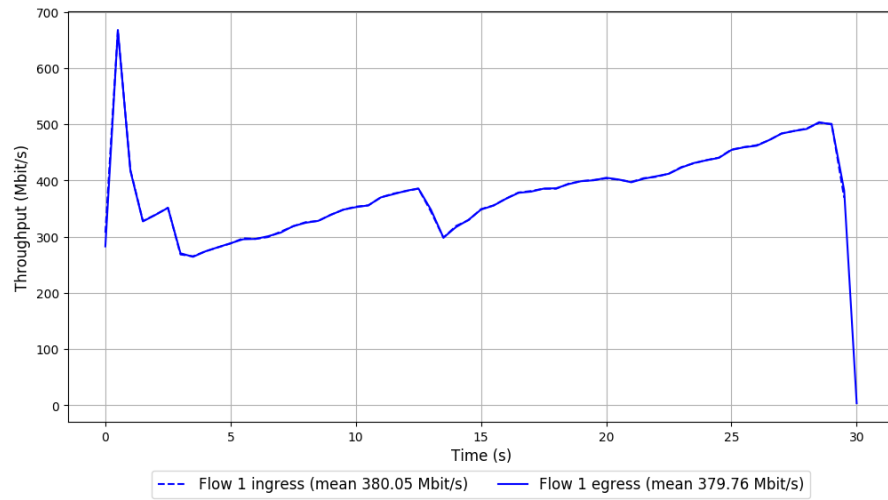
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2017-12-11 15:54:54
End at: 2017-12-11 15:55:24
Local clock offset: -6.595 ms
Remote clock offset: -0.711 ms


# Below is generated by plot.py at 2017-12-11 18:39:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.13 Mbit/s
95th percentile per-packet one-way delay: 19.341 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 285.13 Mbit/s
95th percentile per-packet one-way delay: 19.341 ms
Loss rate: 0.11%
```
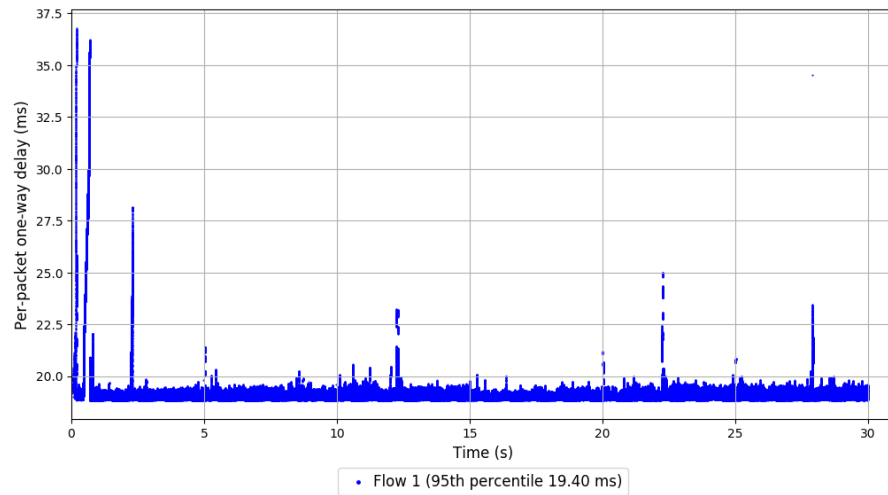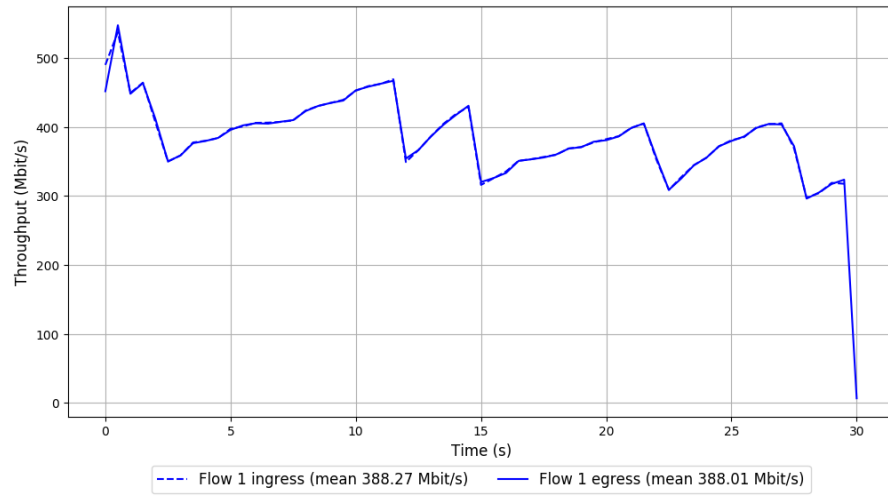
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 285.46 Mbit/s)   Flow 1 egress (mean 285.13 Mbit/s)

Flow 1 (95th percentile 19.34 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2017-12-11 16:13:23
End at: 2017-12-11 16:13:53
Local clock offset: -5.324 ms
Remote clock offset: -0.662 ms


# Below is generated by plot.py at 2017-12-11 18:39:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 379.76 Mbit/s
95th percentile per-packet one-way delay: 19.531 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 379.76 Mbit/s
95th percentile per-packet one-way delay: 19.531 ms
Loss rate: 0.08%
```
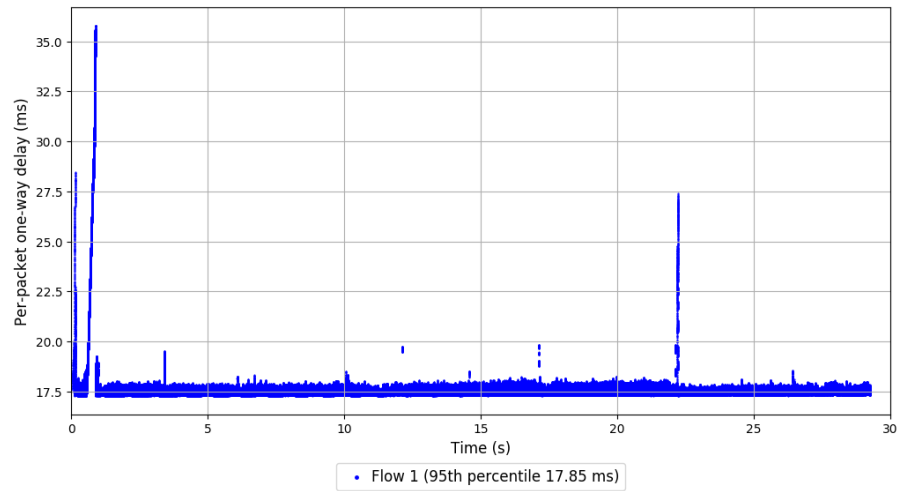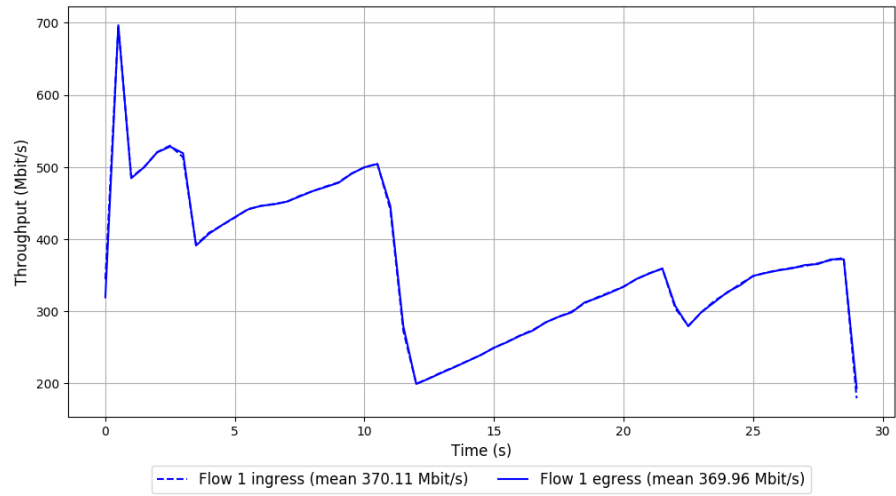
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 380.05 Mbit/s)   Flow 1 egress (mean 379.76 Mbit/s)

Flow 1 (95th percentile 19.53 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2017-12-11 16:31:57
End at: 2017-12-11 16:32:27
Local clock offset: -4.44 ms
Remote clock offset: -0.548 ms


# Below is generated by plot.py at 2017-12-11 18:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 388.01 Mbit/s
95th percentile per-packet one-way delay: 19.397 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 388.01 Mbit/s
95th percentile per-packet one-way delay: 19.397 ms
Loss rate: 0.07%
```
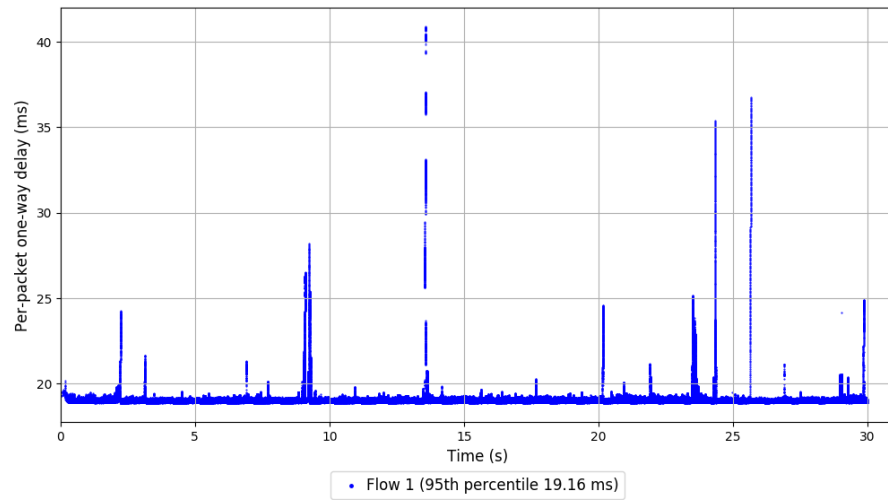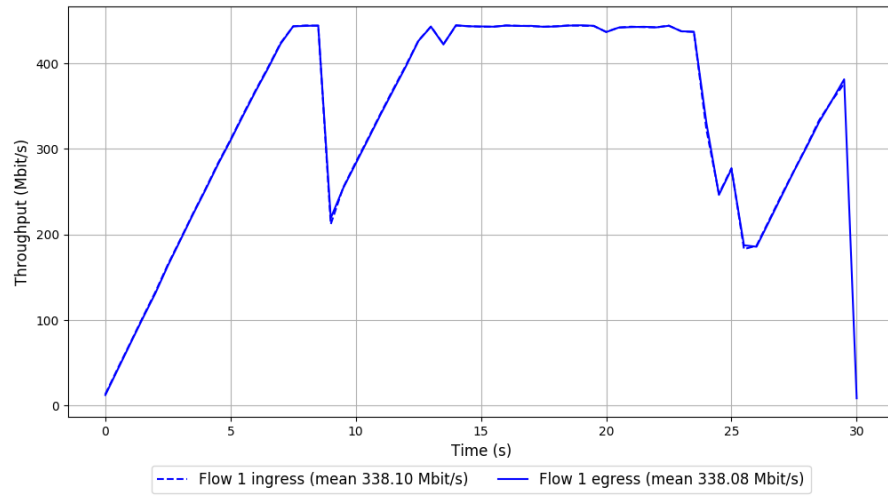
Run 9: Report of TCP Cubic — Data Link

```
Run 10: Statistics of TCP Cubic

Start at: 2017-12-11 16:50:42
End at: 2017-12-11 16:51:12
Local clock offset: -3.441 ms
Remote clock offset: -0.388 ms


# Below is generated by plot.py at 2017-12-11 18:40:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 369.96 Mbit/s
95th percentile per-packet one-way delay: 17.846 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 369.96 Mbit/s
95th percentile per-packet one-way delay: 17.846 ms
Loss rate: 0.04%
```
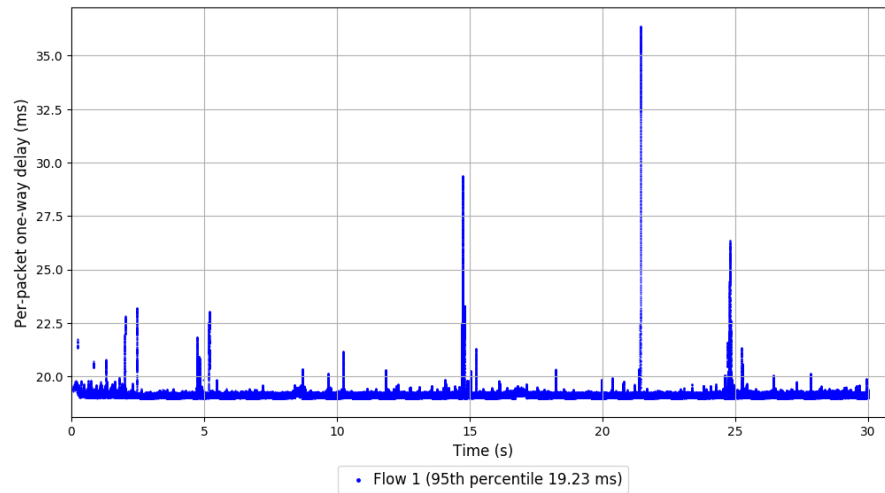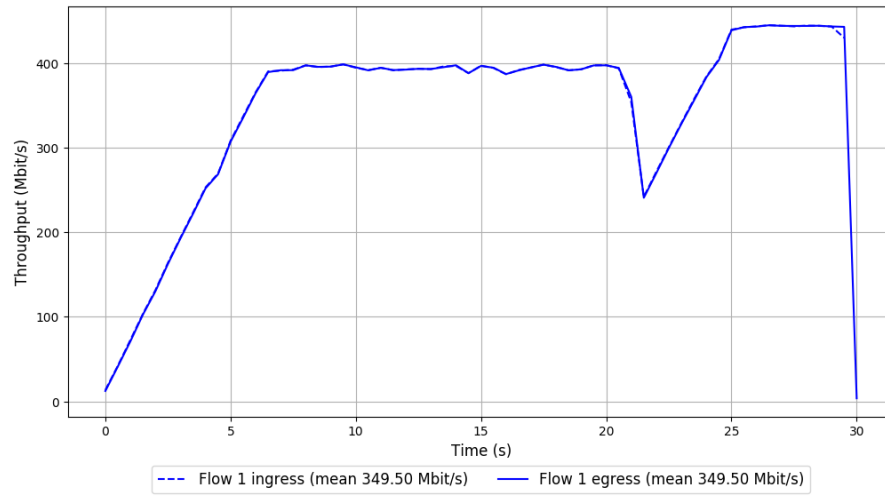
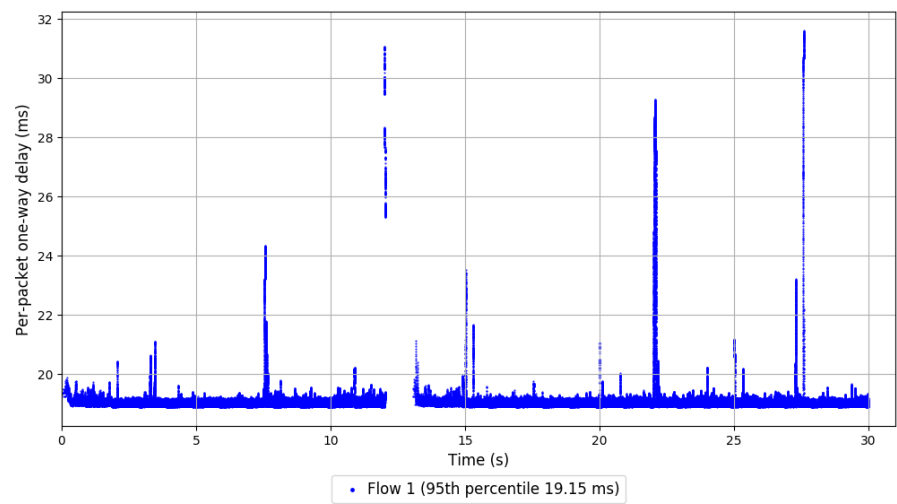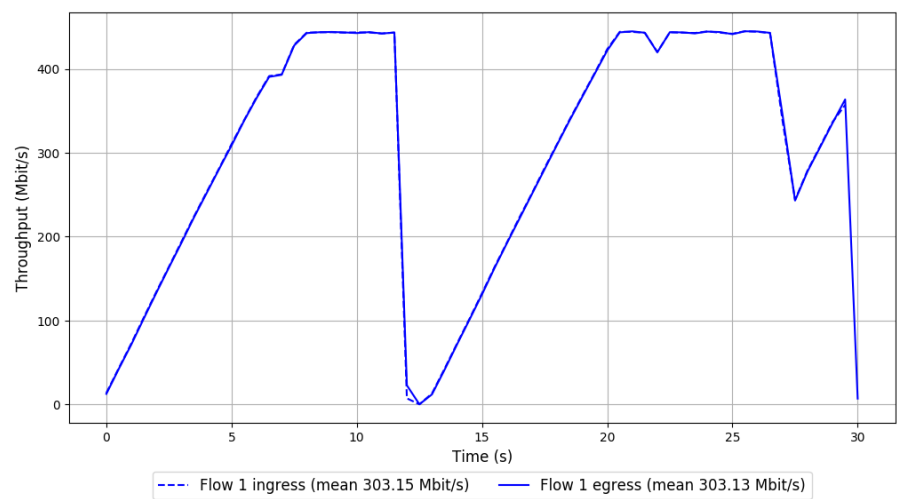Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2017-12-11 14:08:34
End at: 2017-12-11 14:09:04
Local clock offset: -7.286 ms
Remote clock offset: -0.587 ms


# Below is generated by plot.py at 2017-12-11 18:41:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 338.08 Mbit/s
95th percentile per-packet one-way delay: 19.161 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 338.08 Mbit/s
95th percentile per-packet one-way delay: 19.161 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 338.10 Mbit/s) — Flow 1 egress (mean 338.08 Mbit/s)

Flow 1 (95th percentile 19.16 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2017-12-11 14:26:51
End at: 2017-12-11 14:27:21
Local clock offset: -7.087 ms
Remote clock offset: -0.809 ms


# Below is generated by plot.py at 2017-12-11 18:43:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 349.50 Mbit/s
95th percentile per-packet one-way delay: 19.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 349.50 Mbit/s
95th percentile per-packet one-way delay: 19.227 ms
Loss rate: 0.00%
```
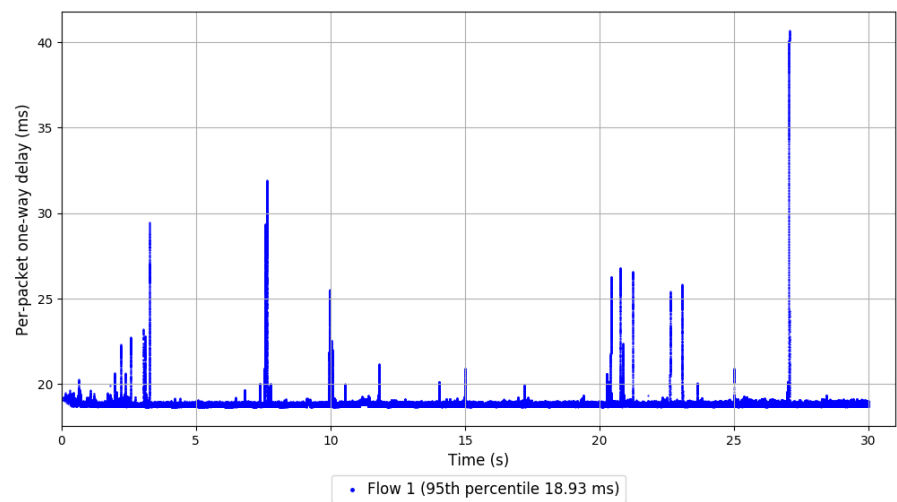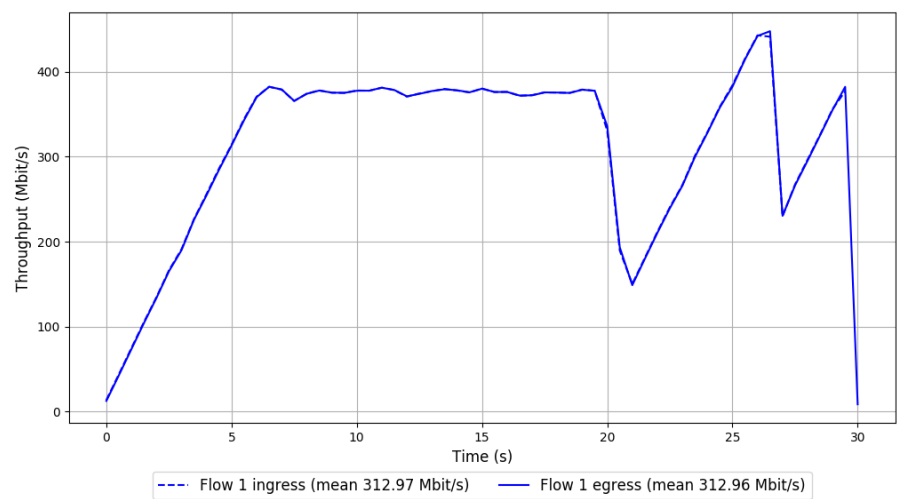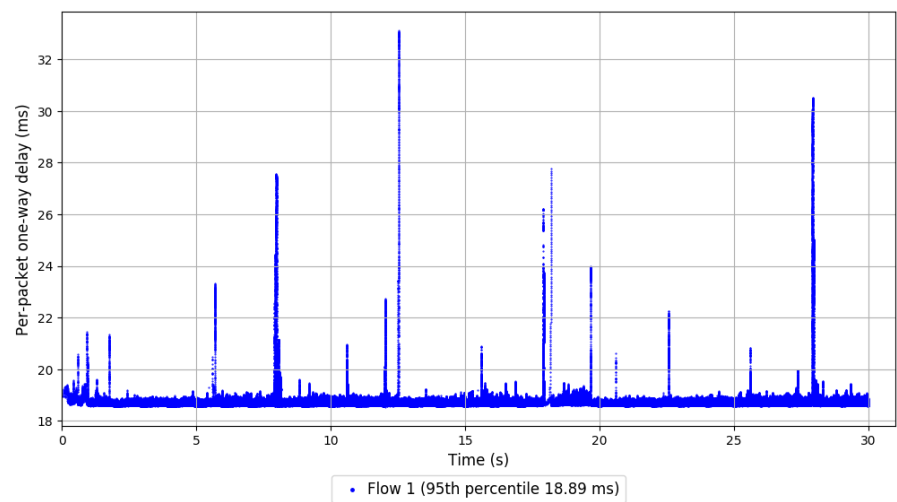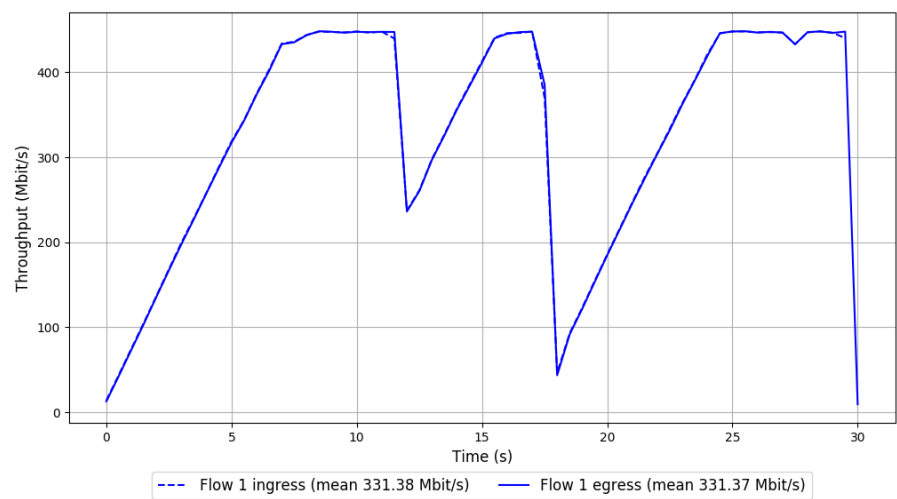
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2017-12-11 14:45:24
End at: 2017-12-11 14:45:54
Local clock offset: -7.018 ms
Remote clock offset: -0.852 ms


# Below is generated by plot.py at 2017-12-11 18:43:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.13 Mbit/s
95th percentile per-packet one-way delay: 19.154 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 303.13 Mbit/s
95th percentile per-packet one-way delay: 19.154 ms
Loss rate: 0.01%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 303.15 Mbit/s) --- Flow 1 egress (mean 303.13 Mbit/s)
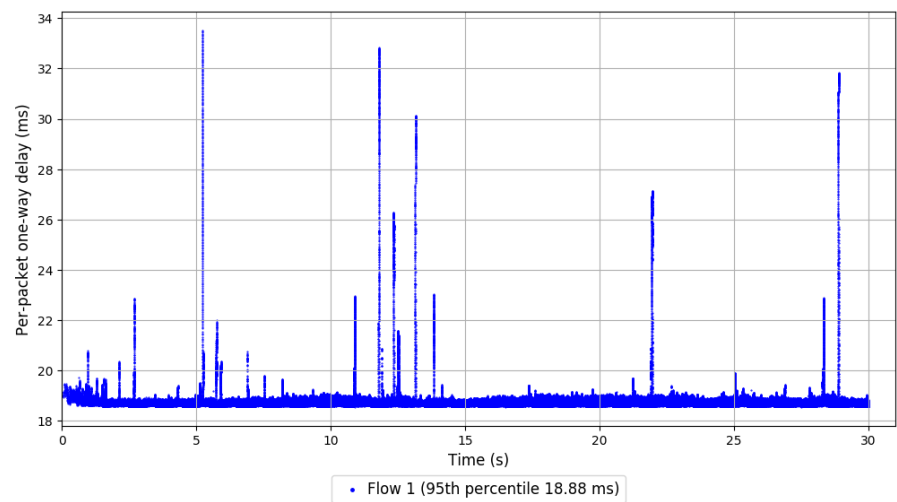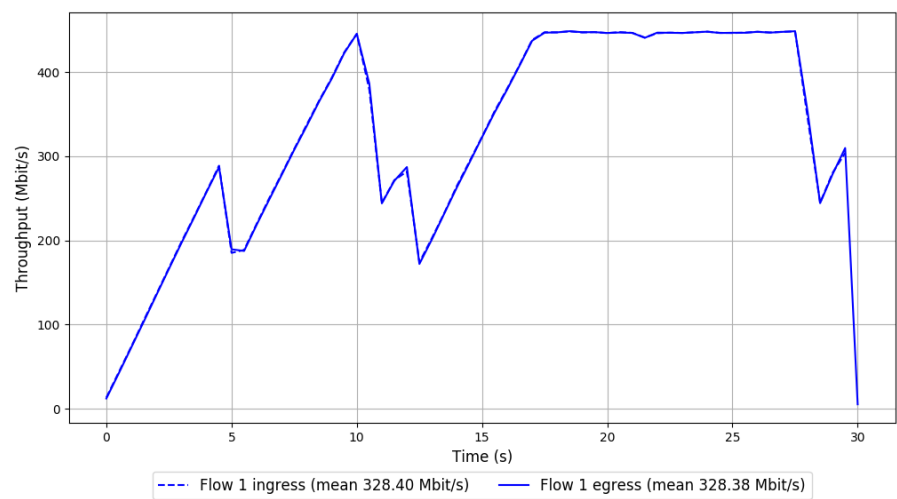

Flow 1 (95th percentile 19.15 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2017-12-11 15:04:18
End at: 2017-12-11 15:04:48
Local clock offset: -6.91 ms
Remote clock offset: -0.806 ms


# Below is generated by plot.py at 2017-12-11 18:43:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 312.96 Mbit/s
95th percentile per-packet one-way delay: 18.931 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 312.96 Mbit/s
95th percentile per-packet one-way delay: 18.931 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 312.97 Mbit/s)   Flow 1 egress (mean 312.96 Mbit/s)

Flow 1 (95th percentile 18.93 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2017-12-11 15:22:46
End at: 2017-12-11 15:23:16
Local clock offset: -6.714 ms
Remote clock offset: -1.131 ms


# Below is generated by plot.py at 2017-12-11 18:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 331.37 Mbit/s
95th percentile per-packet one-way delay: 18.886 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 331.37 Mbit/s
95th percentile per-packet one-way delay: 18.886 ms
Loss rate: 0.01%
```
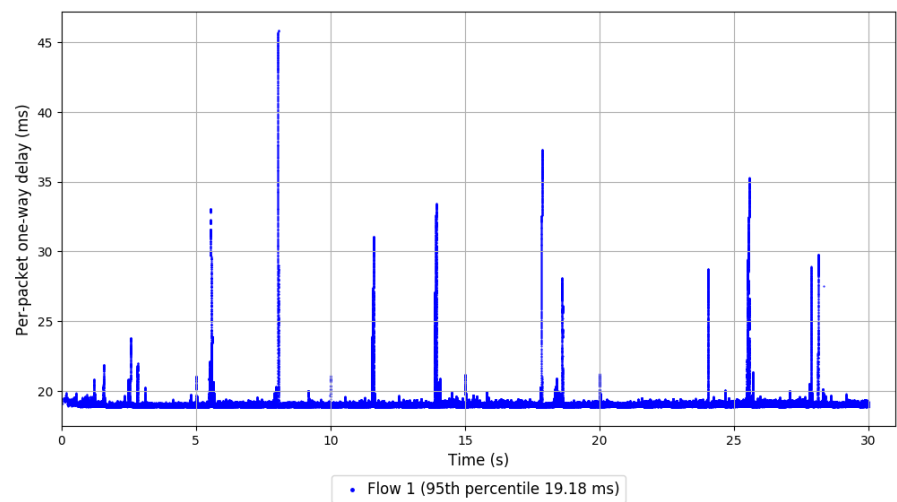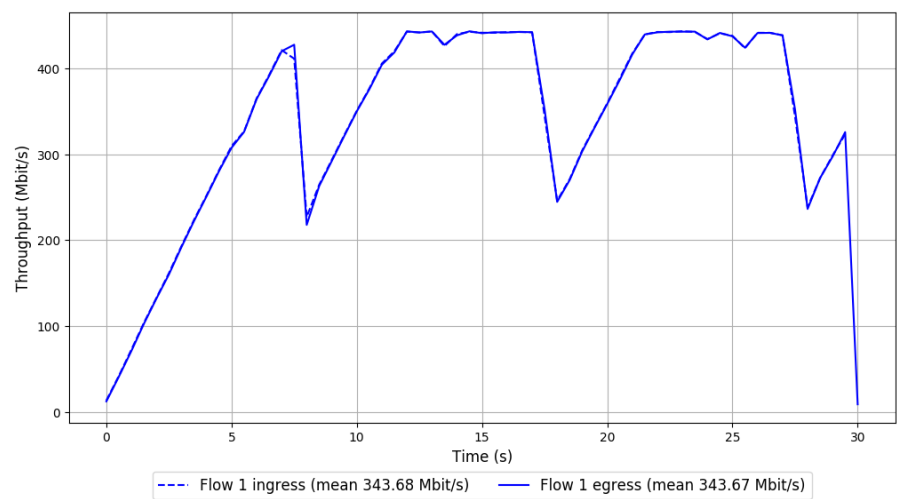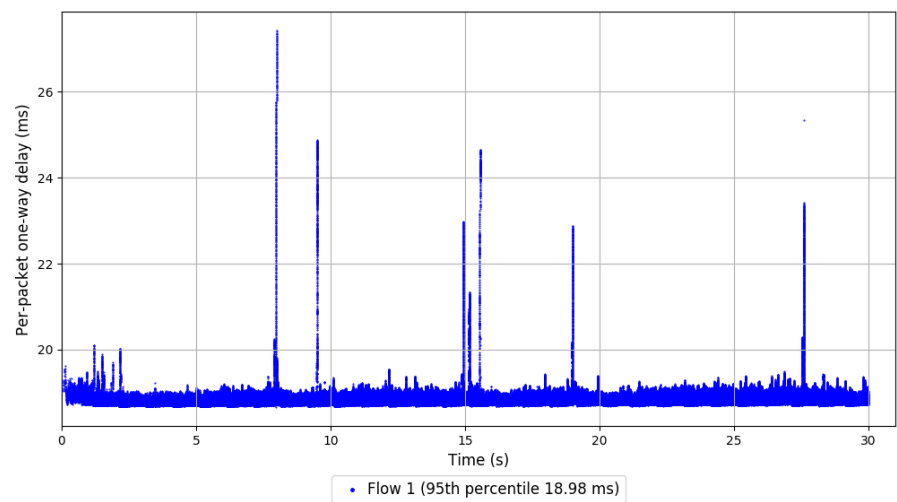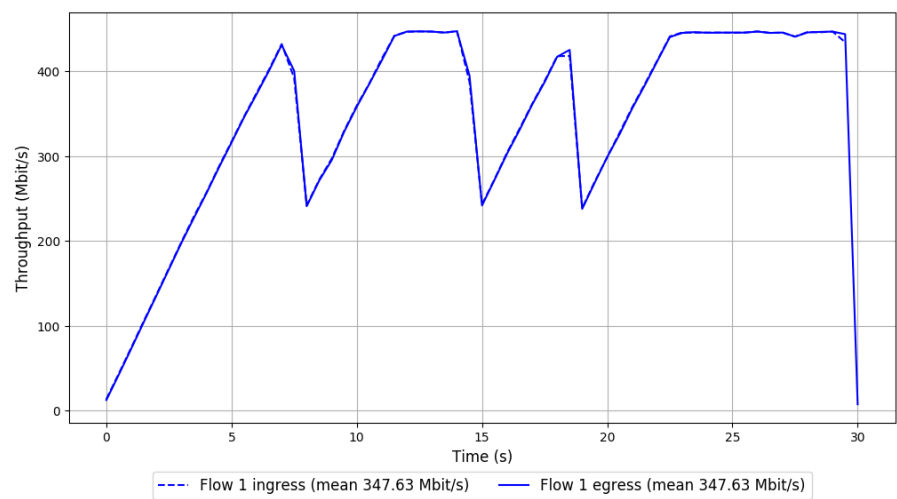
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2017-12-11 15:41:24
End at: 2017-12-11 15:41:55
Local clock offset: -6.671 ms
Remote clock offset: -0.962 ms


# Below is generated by plot.py at 2017-12-11 18:44:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 328.38 Mbit/s
95th percentile per-packet one-way delay: 18.878 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 328.38 Mbit/s
95th percentile per-packet one-way delay: 18.878 ms
Loss rate: 0.01%
```

Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 328.40 Mbit/s)   Flow 1 egress (mean 328.38 Mbit/s)

Flow 1 (95th percentile 18.88 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2017-12-11 15:59:53
End at: 2017-12-11 16:00:23
Local clock offset: -6.422 ms
Remote clock offset: -0.845 ms


# Below is generated by plot.py at 2017-12-11 18:45:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 343.67 Mbit/s
95th percentile per-packet one-way delay: 19.185 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 343.67 Mbit/s
95th percentile per-packet one-way delay: 19.185 ms
Loss rate: 0.00%
```
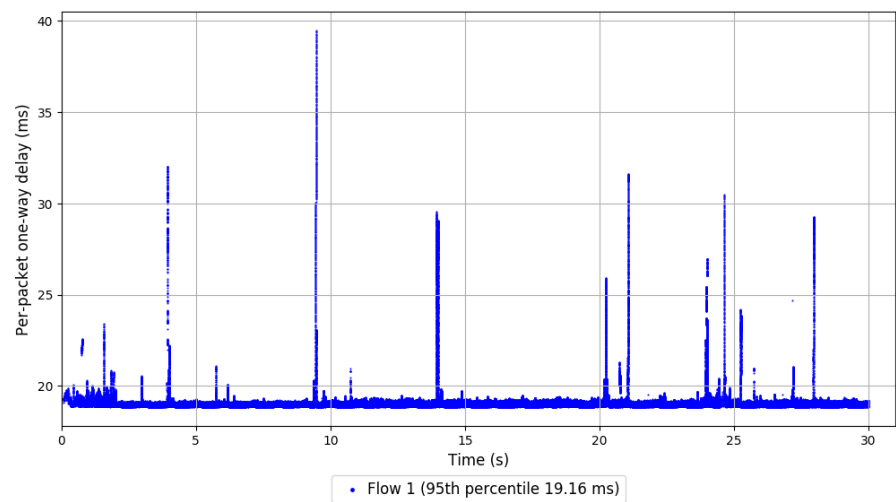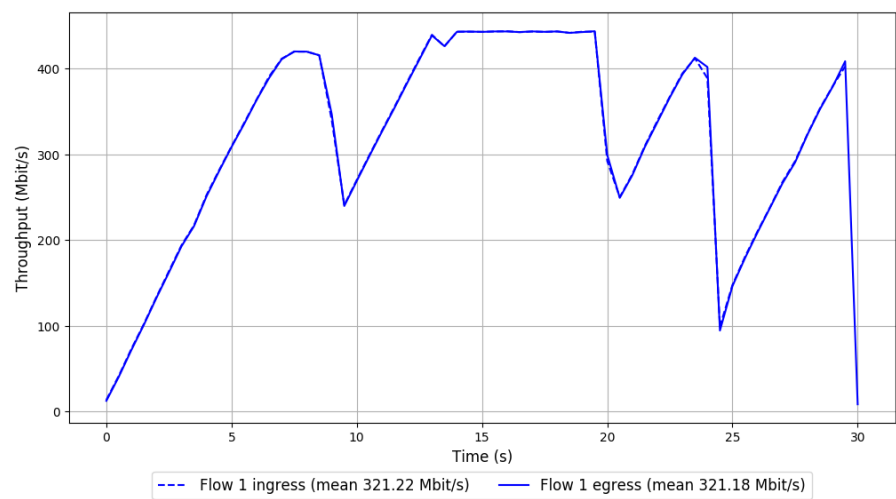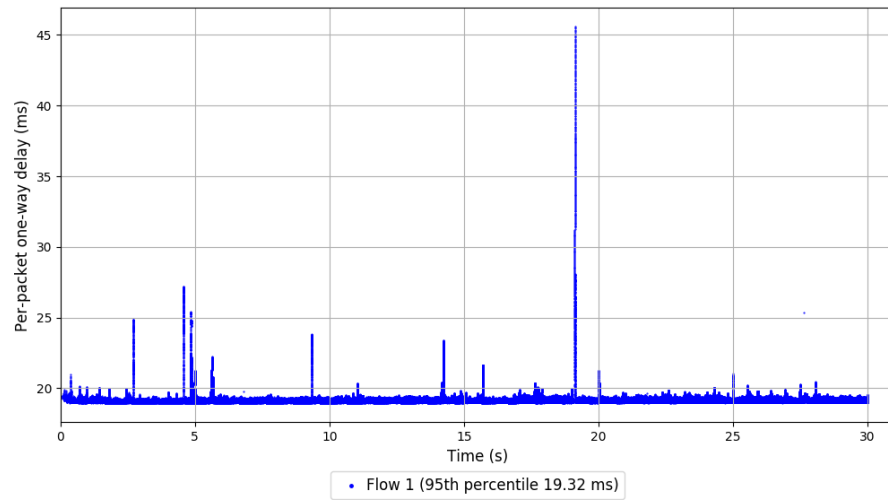
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 343.68 Mbit/s) --- Flow 1 egress (mean 343.67 Mbit/s)
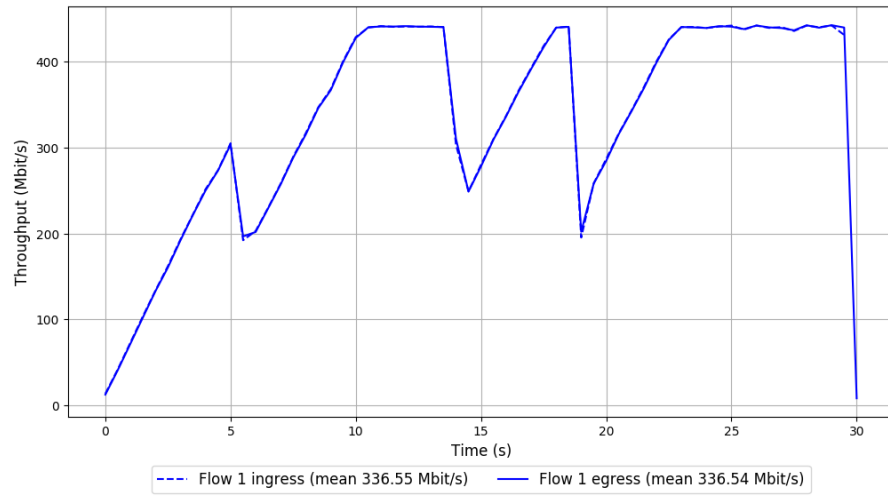

Flow 1 (95th percentile 19.18 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2017-12-11 16:18:27
End at: 2017-12-11 16:18:57
Local clock offset: -5.022 ms
Remote clock offset: -0.731 ms


# Below is generated by plot.py at 2017-12-11 18:45:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.63 Mbit/s
95th percentile per-packet one-way delay: 18.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 347.63 Mbit/s
95th percentile per-packet one-way delay: 18.985 ms
Loss rate: 0.00%
```

Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 347.63 Mbit/s)   Flow 1 egress (mean 347.63 Mbit/s)

Flow 1 (95th percentile 18.98 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2017-12-11 16:37:00
End at: 2017-12-11 16:37:30
Local clock offset: -4.358 ms
Remote clock offset: -0.39 ms

# Below is generated by plot.py at 2017-12-11 18:45:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.18 Mbit/s
95th percentile per-packet one-way delay: 19.155 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 321.18 Mbit/s
95th percentile per-packet one-way delay: 19.155 ms
Loss rate: 0.01%
```

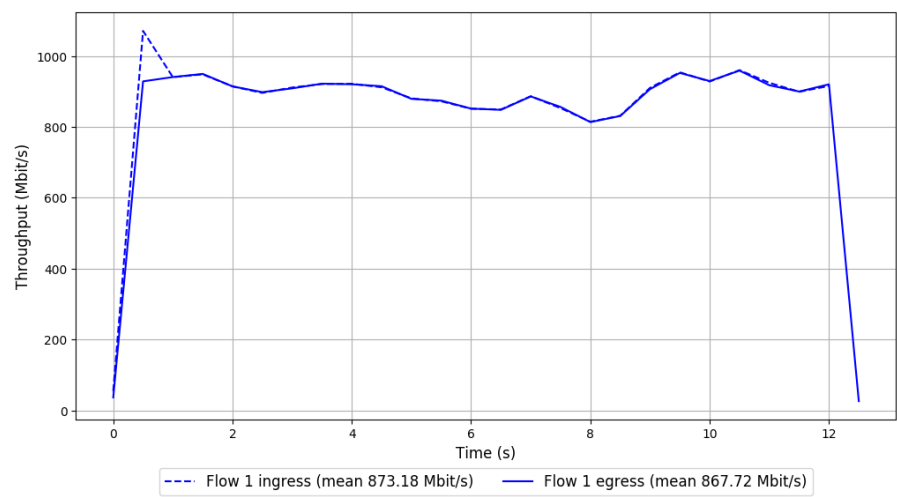# Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2017-12-11 16:55:45
End at: 2017-12-11 16:56:15
Local clock offset: -3.065 ms
Remote clock offset: -0.516 ms


# Below is generated by plot.py at 2017-12-11 18:47:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 336.54 Mbit/s
95th percentile per-packet one-way delay: 19.324 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 336.54 Mbit/s
95th percentile per-packet one-way delay: 19.324 ms
Loss rate: 0.01%
```
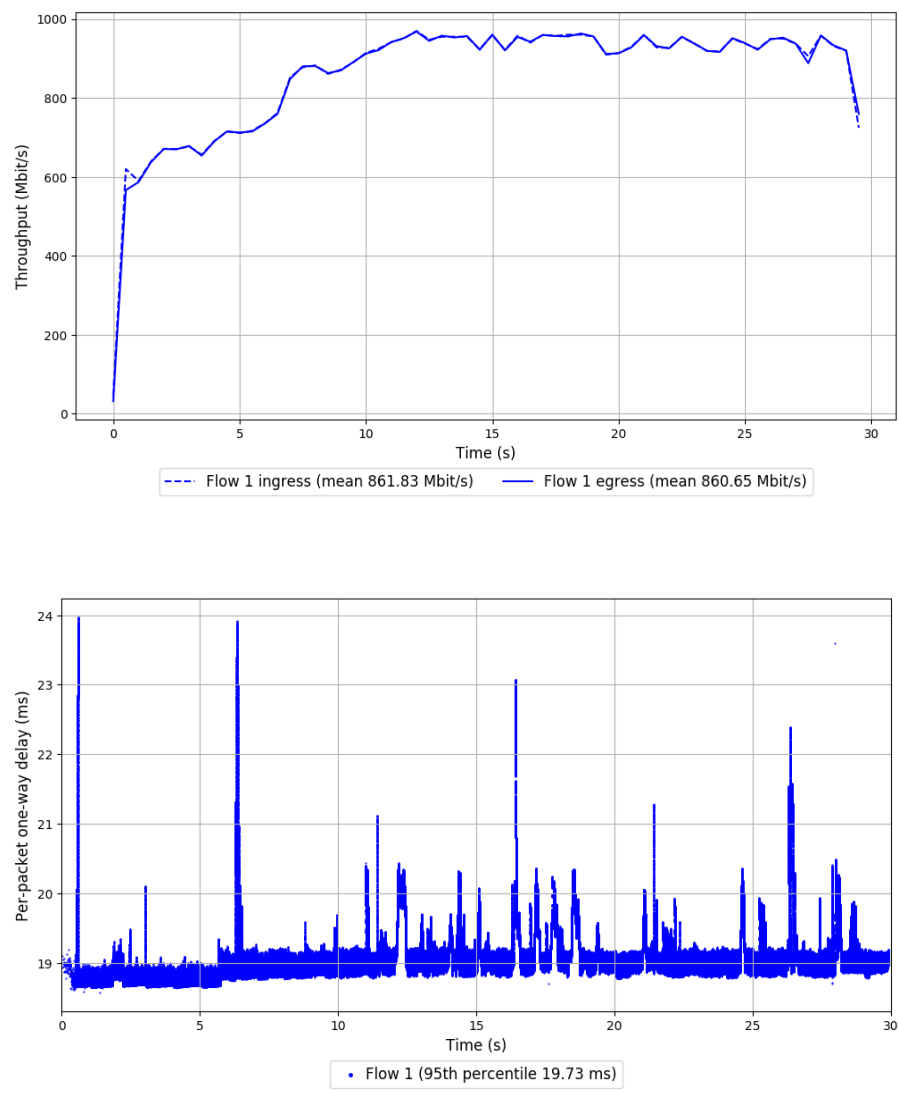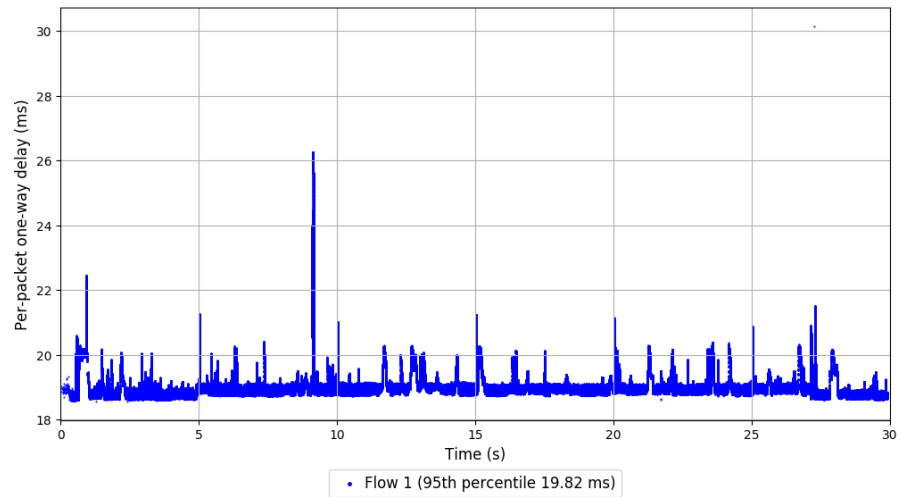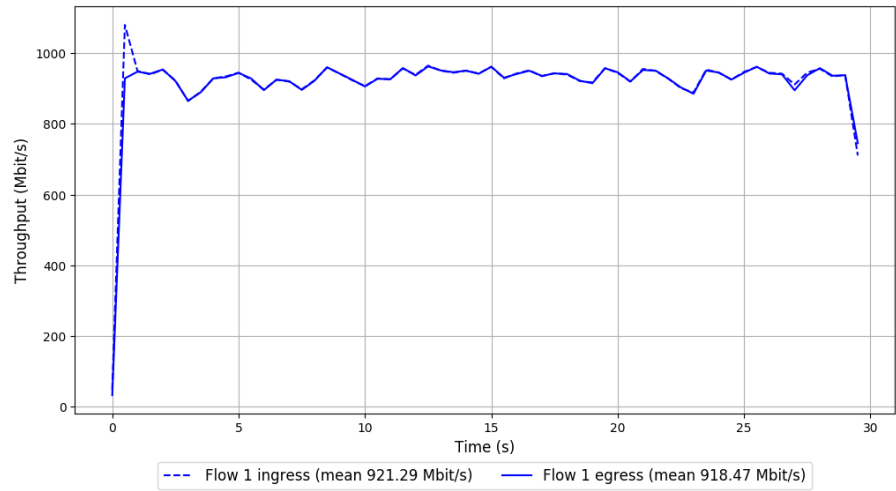
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 336.55 Mbit/s) --- Flow 1 egress (mean 336.54 Mbit/s)

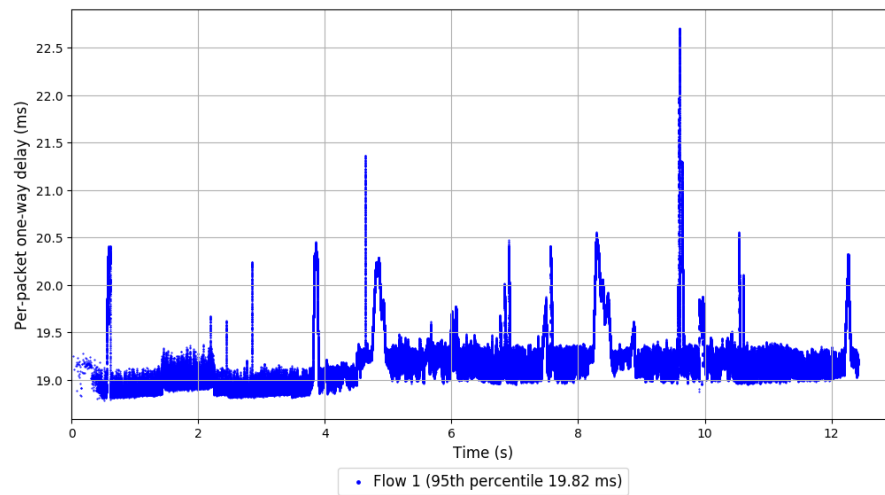Flow 1 (95th percentile 19.32 ms)

```
Run 1: Statistics of PCC

Start at: 2017-12-11 14:12:47
End at: 2017-12-11 14:13:17
Local clock offset: -7.242 ms
Remote clock offset: -0.652 ms
```
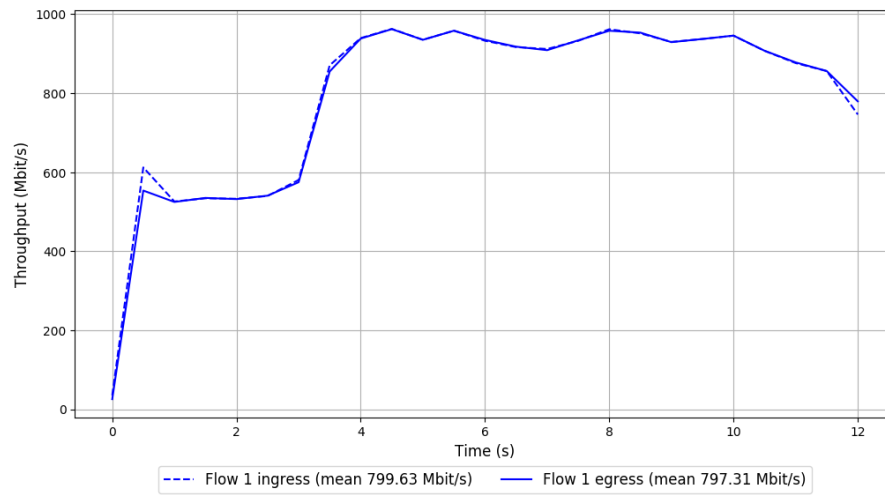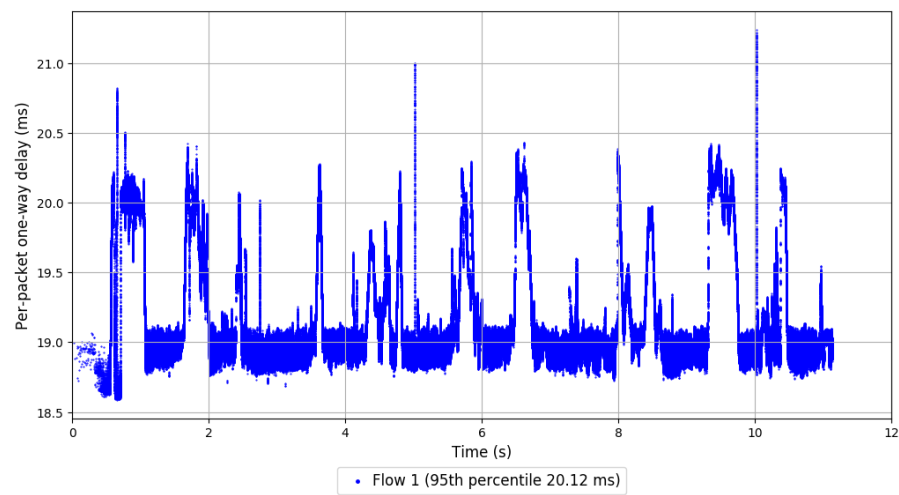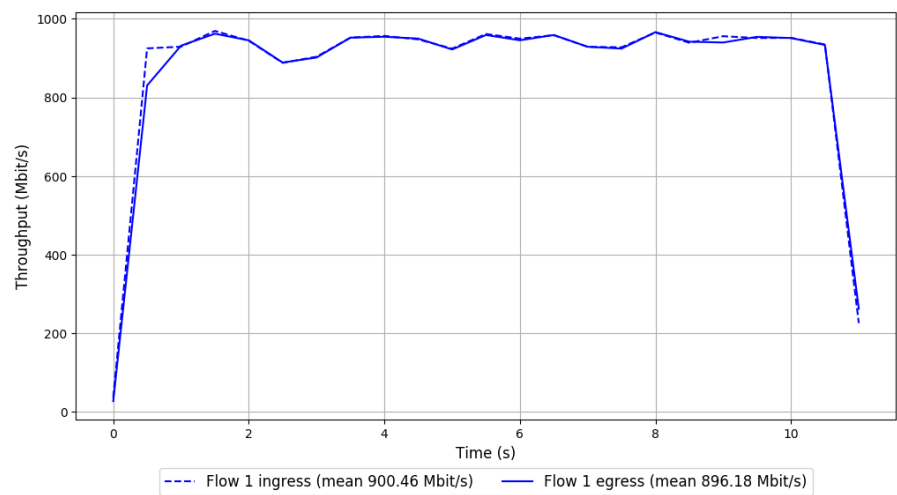
Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: 2017-12-11 14:31:05
End at: 2017-12-11 14:31:35
Local clock offset: -6.995 ms
Remote clock offset: -0.87 ms


# Below is generated by plot.py at 2017-12-11 18:56:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 860.65 Mbit/s
95th percentile per-packet one-way delay: 19.727 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 860.65 Mbit/s
95th percentile per-packet one-way delay: 19.727 ms
Loss rate: 0.14%
```

Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 861.83 Mbit/s)   Flow 1 egress (mean 860.65 Mbit/s)

Flow 1 (95th percentile 19.73 ms)

```
Run 3: Statistics of PCC

Start at: 2017-12-11 14:49:34
End at: 2017-12-11 14:50:04
Local clock offset: -6.906 ms
Remote clock offset: -0.852 ms


# Below is generated by plot.py at 2017-12-11 18:56:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 918.47 Mbit/s
95th percentile per-packet one-way delay: 19.815 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 918.47 Mbit/s
95th percentile per-packet one-way delay: 19.815 ms
Loss rate: 0.31%
```

Run 3: Report of PCC — Data Link
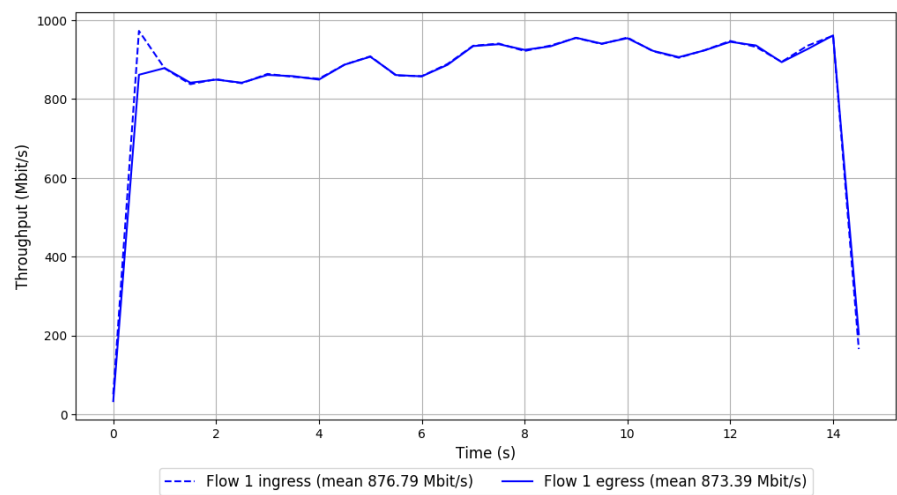
```
Run 4: Statistics of PCC

Start at: 2017-12-11 15:08:29
End at: 2017-12-11 15:08:59
Local clock offset: -6.759 ms
Remote clock offset: -0.886 ms
```

Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 799.63 Mbit/s) — — —   Flow 1 egress (mean 797.31 Mbit/s) ——

Flow 1 (95th percentile 19.82 ms)
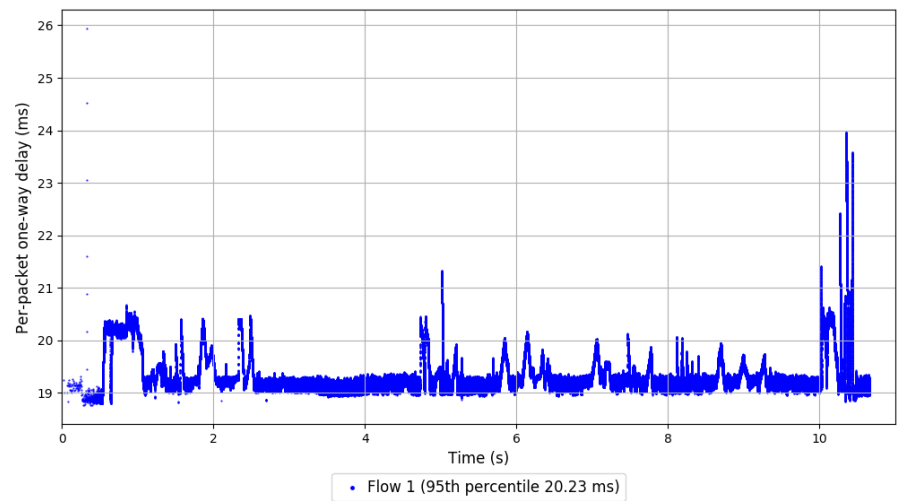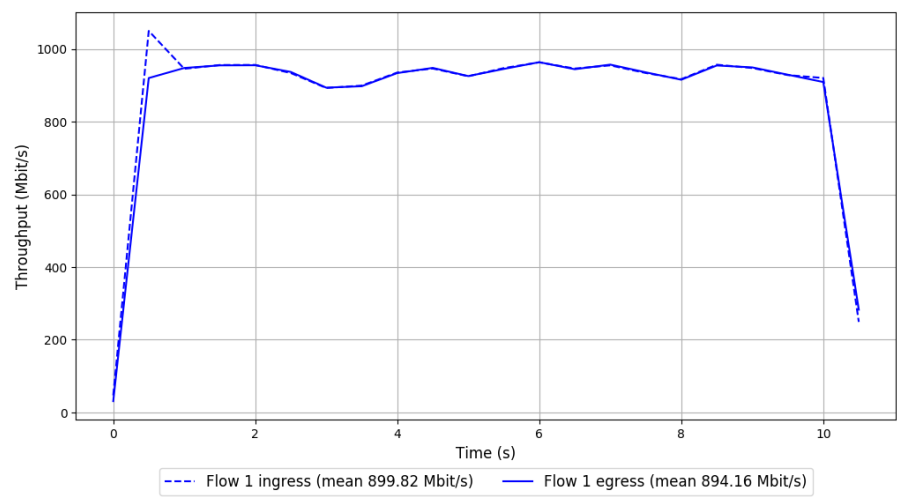
```
Run 5: Statistics of PCC

Start at: 2017-12-11 15:26:57
End at: 2017-12-11 15:27:27
Local clock offset: -6.688 ms
Remote clock offset: -1.185 ms
```

Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 900.46 Mbit/s)   Flow 1 egress (mean 896.18 Mbit/s)

Flow 1 (95th percentile 20.12 ms)

Run 6: Statistics of PCC

Start at: 2017-12-11 15:45:37
End at: 2017-12-11 15:46:07
Local clock offset: -6.675 ms
Remote clock offset: -0.857 ms
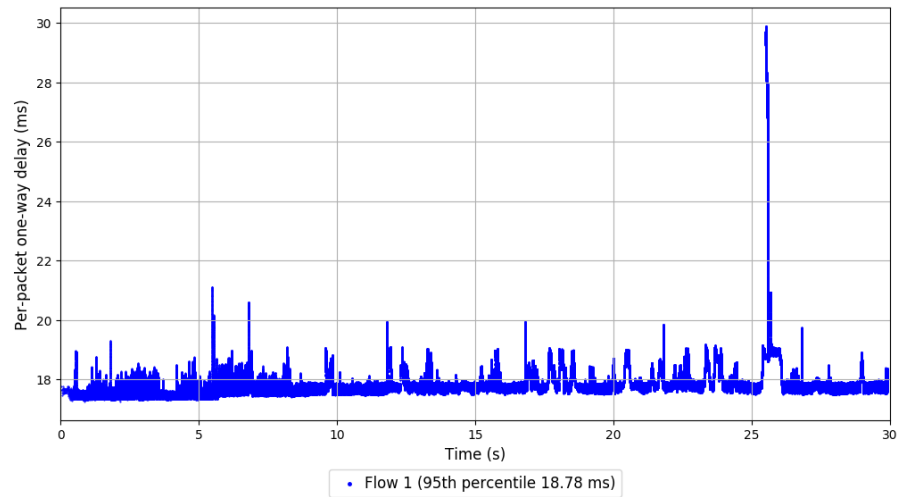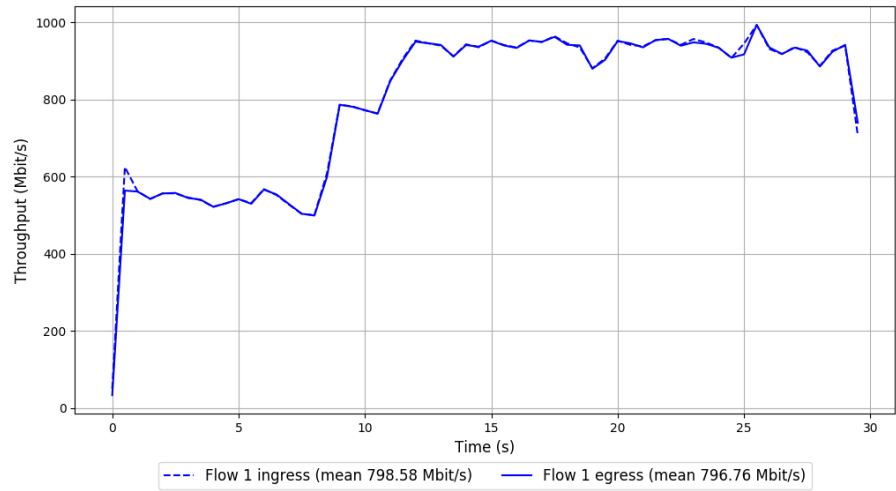
Run 6: Report of PCC — Data Link

```
Run 7: Statistics of PCC

Start at: 2017-12-11 16:04:05
End at: 2017-12-11 16:04:35
Local clock offset: -6.414 ms
Remote clock offset: -0.905 ms
```

Run 7: Report of PCC — Data Link
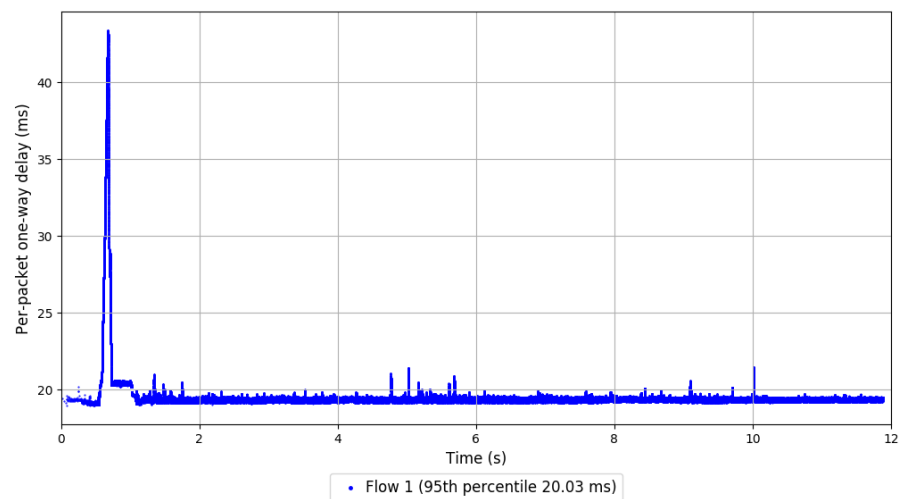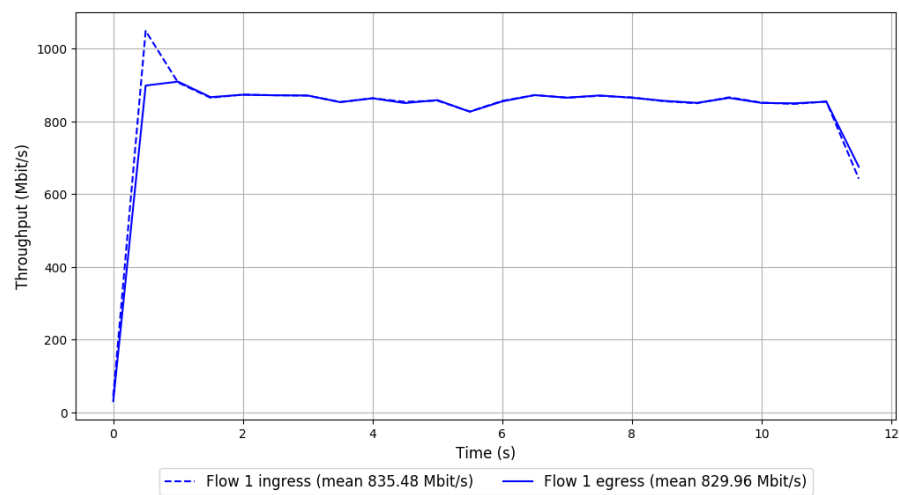
```
Run 8: Statistics of PCC

Start at: 2017-12-11 16:22:39
End at: 2017-12-11 16:23:09
Local clock offset: -4.832 ms
Remote clock offset: -0.628 ms
```

Run 8: Report of PCC — Data Link

```
Run 9: Statistics of PCC

Start at: 2017-12-11 16:41:13
End at: 2017-12-11 16:41:43
Local clock offset: -4.259 ms
Remote clock offset: -0.296 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 796.76 Mbit/s
95th percentile per-packet one-way delay: 18.778 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 796.76 Mbit/s
95th percentile per-packet one-way delay: 18.778 ms
Loss rate: 0.23%
```
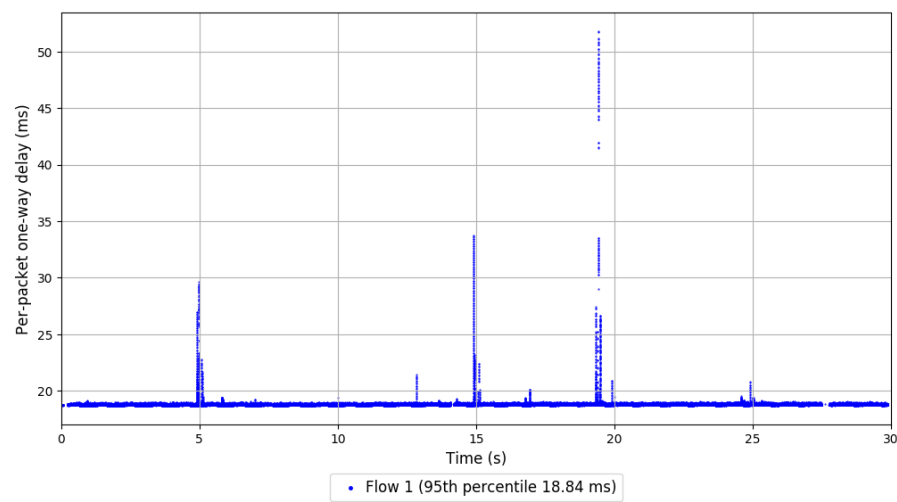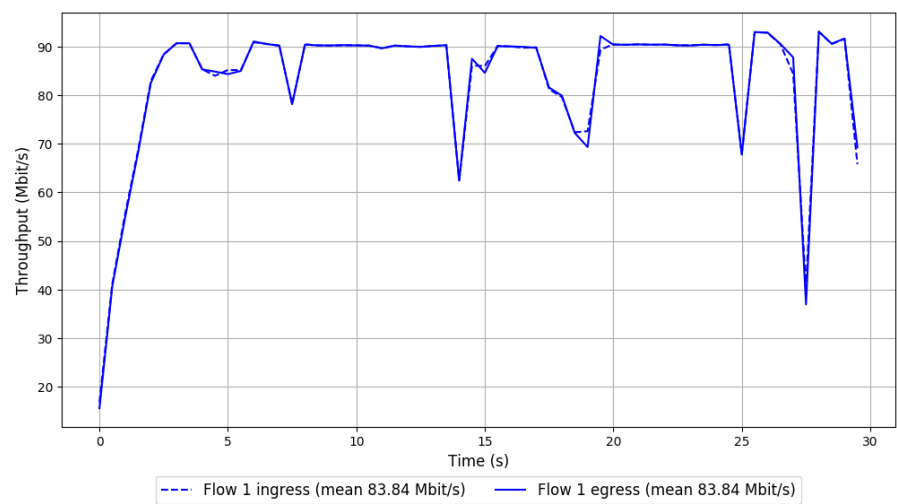
Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 798.58 Mbit/s)   Flow 1 egress (mean 796.76 Mbit/s)

Flow 1 (95th percentile 18.78 ms)

```
Run 10: Statistics of PCC

Start at: 2017-12-11 16:59:57
End at: 2017-12-11 17:00:27
Local clock offset: -2.826 ms
Remote clock offset: -0.581 ms
```
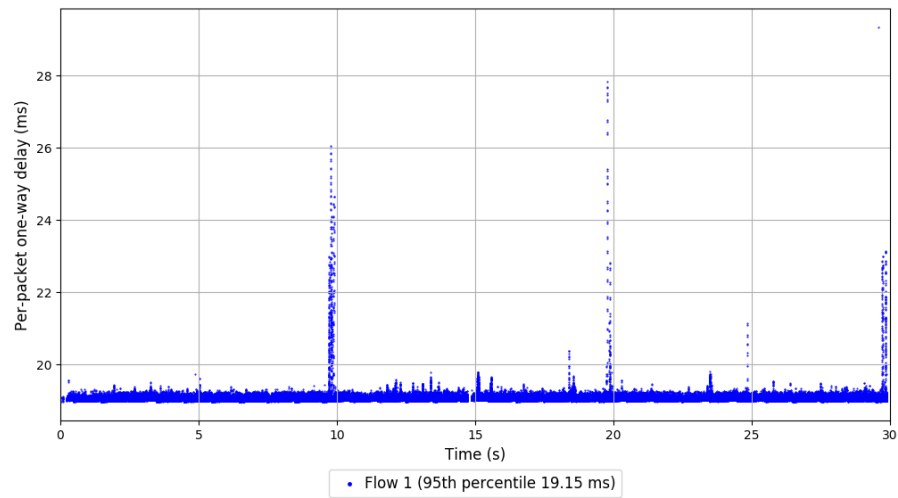
Run 10: Report of PCC — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-11 14:11:33
End at: 2017-12-11 14:12:03
Local clock offset: -7.241 ms
Remote clock offset: -0.625 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 18.843 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 18.843 ms
Loss rate: 0.00%
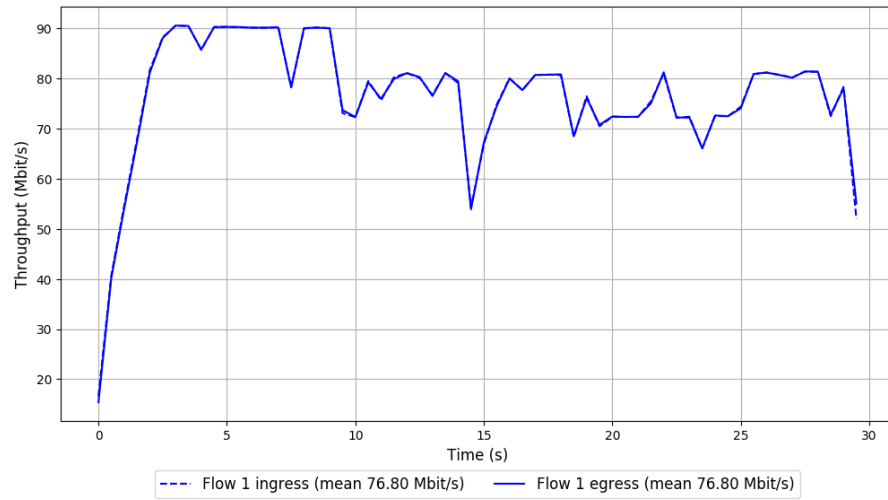```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-12-11 14:29:51
End at: 2017-12-11 14:30:21
Local clock offset: -7.068 ms
Remote clock offset: -0.824 ms

Below is generated by plot.py at 2017-12-11 18:59:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 76.80 Mbit/s
95th percentile per-packet one-way delay: 19.146 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 76.80 Mbit/s
95th percentile per-packet one-way delay: 19.146 ms
Loss rate: 0.01%
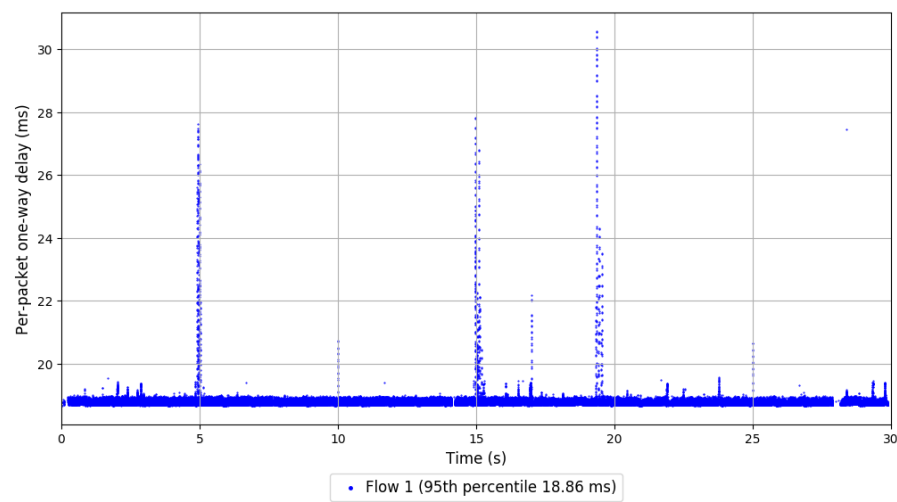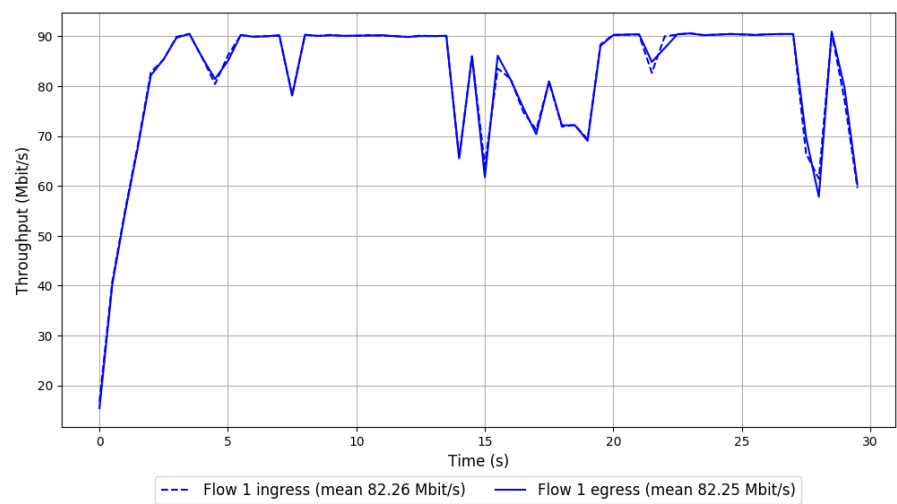```

Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-12-11 14:48:21
End at: 2017-12-11 14:48:51
Local clock offset: -7.027 ms
Remote clock offset: -0.869 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.25 Mbit/s
95th percentile per-packet one-way delay: 18.860 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.25 Mbit/s
95th percentile per-packet one-way delay: 18.860 ms
Loss rate: 0.01%
```

Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-12-11 15:07:15
End at: 2017-12-11 15:07:46
Local clock offset: -6.772 ms
Remote clock offset: -0.774 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.21 Mbit/s
95th percentile per-packet one-way delay: 19.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.21 Mbit/s
95th percentile per-packet one-way delay: 19.016 ms
Loss rate: 0.00%
```
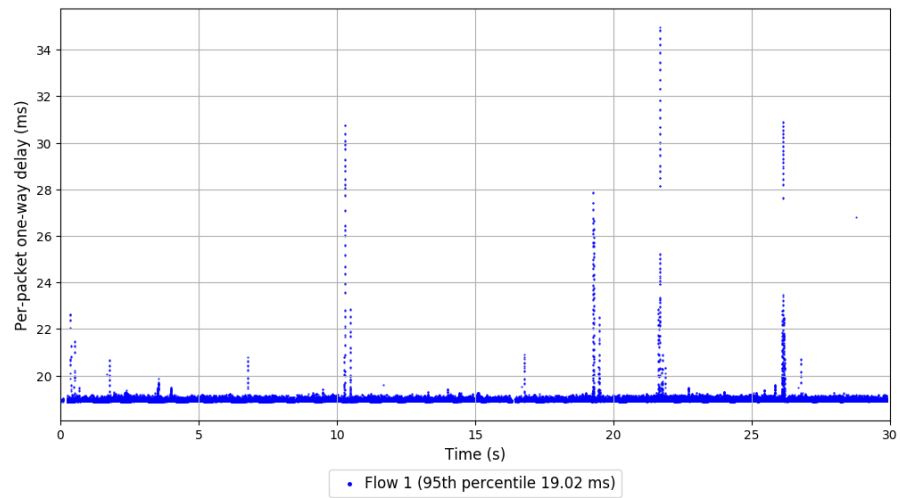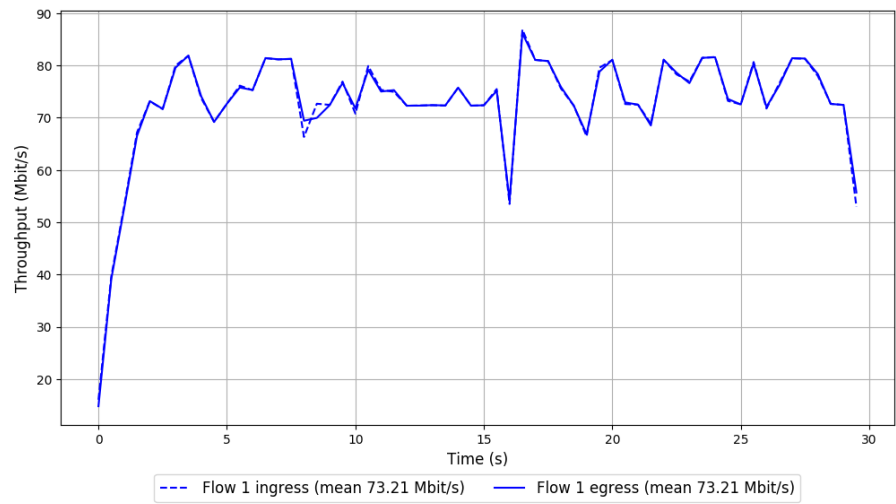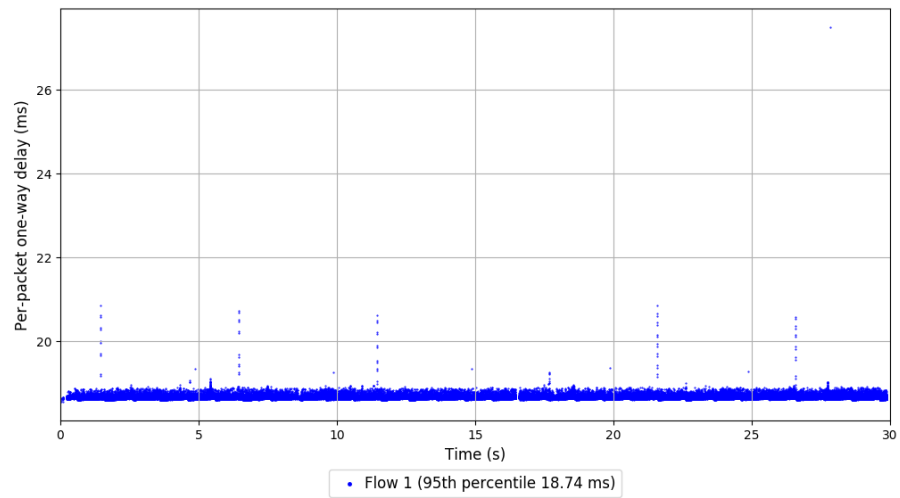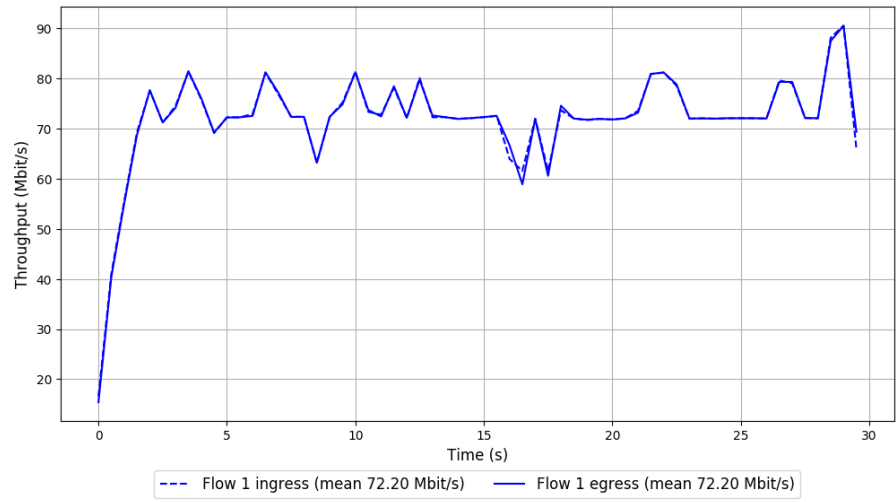
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 73.21 Mbit/s) --- Flow 1 egress (mean 73.21 Mbit/s)

Flow 1 (95th percentile 19.02 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-12-11 15:25:44
End at: 2017-12-11 15:26:14
Local clock offset: -6.7 ms
Remote clock offset: -1.174 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.20 Mbit/s
95th percentile per-packet one-way delay: 18.740 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.20 Mbit/s
95th percentile per-packet one-way delay: 18.740 ms
Loss rate: 0.00%
```
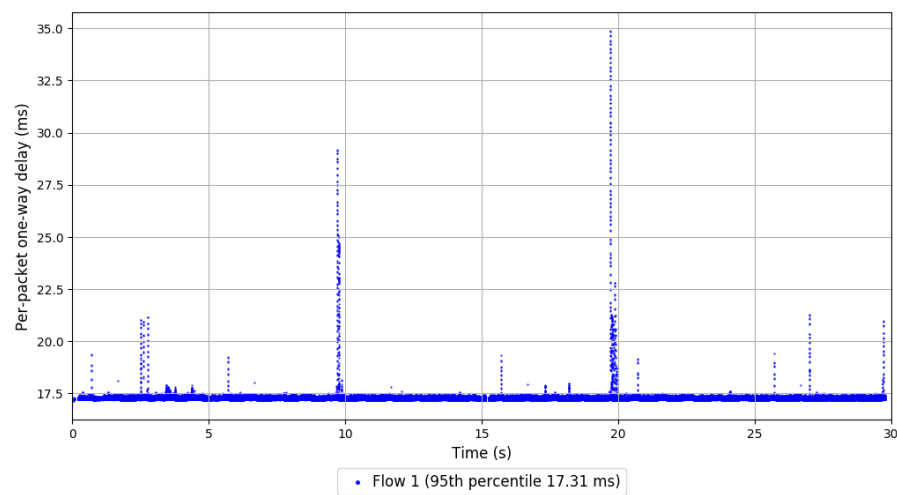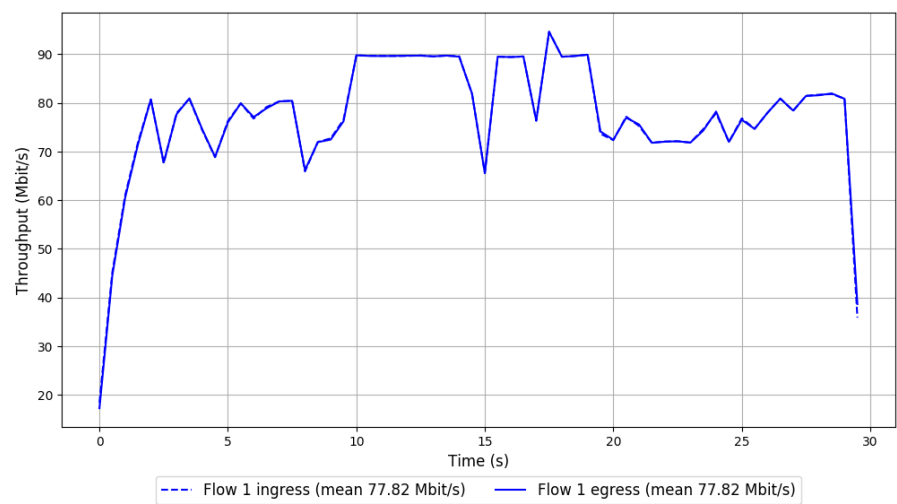
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 72.20 Mbit/s)   —— Flow 1 egress (mean 72.20 Mbit/s)

• Flow 1 (95th percentile 18.74 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-12-11 15:44:24
End at: 2017-12-11 15:44:54
Local clock offset: -6.685 ms
Remote clock offset: -0.889 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.82 Mbit/s
95th percentile per-packet one-way delay: 17.306 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.82 Mbit/s
95th percentile per-packet one-way delay: 17.306 ms
Loss rate: 0.00%
```
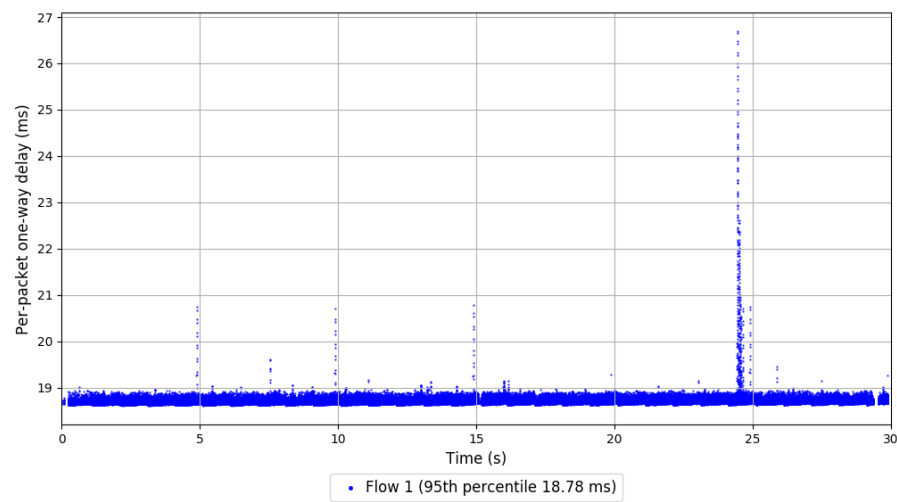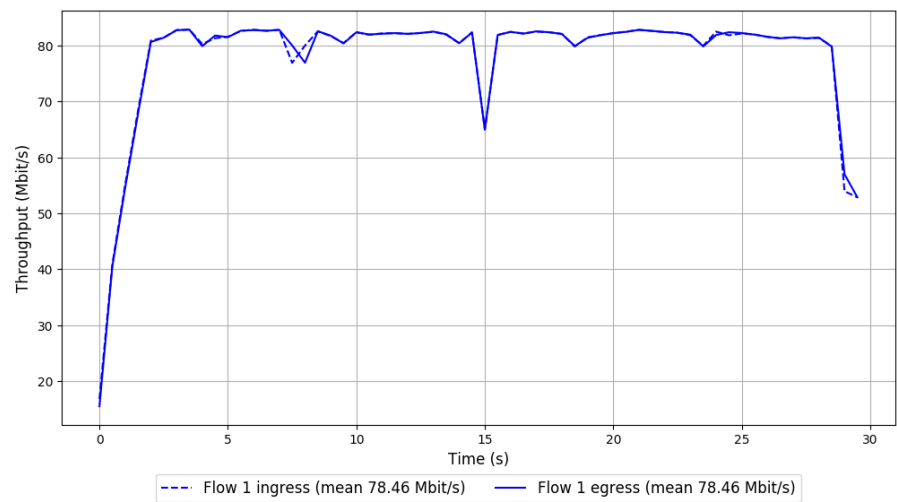
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 77.82 Mbit/s) --- Flow 1 egress (mean 77.82 Mbit/s)
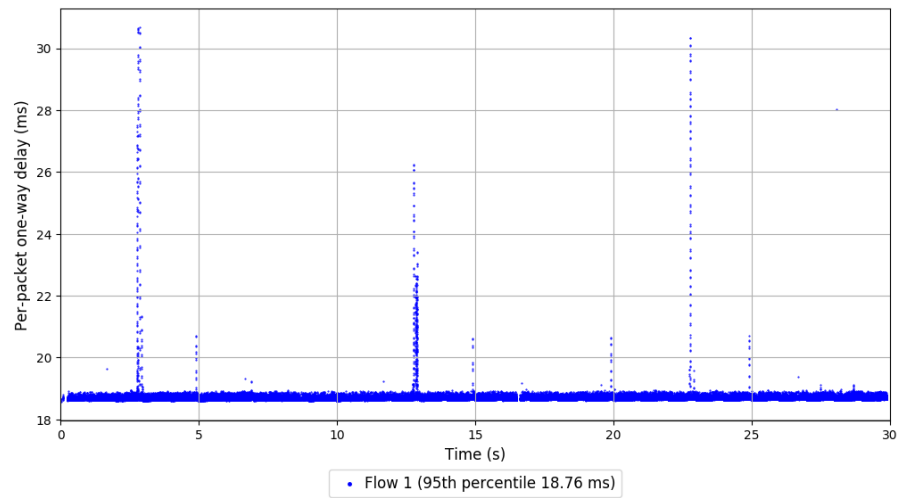

Flow 1 (95th percentile 17.31 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-12-11 16:02:52
End at: 2017-12-11 16:03:22
Local clock offset: -6.345 ms
Remote clock offset: -0.89 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.46 Mbit/s
95th percentile per-packet one-way delay: 18.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.46 Mbit/s
95th percentile per-packet one-way delay: 18.781 ms
Loss rate: 0.00%
```
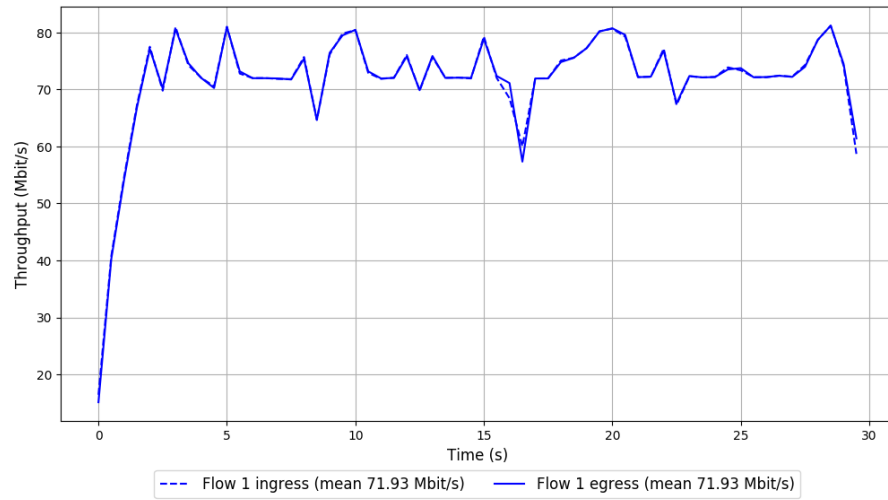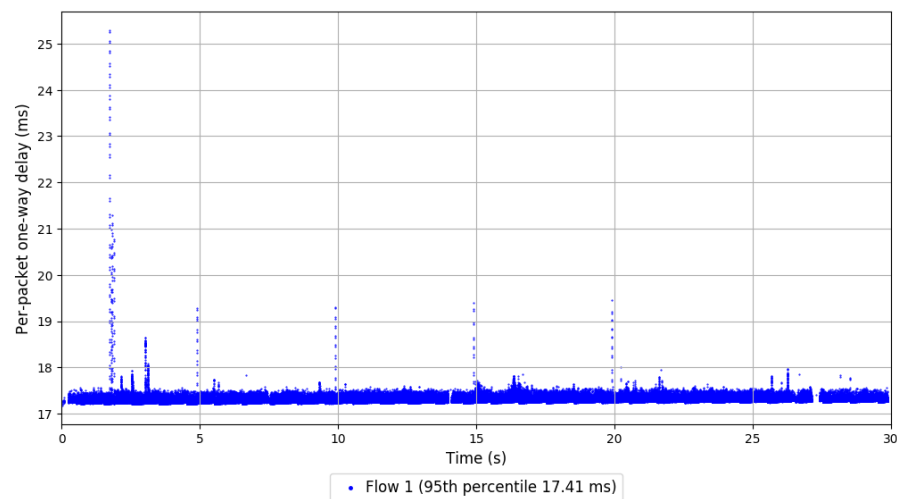
Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-12-11 16:21:26
End at: 2017-12-11 16:21:56
Local clock offset: -4.772 ms
Remote clock offset: -0.693 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.93 Mbit/s
95th percentile per-packet one-way delay: 18.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.93 Mbit/s
95th percentile per-packet one-way delay: 18.761 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 71.93 Mbit/s) --- Flow 1 egress (mean 71.93 Mbit/s)
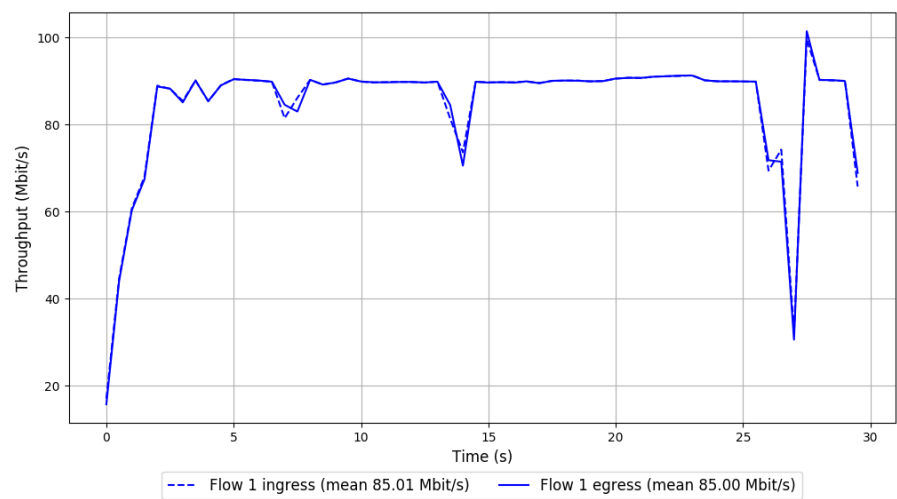

Flow 1 (95th percentile 18.76 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-12-11 16:40:00
End at: 2017-12-11 16:40:30
Local clock offset: -4.366 ms
Remote clock offset: -0.422 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 17.410 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 17.410 ms
Loss rate: 0.01%
```
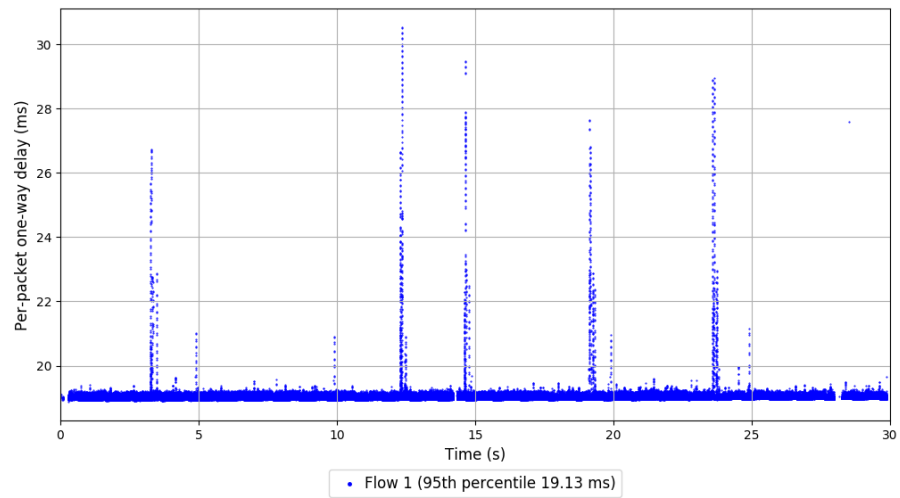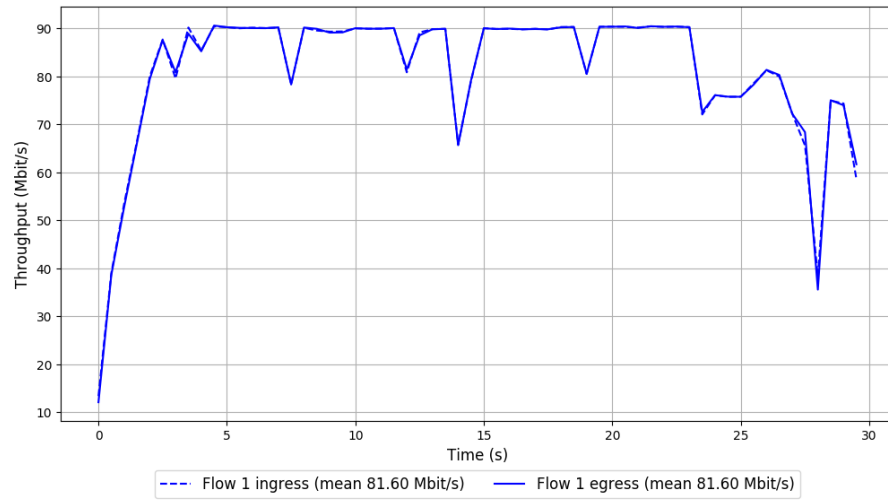
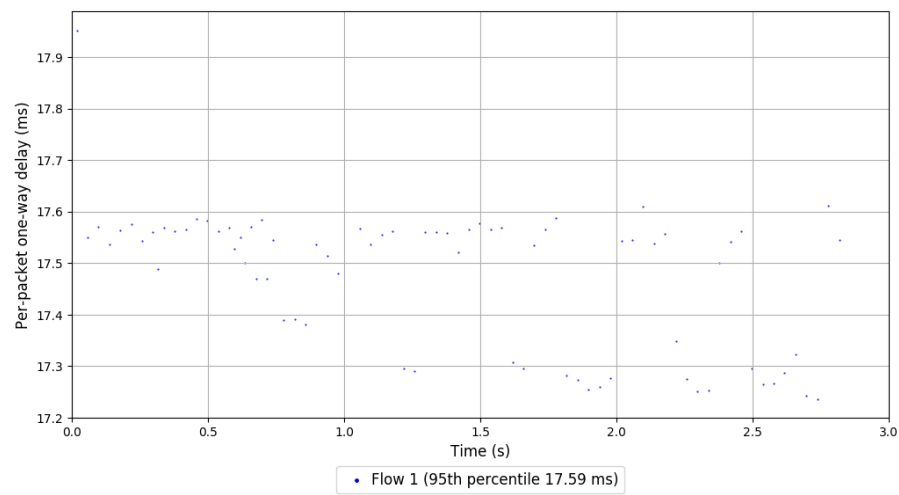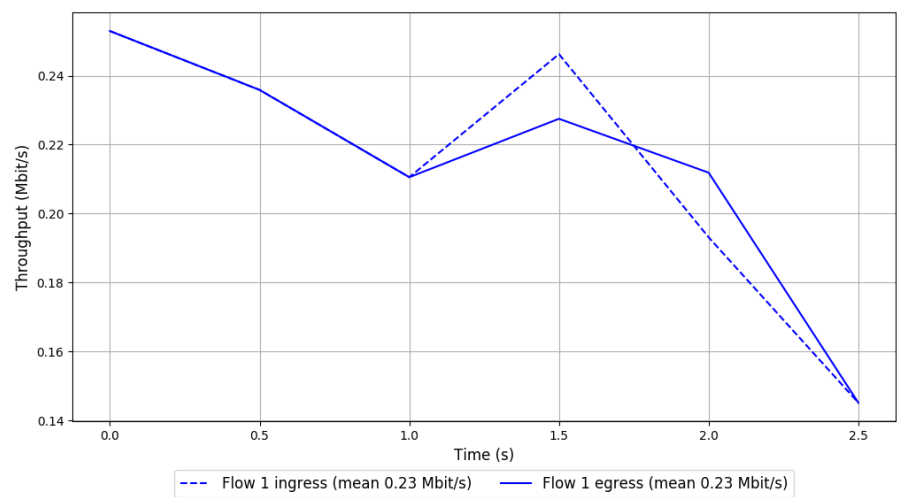## Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 85.01 Mbit/s) --- Flow 1 egress (mean 85.00 Mbit/s)

Flow 1 (95th percentile 17.41 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-11 16:58:43
End at: 2017-12-11 16:59:14
Local clock offset: -2.806 ms
Remote clock offset: -0.527 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.60 Mbit/s
95th percentile per-packet one-way delay: 19.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.60 Mbit/s
95th percentile per-packet one-way delay: 19.128 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 81.60 Mbit/s) ----- Flow 1 egress (mean 81.60 Mbit/s)

Flow 1 (95th percentile 19.13 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-12-11 14:06:14
End at: 2017-12-11 14:06:44
Local clock offset: -7.258 ms
Remote clock offset: -0.563 ms
```
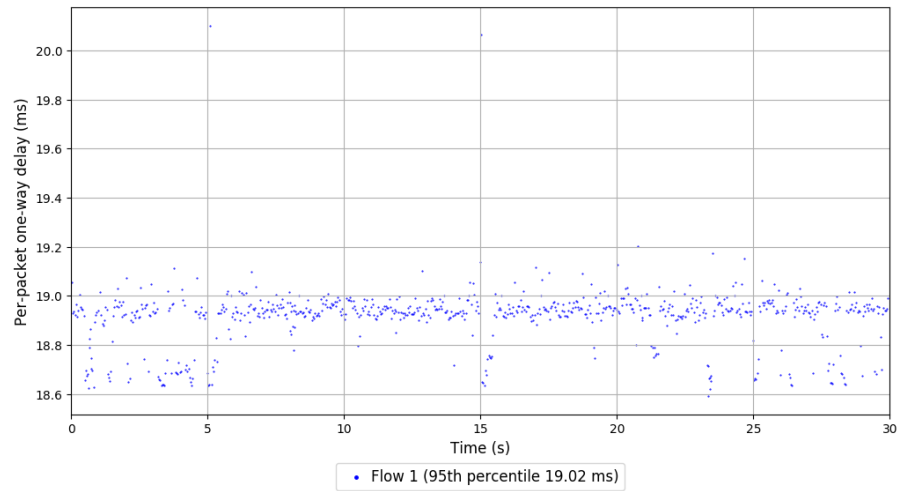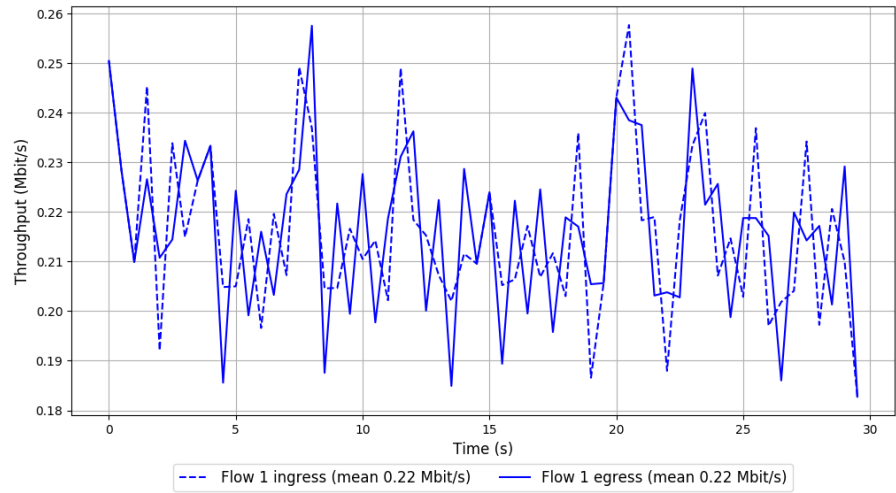
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-12-11 14:24:31
End at: 2017-12-11 14:25:01
Local clock offset: -7.0 ms
Remote clock offset: -0.841 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.020 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.020 ms
Loss rate: 0.00%
```
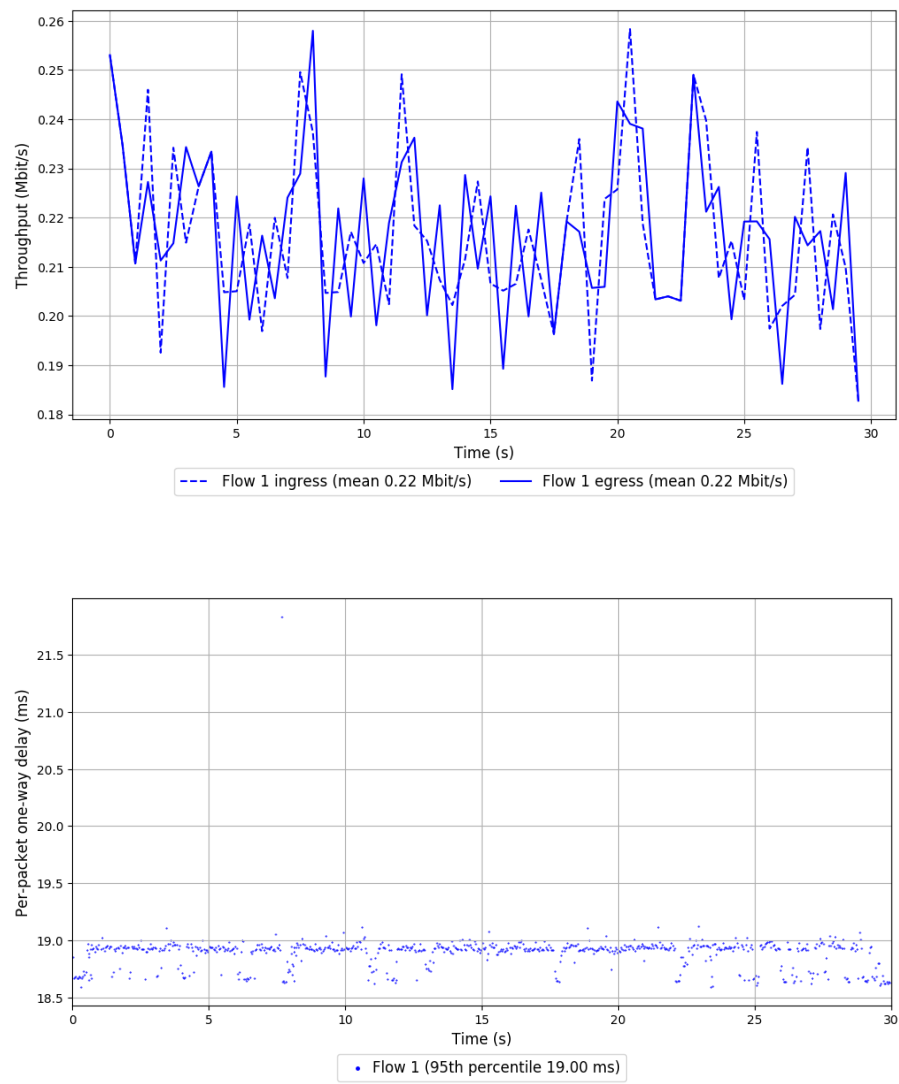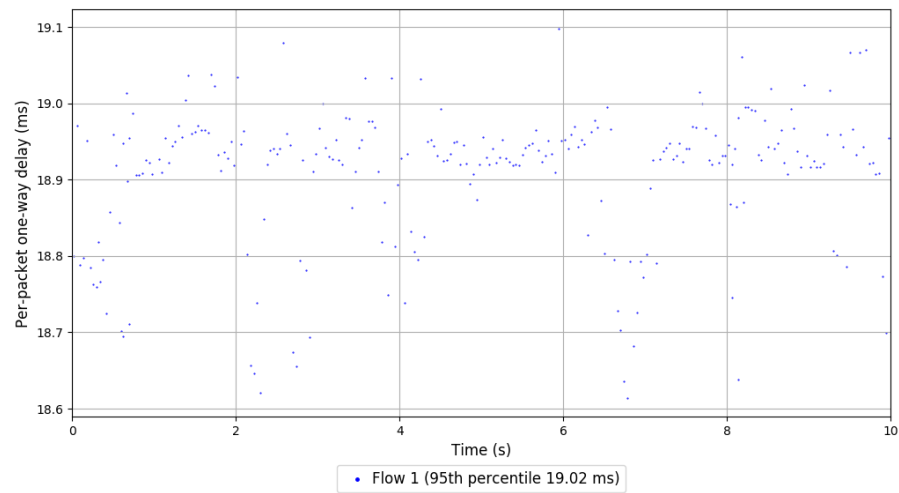
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 19.02 ms)

```
Run 3: Statistics of SCReAM

Start at: 2017-12-11 14:43:03
End at: 2017-12-11 14:43:33
Local clock offset: -6.946 ms
Remote clock offset: -0.806 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.996 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.996 ms
Loss rate: 0.00%
```

Run 3: 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 19.00 ms)

```
Run 4: Statistics of SCReAM

Start at: 2017-12-11 15:01:57
End at: 2017-12-11 15:02:27
Local clock offset: -6.832 ms
Remote clock offset: -0.746 ms
```
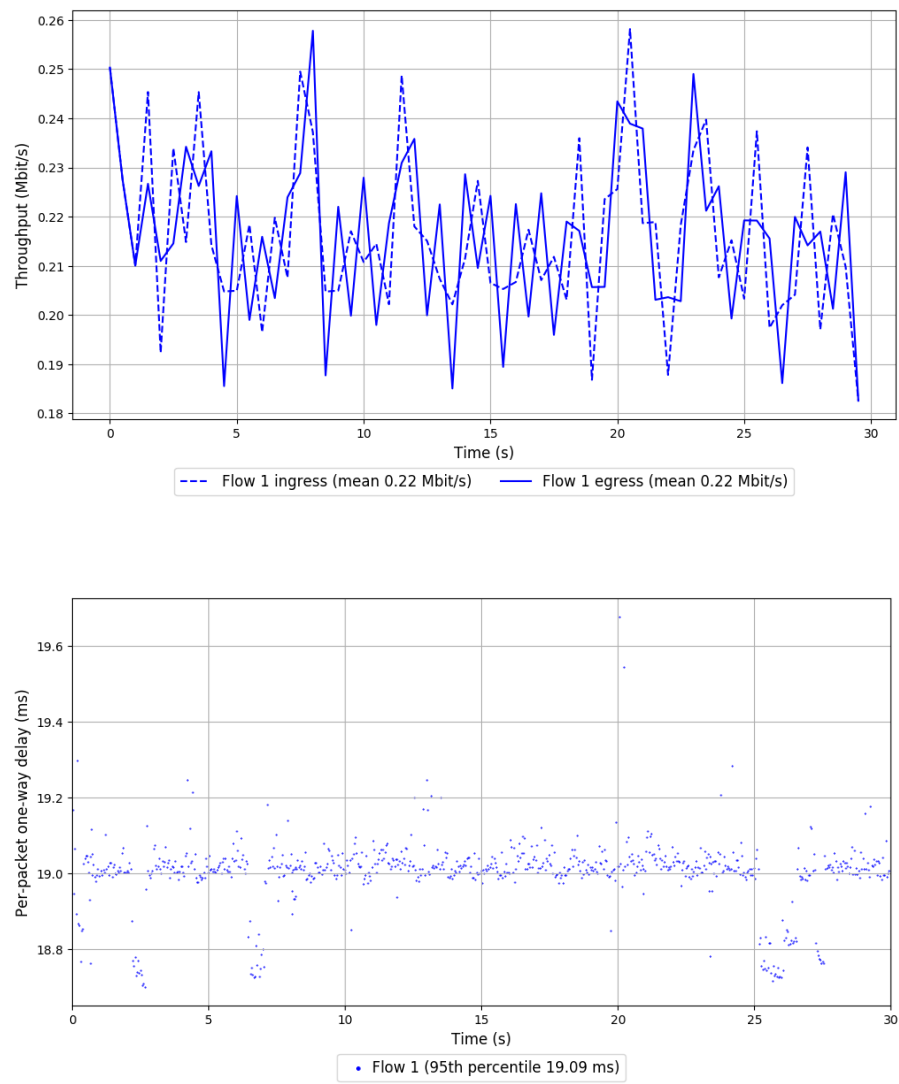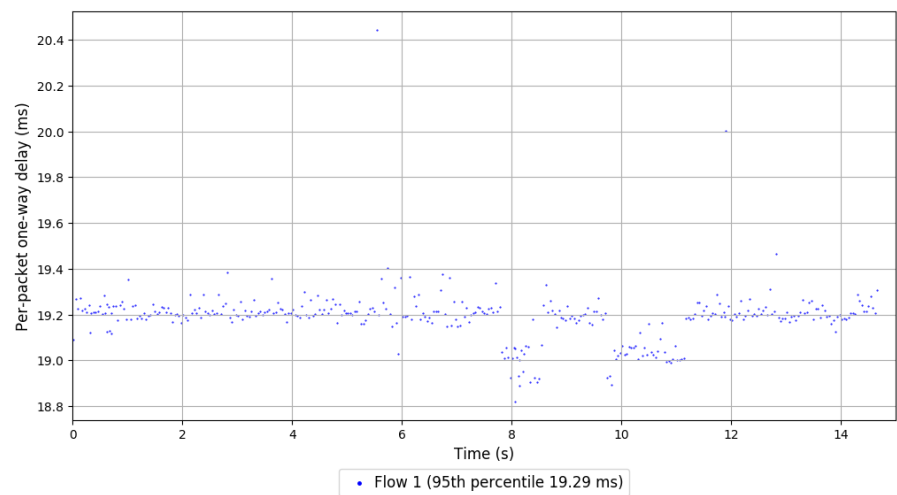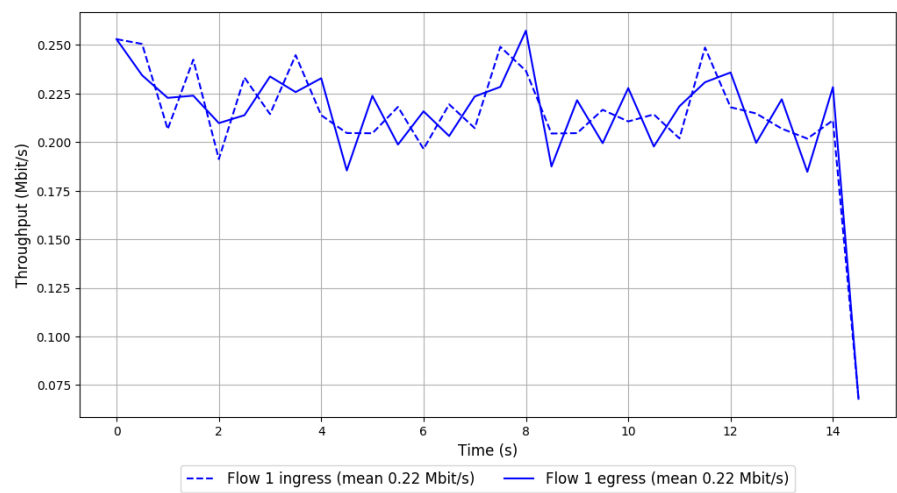
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2017-12-11 15:20:25
End at: 2017-12-11 15:20:55
Local clock offset: -6.697 ms
Remote clock offset: -1.006 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.092 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.092 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-12-11 15:39:04
End at: 2017-12-11 15:39:34
Local clock offset: -6.739 ms
Remote clock offset: -0.985 ms
```

Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2017-12-11 15:57:32
End at: 2017-12-11 15:58:02
Local clock offset: -6.538 ms
Remote clock offset: -0.676 ms
```
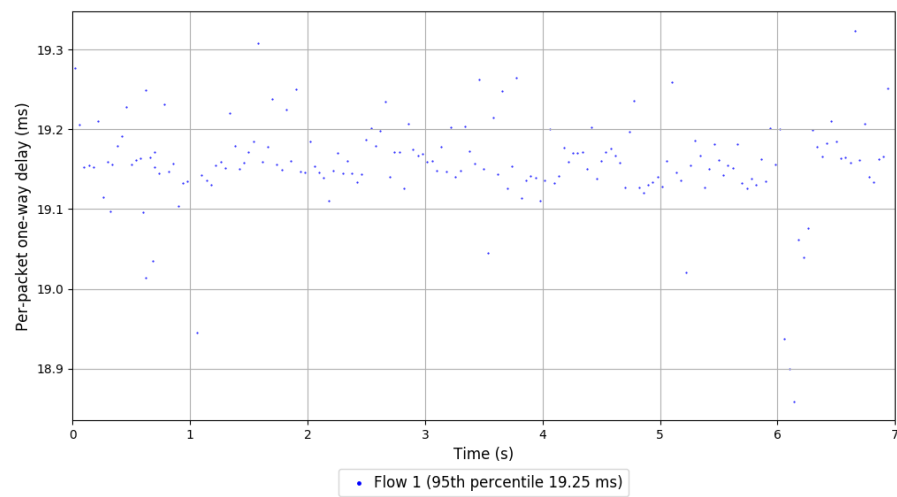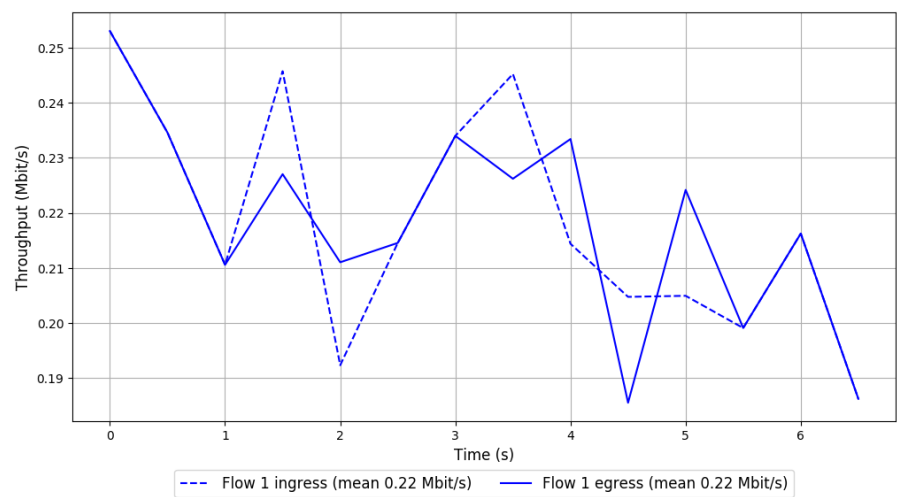
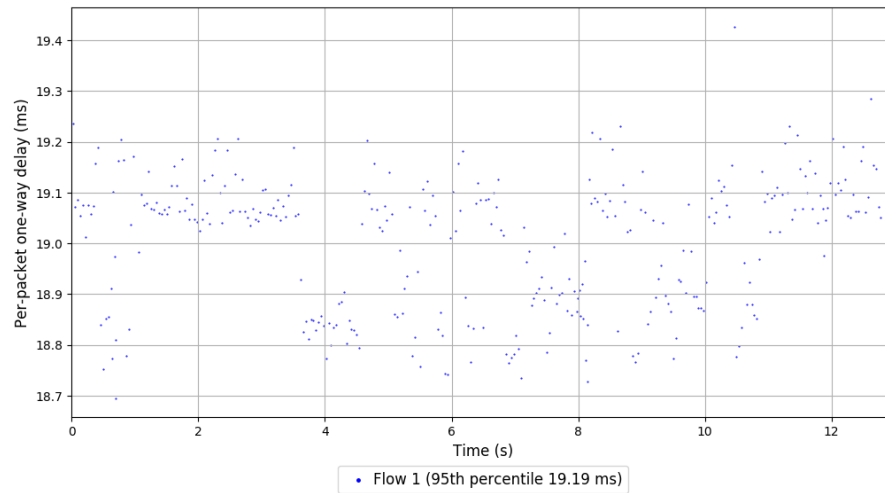# Run 7: Report of SCReAM — Data Link
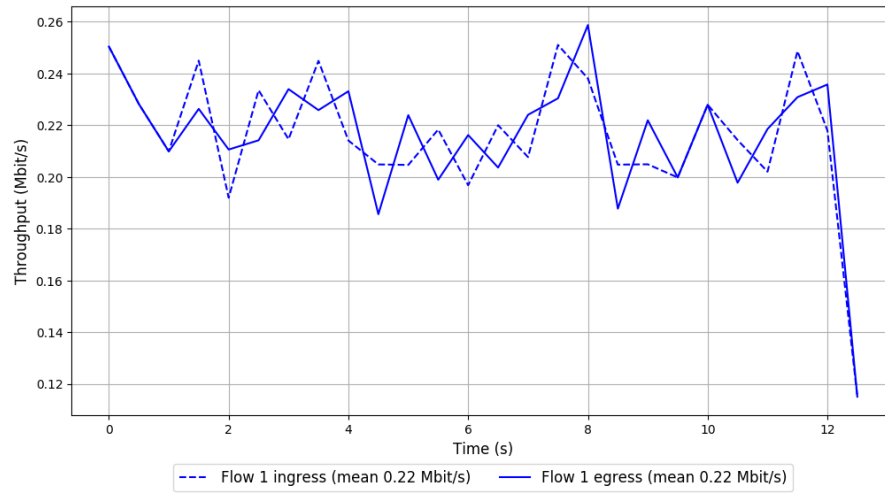
```
Run 8: Statistics of SCReAM

Start at: 2017-12-11 16:16:06
End at: 2017-12-11 16:16:36
Local clock offset: -5.199 ms
Remote clock offset: -0.747 ms
```

Run 8: Report of SCReAM — Data Link
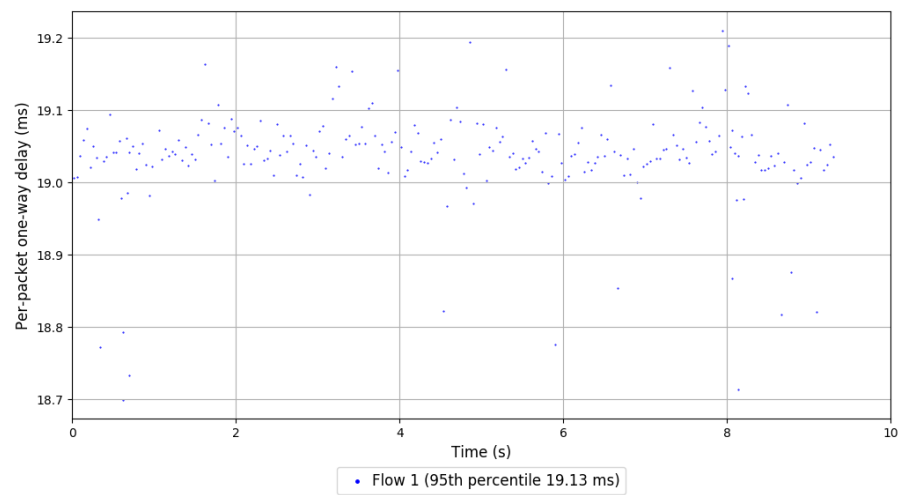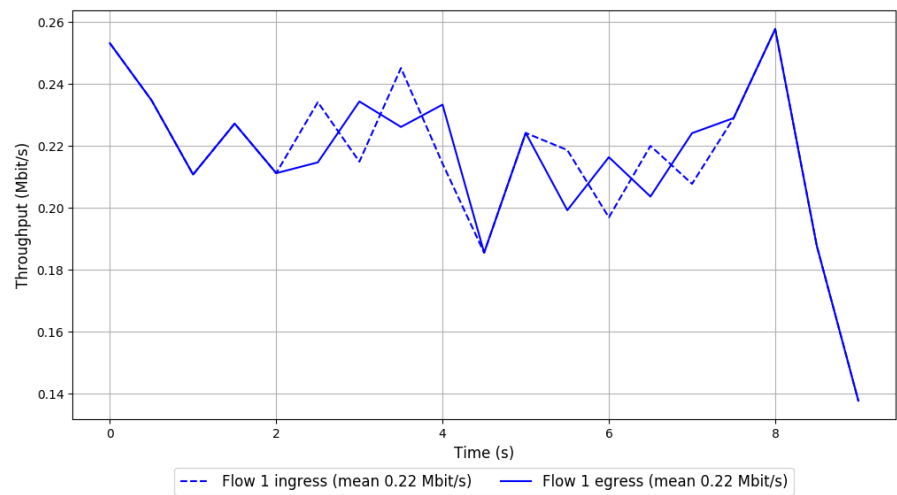
```
Run 9: Statistics of SCReAM

Start at: 2017-12-11 16:34:39
End at: 2017-12-11 16:35:09
Local clock offset: -4.379 ms
Remote clock offset: -0.398 ms
```
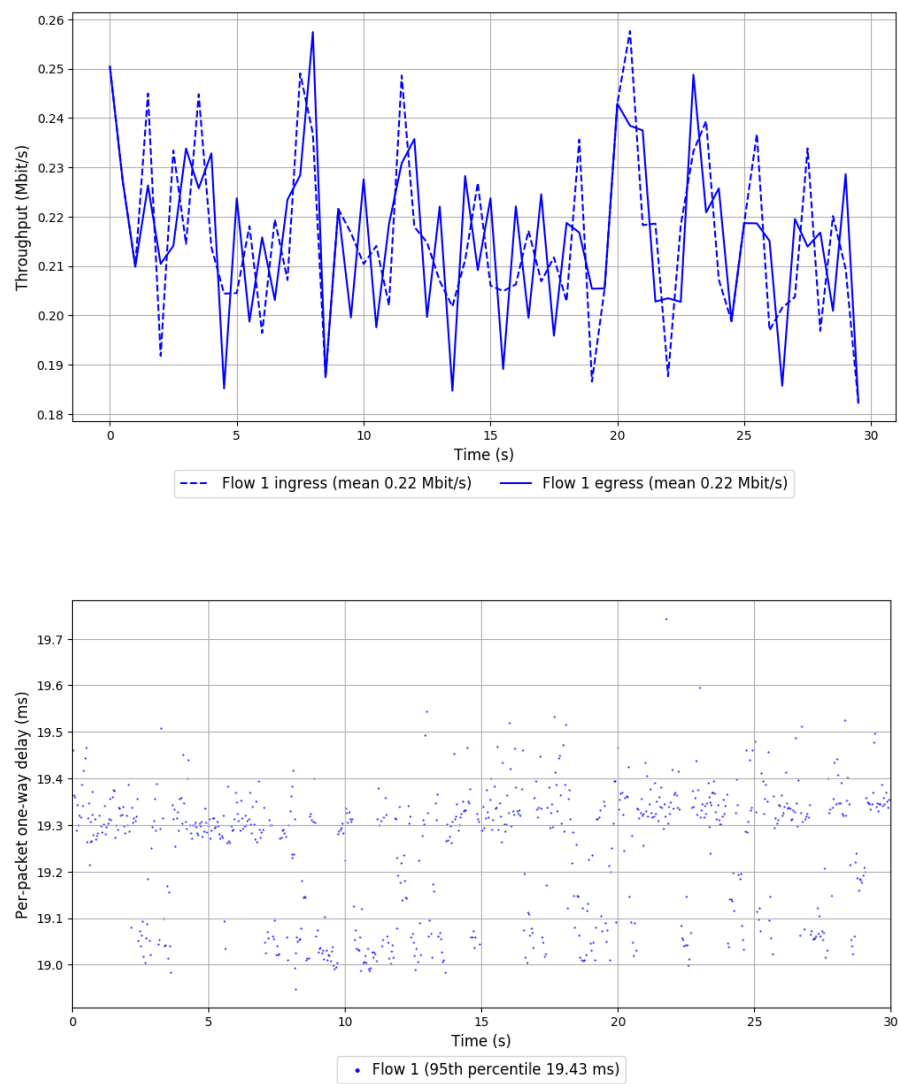
Run 9: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 19.13 ms)

```
Run 10: Statistics of SCReAM

Start at: 2017-12-11 16:53:24
End at: 2017-12-11 16:53:54
Local clock offset: -3.244 ms
Remote clock offset: -0.446 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.425 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.425 ms
Loss rate: 0.00%
```

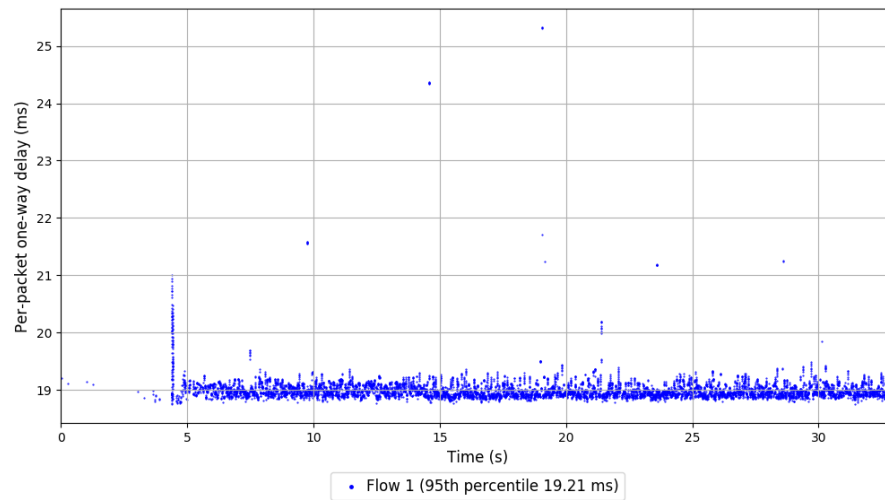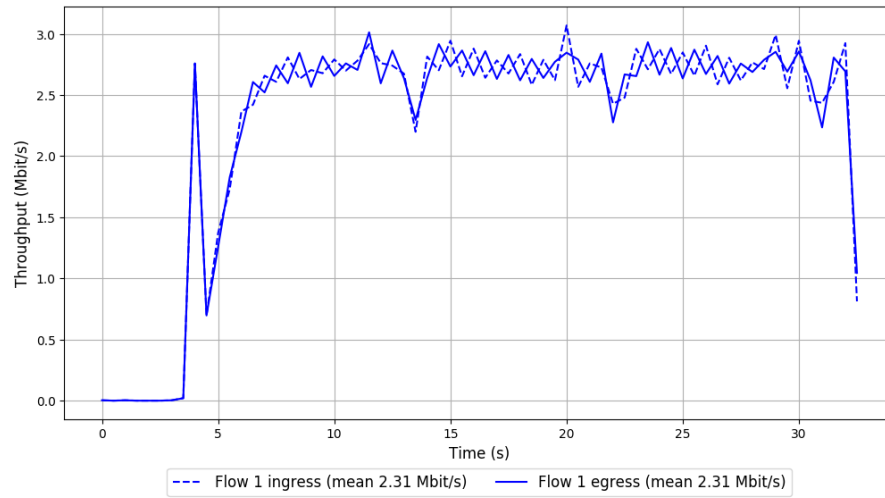Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2017-12-11 14:16:51
End at: 2017-12-11 14:17:21
Local clock offset: -7.092 ms
Remote clock offset: -0.723 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
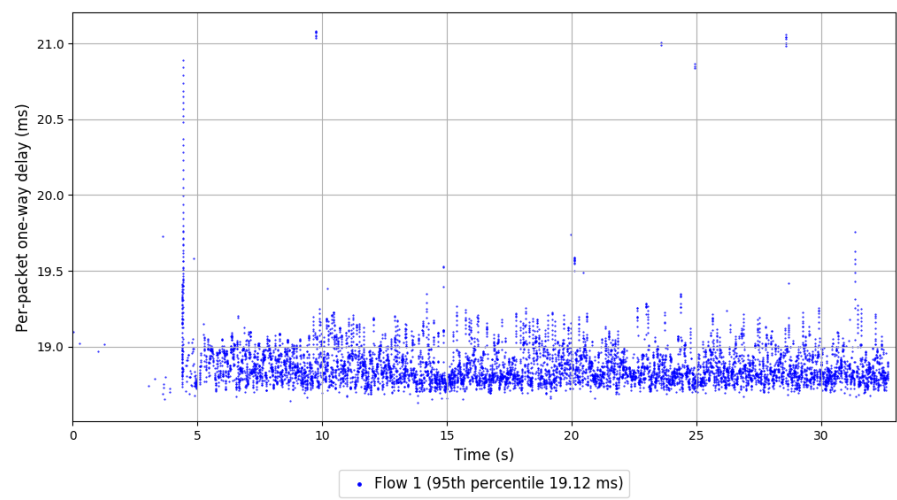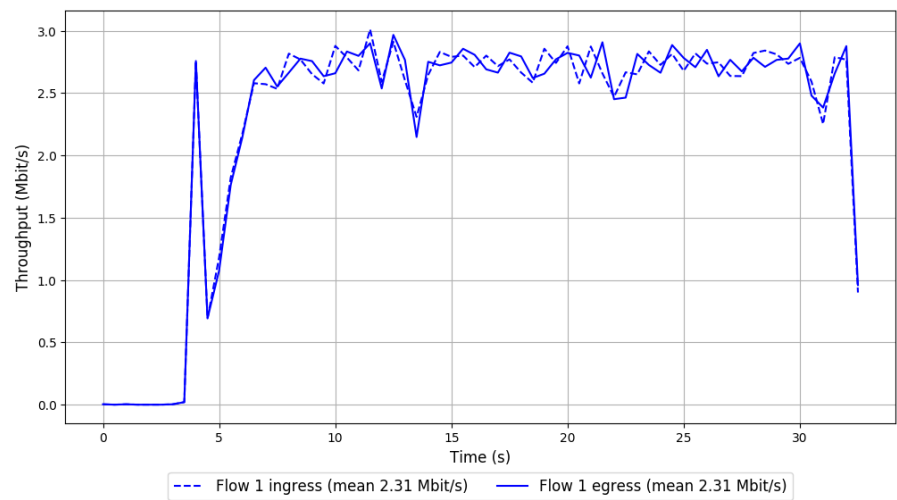```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2017-12-11 14:35:24
End at: 2017-12-11 14:35:54
Local clock offset: -7.058 ms
Remote clock offset: -0.943 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.119 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.31 Mbit/s)   Flow 1 egress (mean 2.31 Mbit/s)

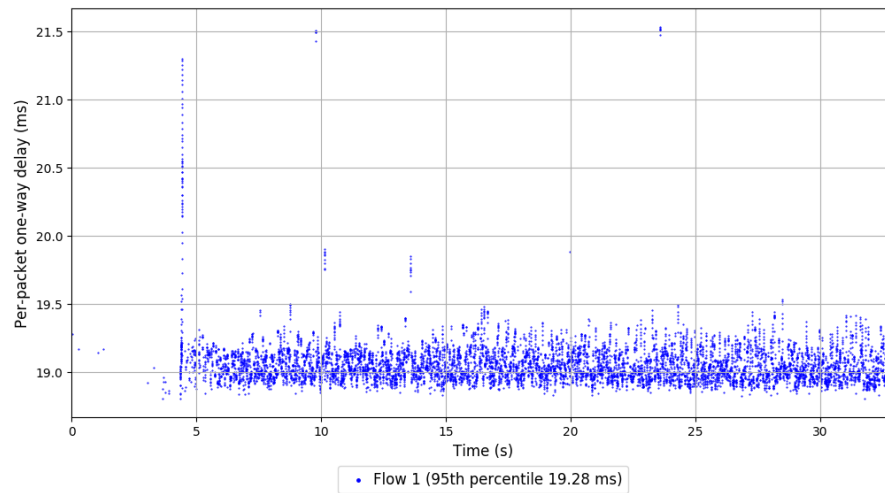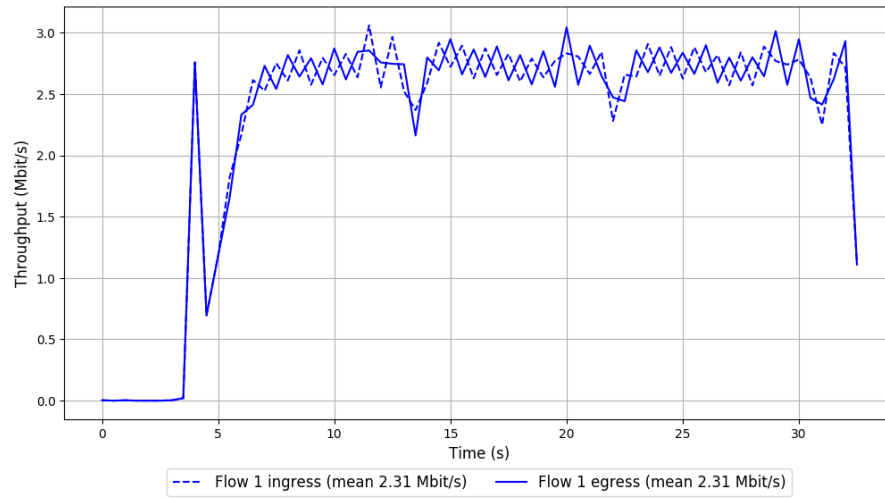

Flow 1 (95th percentile 19.12 ms)

```
Run 3: Statistics of WebRTC media

Start at: 2017-12-11 14:54:00
End at: 2017-12-11 14:54:30
Local clock offset: -6.896 ms
Remote clock offset: -0.751 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.277 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.31 Mbit/s) --- Flow 1 egress (mean 2.31 Mbit/s)
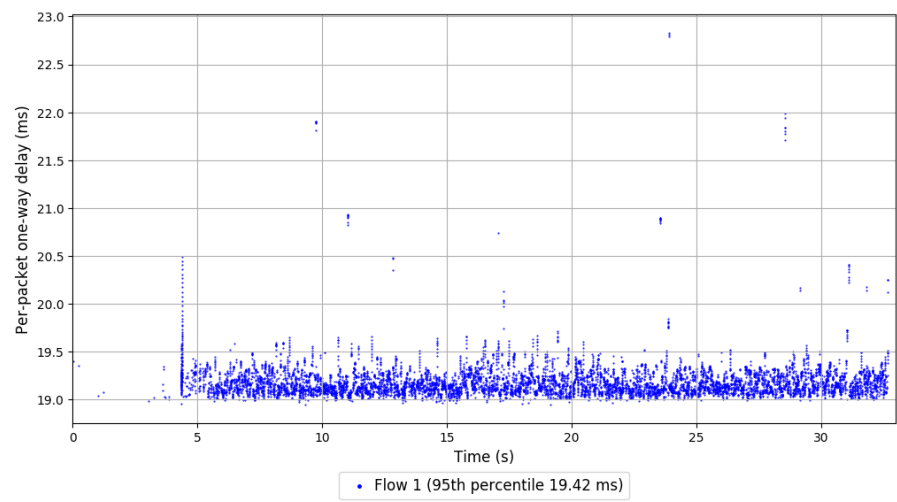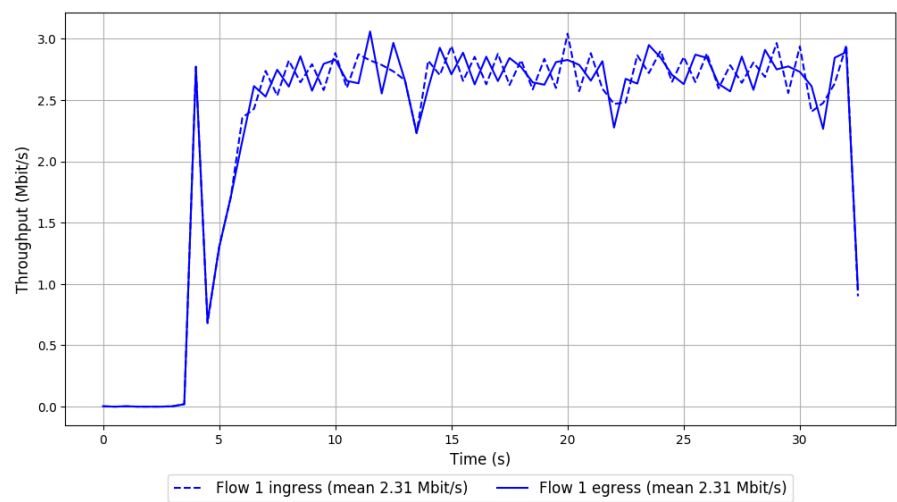

Flow 1 (95th percentile 19.28 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2017-12-11 15:12:36
End at: 2017-12-11 15:13:06
Local clock offset: -6.81 ms
Remote clock offset: -0.884 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.417 ms
Loss rate: 0.00%
```
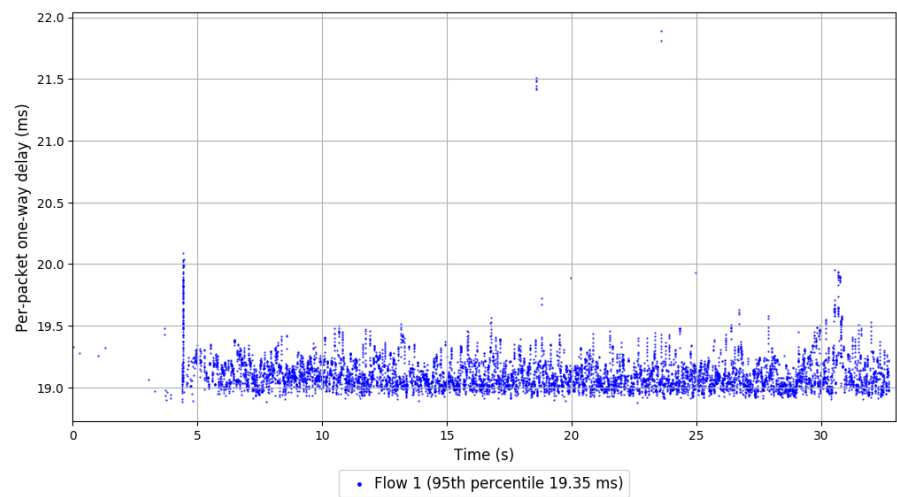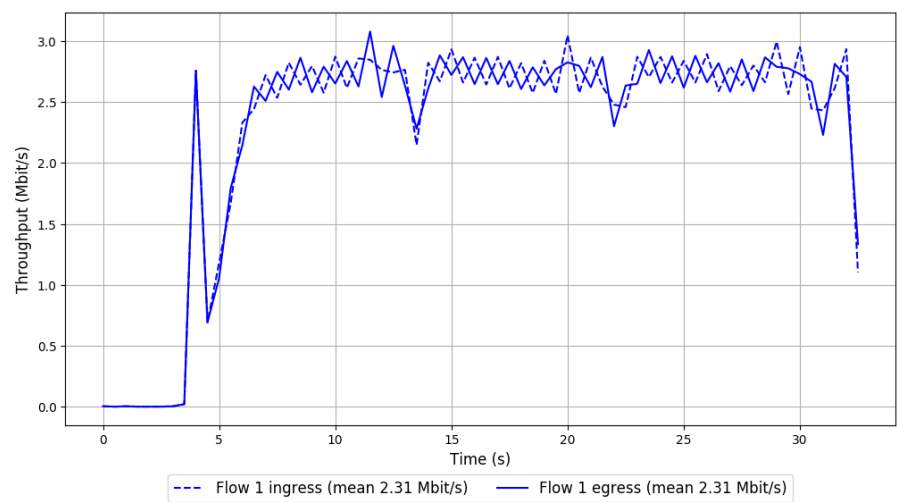
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-12-11 15:31:02
End at: 2017-12-11 15:31:32
Local clock offset: -6.706 ms
Remote clock offset: -1.069 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.346 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.346 ms
Loss rate: 0.00%
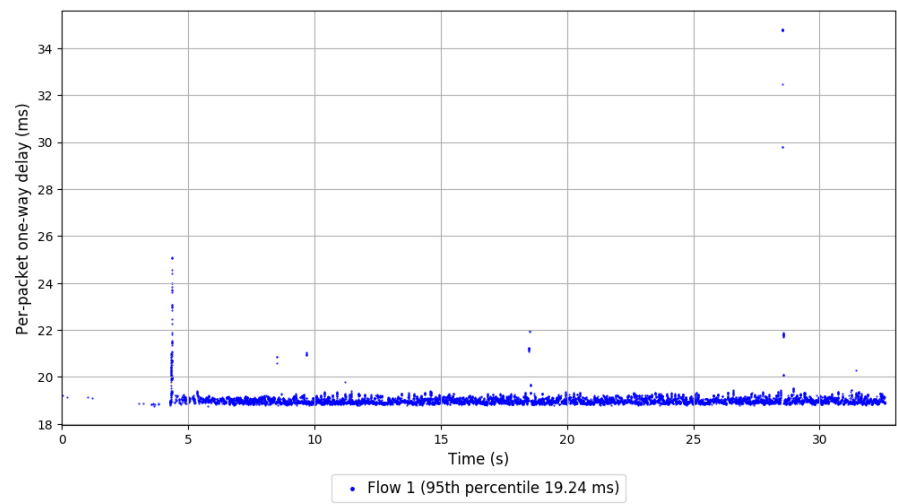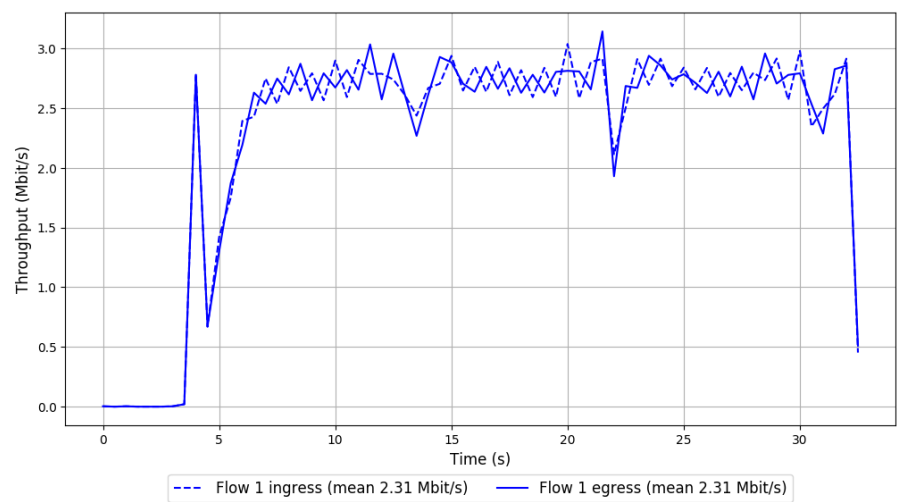```

Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-12-11 15:49:43
End at: 2017-12-11 15:50:13
Local clock offset: -6.729 ms
Remote clock offset: -0.682 ms

Below is generated by plot.py at 2017-12-11 18:59:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.243 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.243 ms
Loss rate: 0.00%
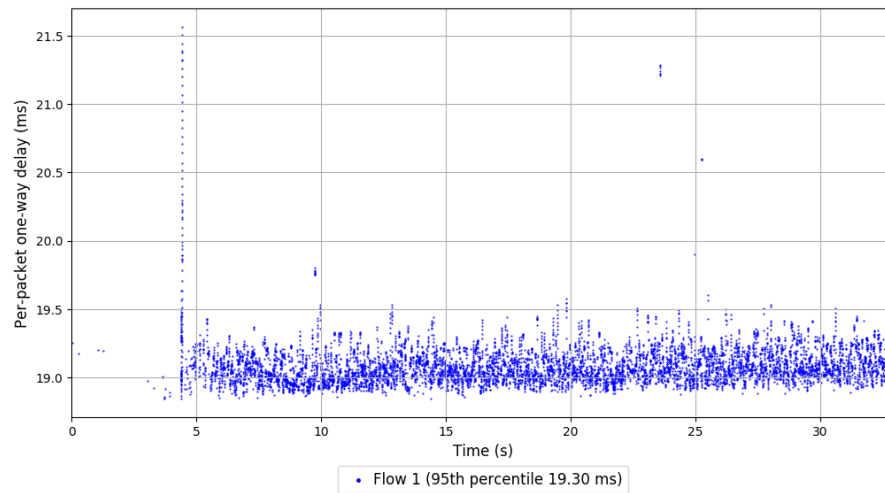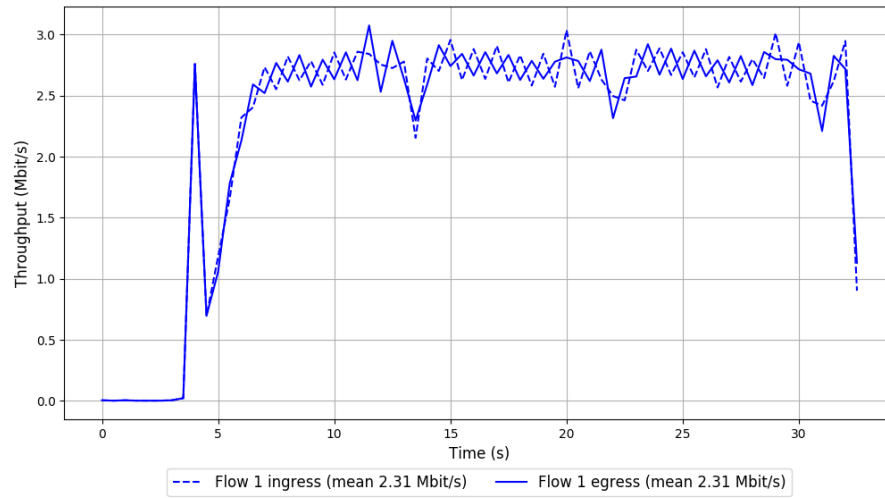```

Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-12-11 16:08:12
End at: 2017-12-11 16:08:42
Local clock offset: -5.86 ms
Remote clock offset: -0.838 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.303 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.303 ms
Loss rate: 0.00%
```
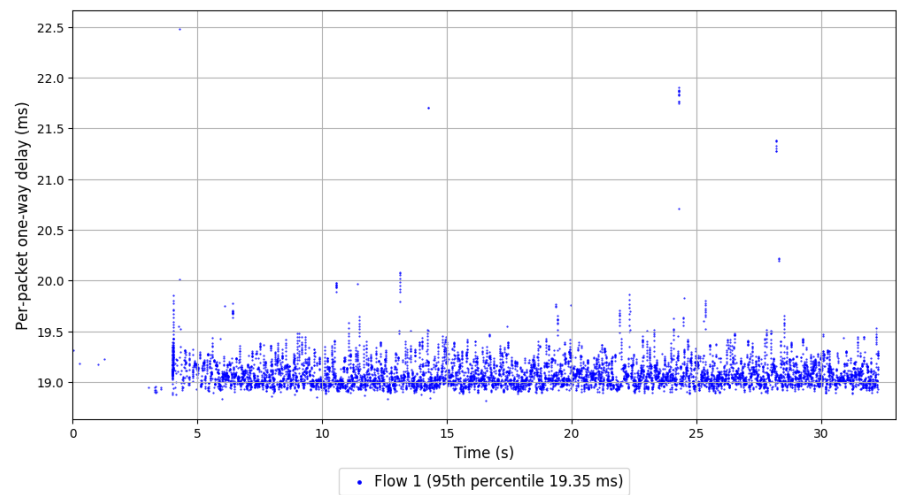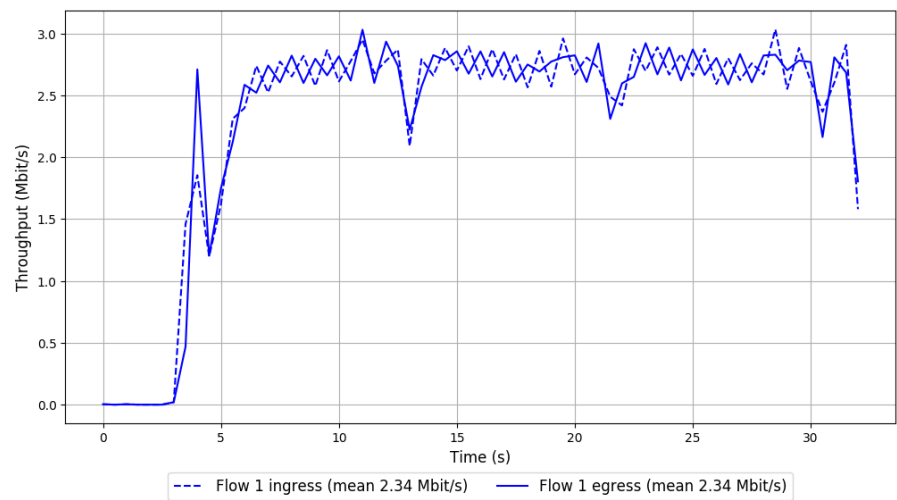
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2017-12-11 16:26:42
End at: 2017-12-11 16:27:12
Local clock offset: -4.555 ms
Remote clock offset: -0.581 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 19.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 19.349 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.34 Mbit/s)   Flow 1 egress (mean 2.34 Mbit/s)

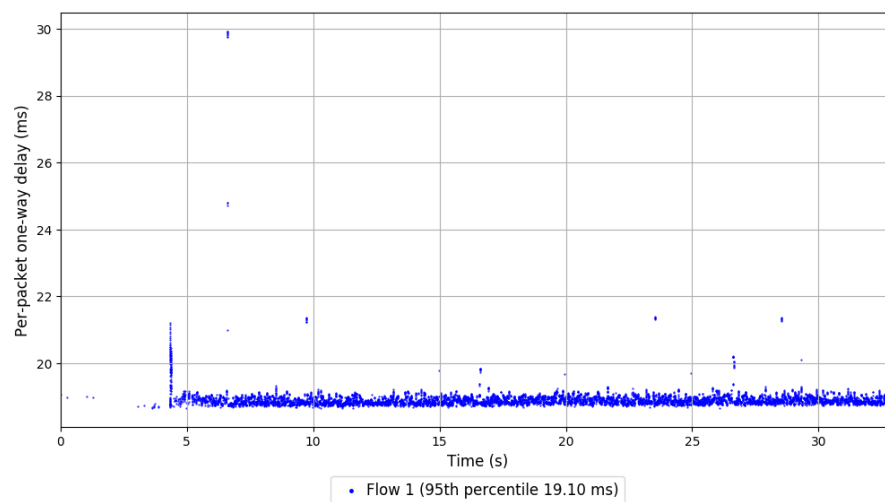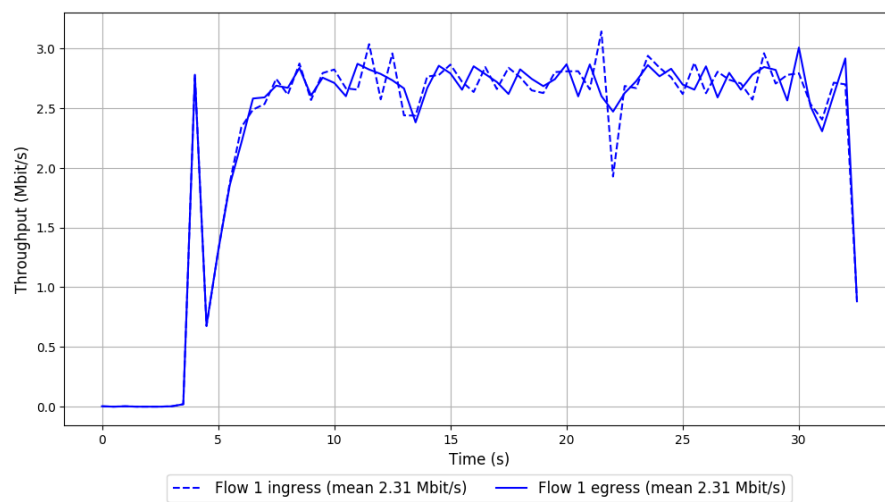

Flow 1 (95th percentile 19.35 ms)

```
Run 9: Statistics of WebRTC media

Start at: 2017-12-11 16:45:30
End at: 2017-12-11 16:46:00
Local clock offset: -3.784 ms
Remote clock offset: -0.248 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.104 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 19.104 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.31 Mbit/s)   Flow 1 egress (mean 2.31 Mbit/s)

Flow 1 (95th percentile 19.10 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2017-12-11 17:04:01
End at: 2017-12-11 17:04:31
Local clock offset: -2.526 ms
Remote clock offset: -0.74 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 17.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 17.589 ms
Loss rate: 0.00%
```
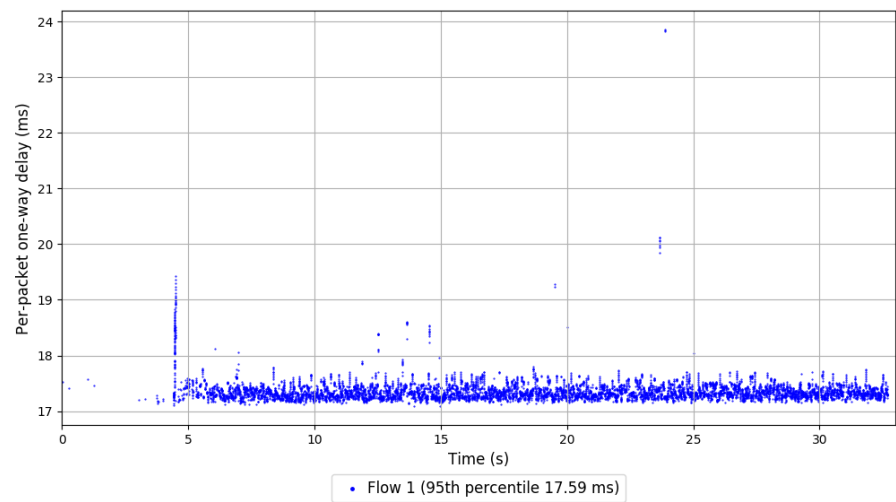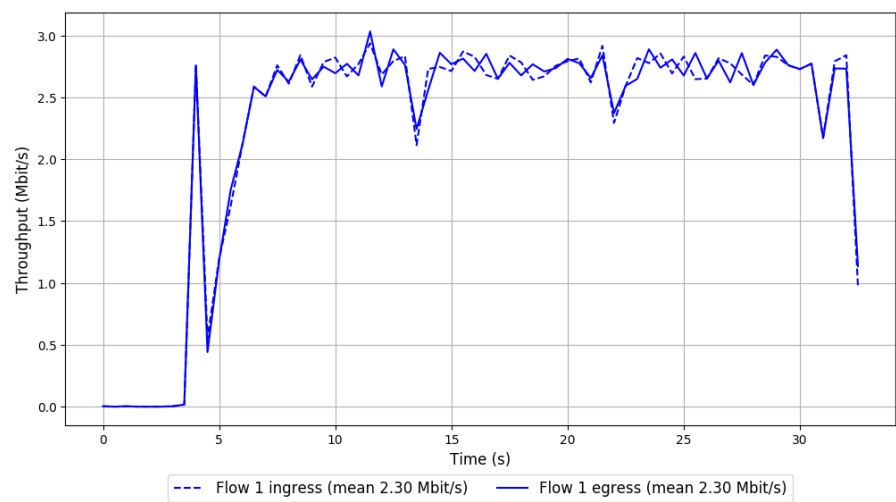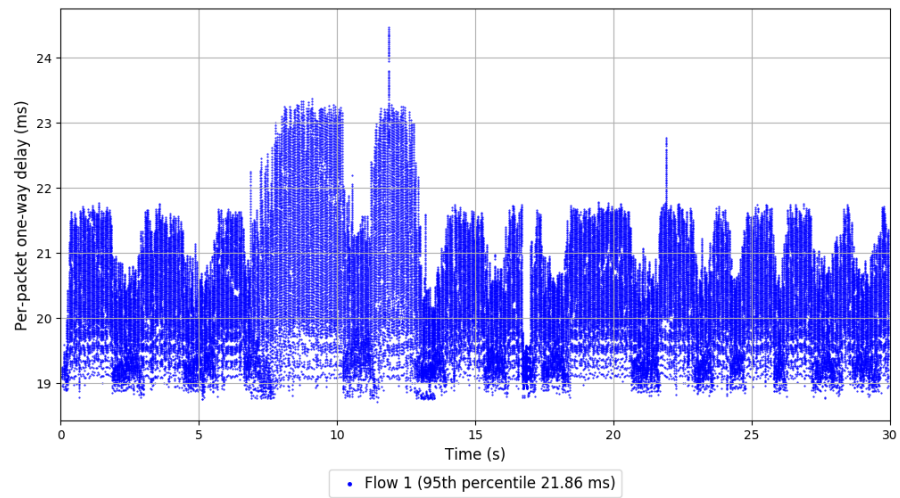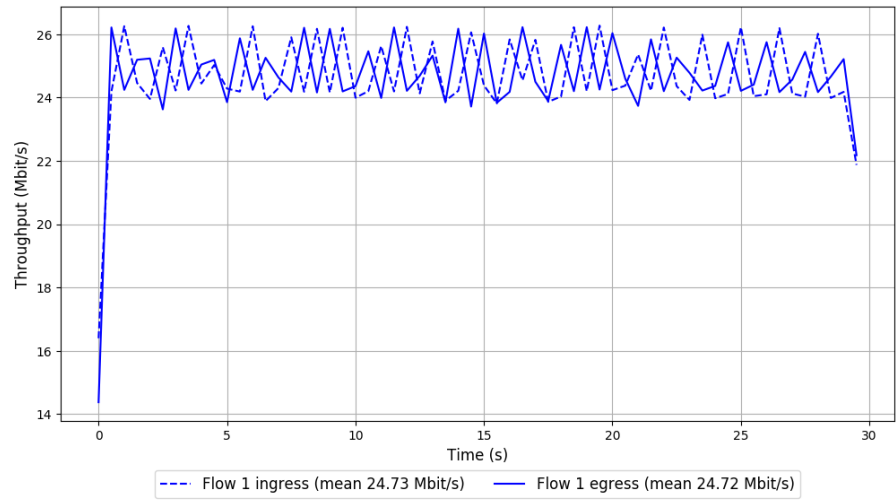
Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2017-12-11 14:07:24
End at: 2017-12-11 14:07:54
Local clock offset: -7.353 ms
Remote clock offset: -0.602 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 21.855 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 21.855 ms
Loss rate: 0.02%
```

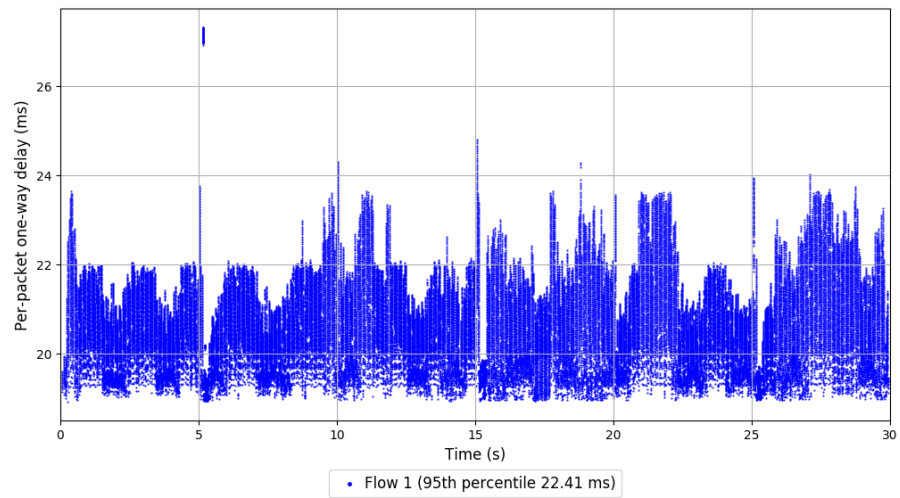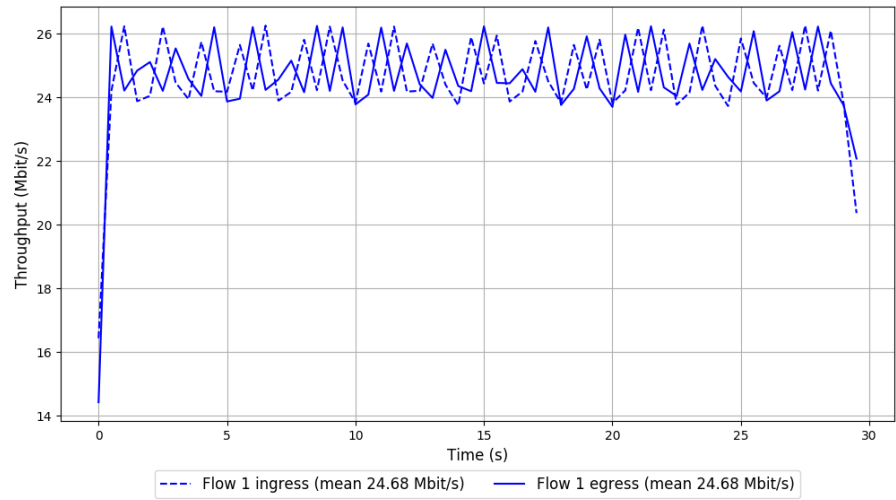Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-12-11 14:25:41
End at: 2017-12-11 14:26:11
Local clock offset: -7.072 ms
Remote clock offset: -0.861 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 22.410 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 22.410 ms
Loss rate: 0.00%
```

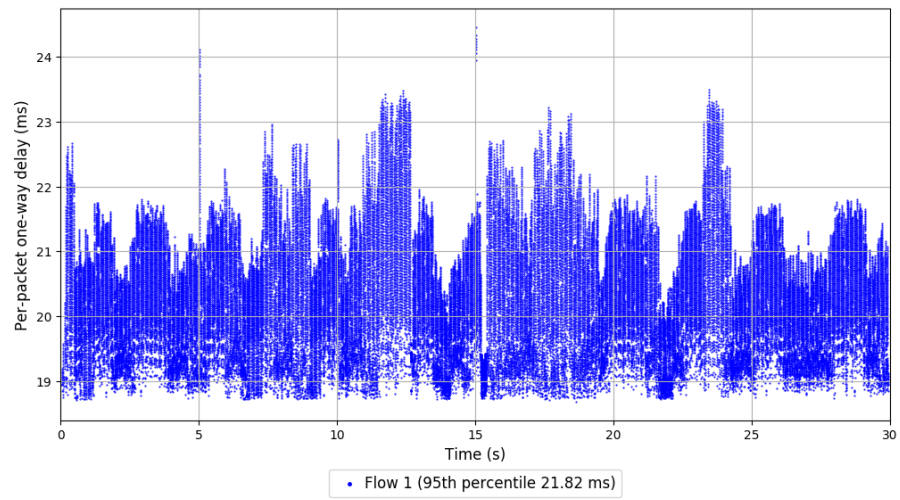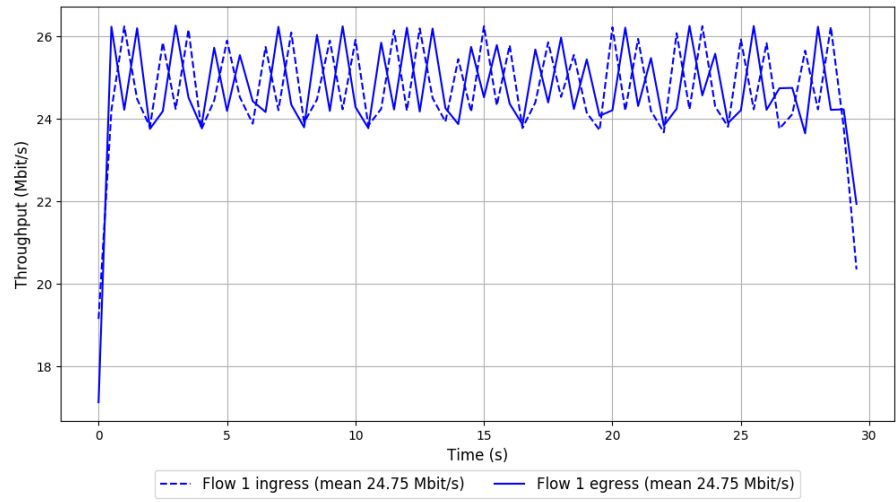Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-12-11 14:44:13
End at: 2017-12-11 14:44:43
Local clock offset: -7.016 ms
Remote clock offset: -0.801 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 21.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 21.817 ms
Loss rate: 0.00%
```

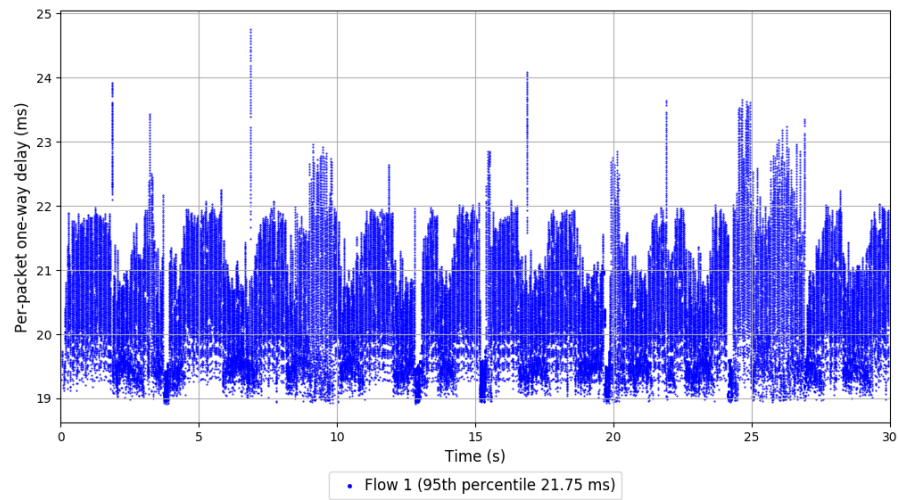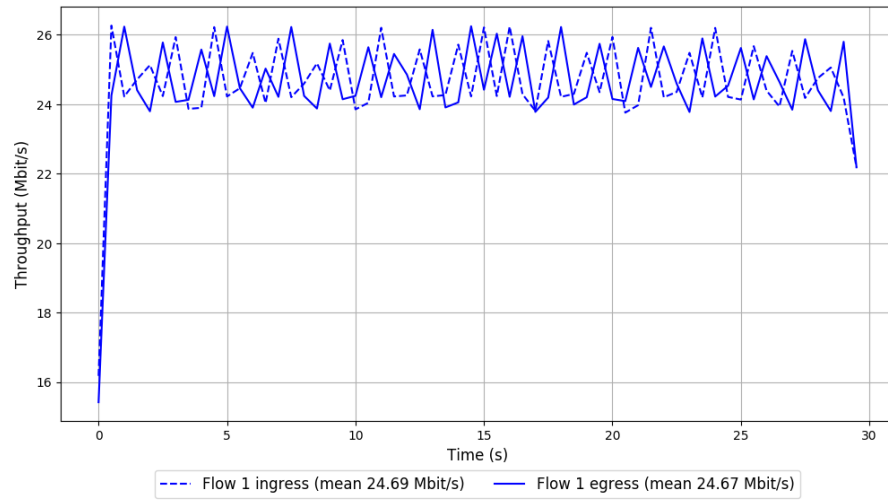Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2017-12-11 15:03:07
End at: 2017-12-11 15:03:37
Local clock offset: -6.911 ms
Remote clock offset: -0.783 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 21.747 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 21.747 ms
Loss rate: 0.07%
```

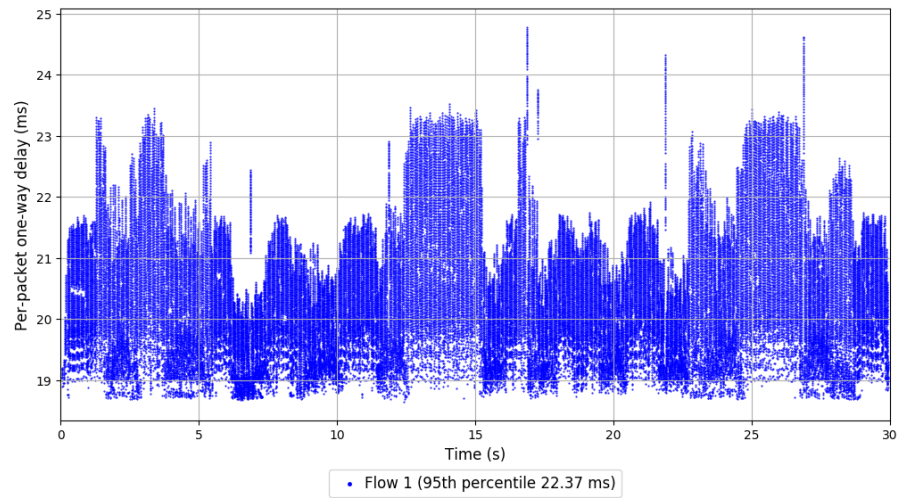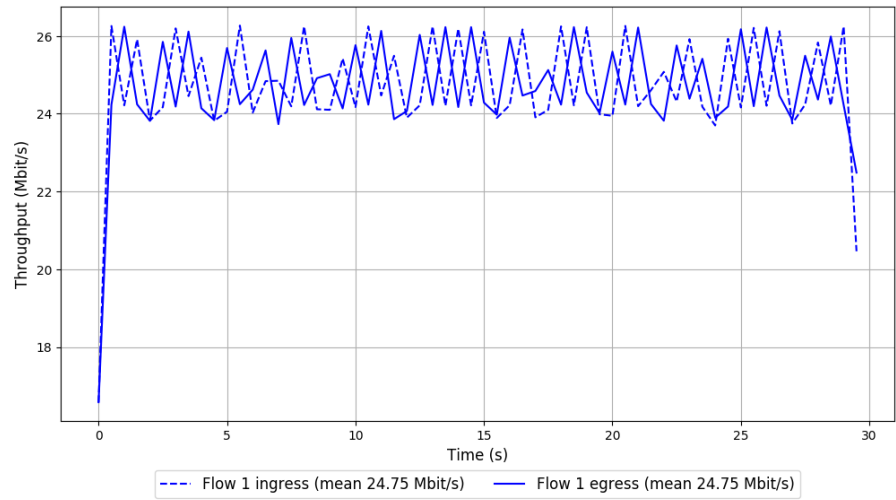# Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2017-12-11 15:21:35
End at: 2017-12-11 15:22:05
Local clock offset: -6.701 ms
Remote clock offset: -1.061 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 22.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 22.367 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 24.75 Mbit/s)   Flow 1 egress (mean 24.75 Mbit/s)
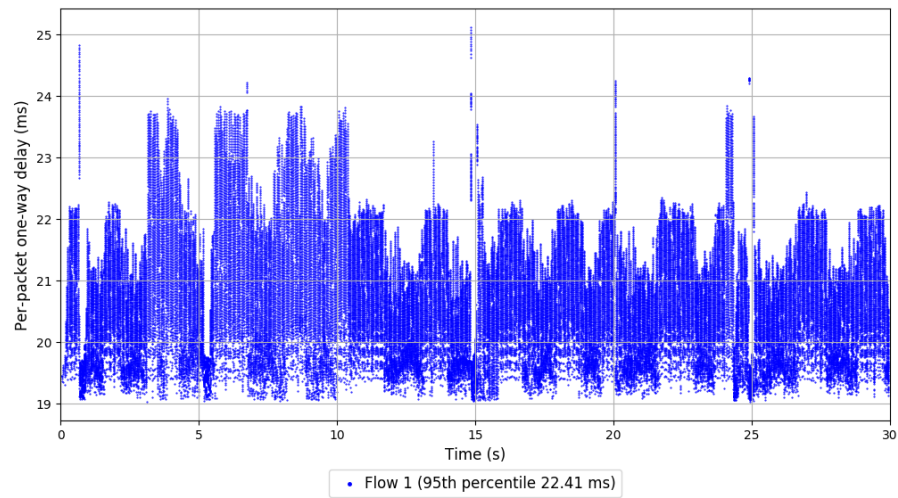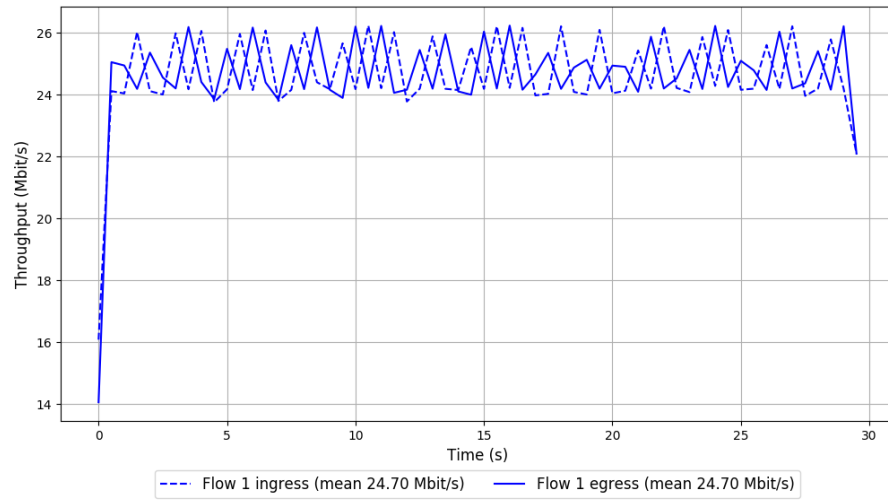

Flow 1 (95th percentile 22.37 ms)

```
Run 6: Statistics of Sprout

Start at: 2017-12-11 15:40:14
End at: 2017-12-11 15:40:44
Local clock offset: -6.763 ms
Remote clock offset: -0.853 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 22.405 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 22.405 ms
Loss rate: 0.00%
```

Run 6: Report of Sprout — Data Link

Flow 1 ingress (mean 24.70 Mbit/s)   Flow 1 egress (mean 24.70 Mbit/s)

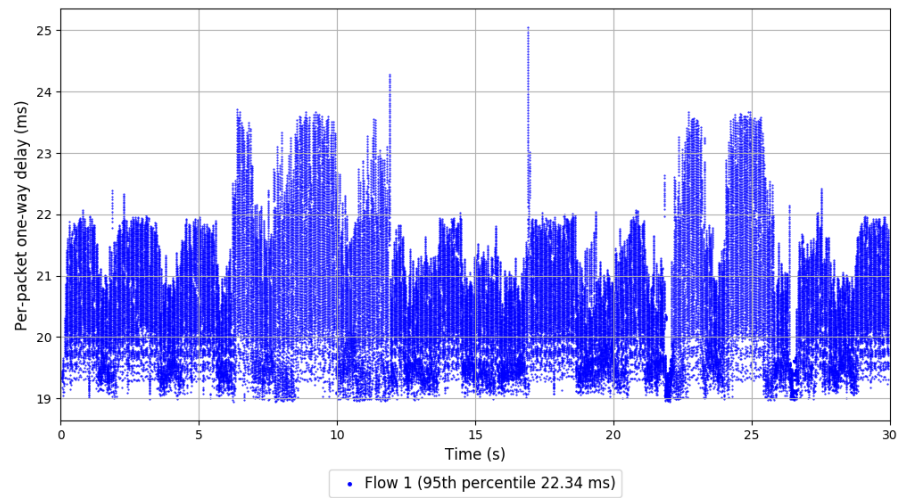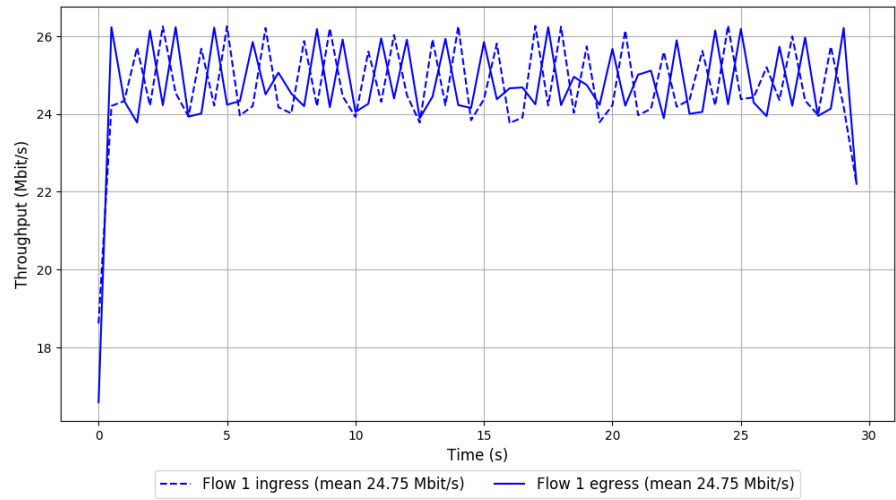• Flow 1 (95th percentile 22.41 ms)

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```
Run 7: Statistics of Sprout

Start at: 2017-12-11 15:58:42
End at: 2017-12-11 15:59:12
Local clock offset: -6.519 ms
Remote clock offset: -0.799 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 22.345 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 22.345 ms
Loss rate: 0.01%
```

Run 7: Report of Sprout — Data Link

Flow 1 ingress (mean 24.75 Mbit/s) --- Flow 1 egress (mean 24.75 Mbit/s)

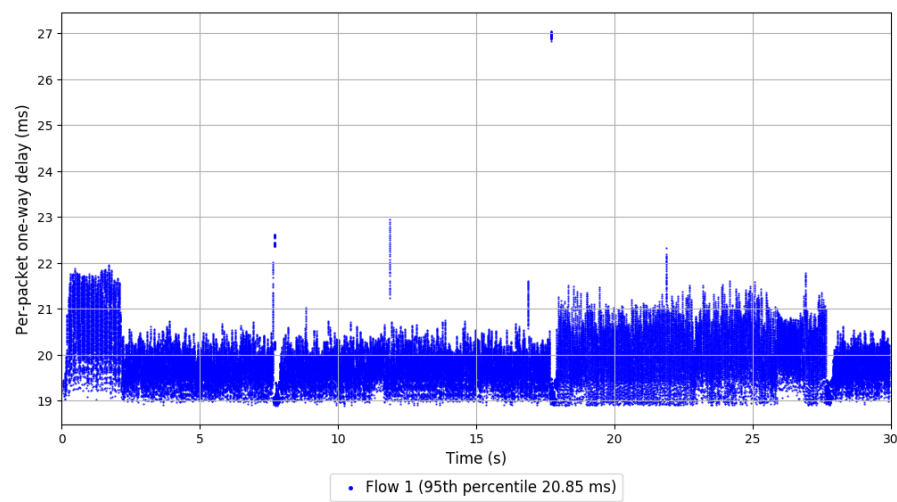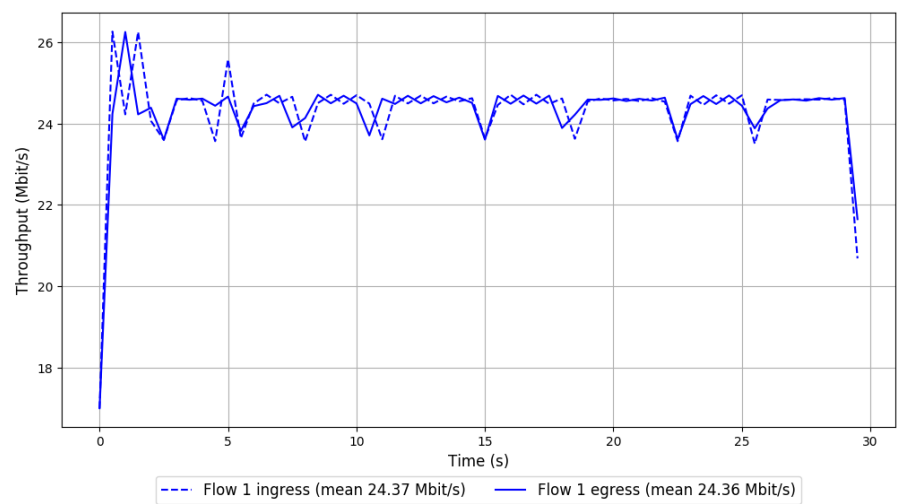Flow 1 (95th percentile 22.34 ms)

```
Run 8: Statistics of Sprout

Start at: 2017-12-11 16:17:16
End at: 2017-12-11 16:17:46
Local clock offset: -5.025 ms
Remote clock offset: -0.731 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 20.851 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 20.851 ms
Loss rate: 0.05%
```

Run 8: Report of Sprout — Data Link

Flow 1 ingress (mean 24.37 Mbit/s)   Flow 1 egress (mean 24.36 Mbit/s)

Flow 1 (95th percentile 20.85 ms)

```
Run 9: Statistics of Sprout

Start at: 2017-12-11 16:35:49
End at: 2017-12-11 16:36:19
Local clock offset: -4.455 ms
Remote clock offset: -0.49 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 21.809 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 21.809 ms
Loss rate: 0.00%
```
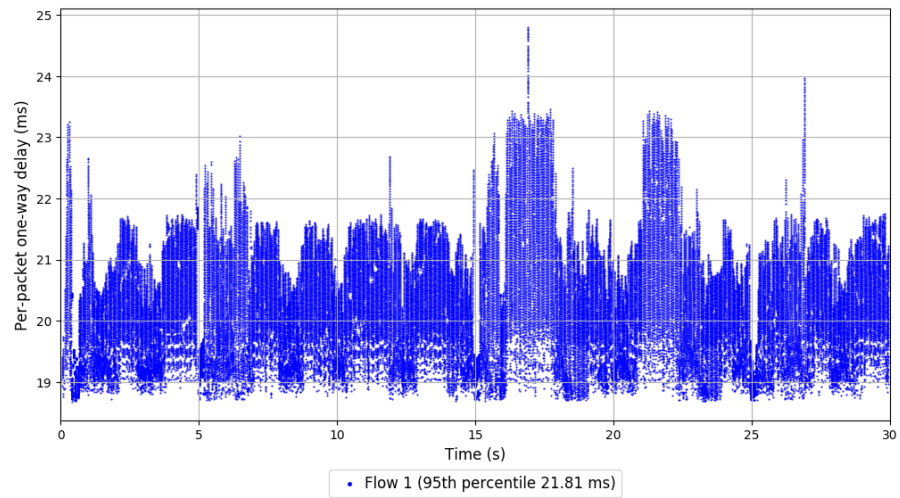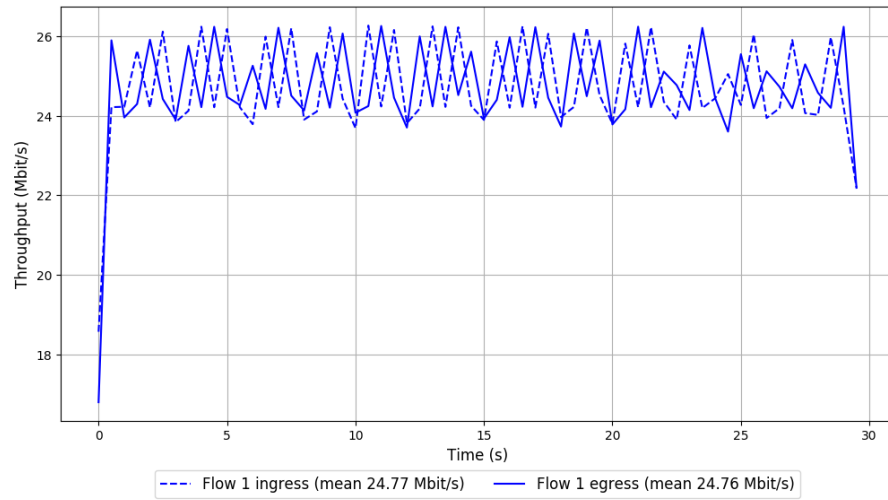
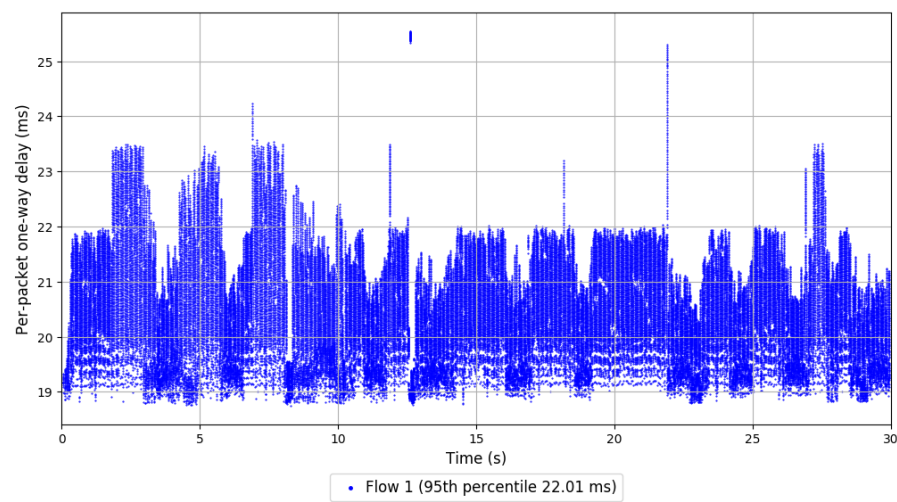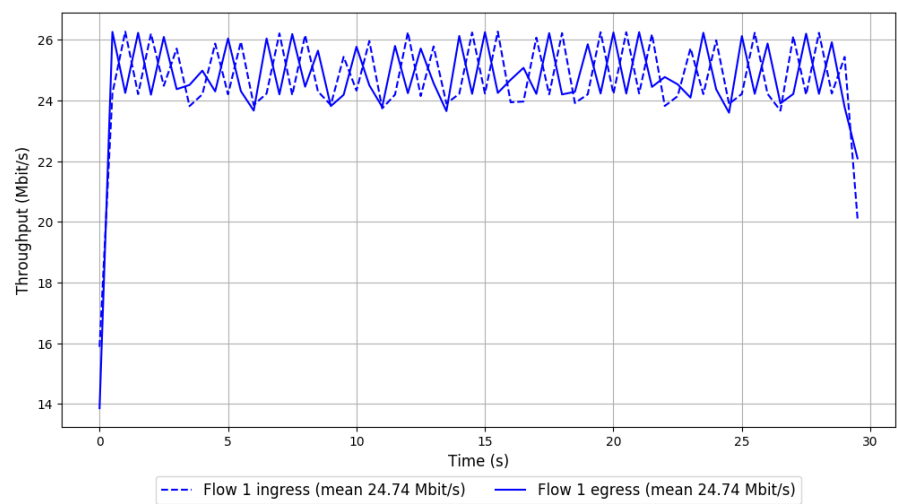Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2017-12-11 16:54:34
End at: 2017-12-11 16:55:04
Local clock offset: -3.153 ms
Remote clock offset: -0.477 ms


# Below is generated by plot.py at 2017-12-11 18:59:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 22.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 22.012 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 24.74 Mbit/s)   Flow 1 egress (mean 24.74 Mbit/s)

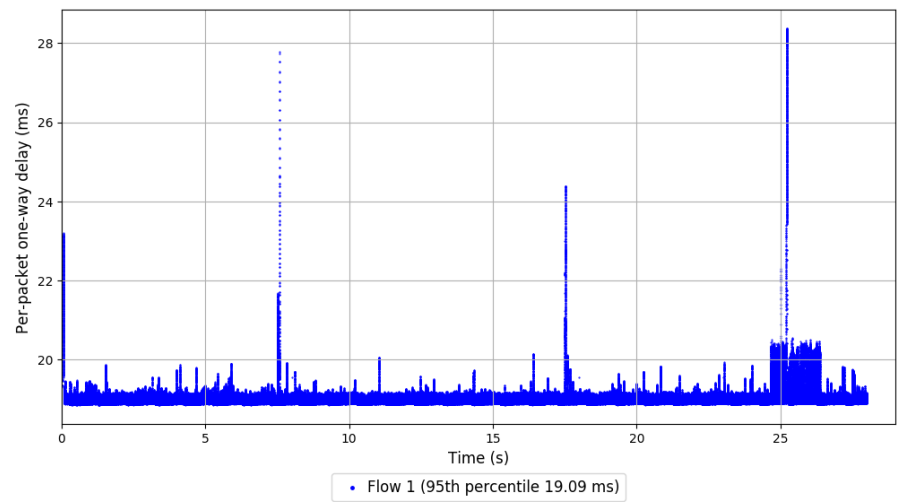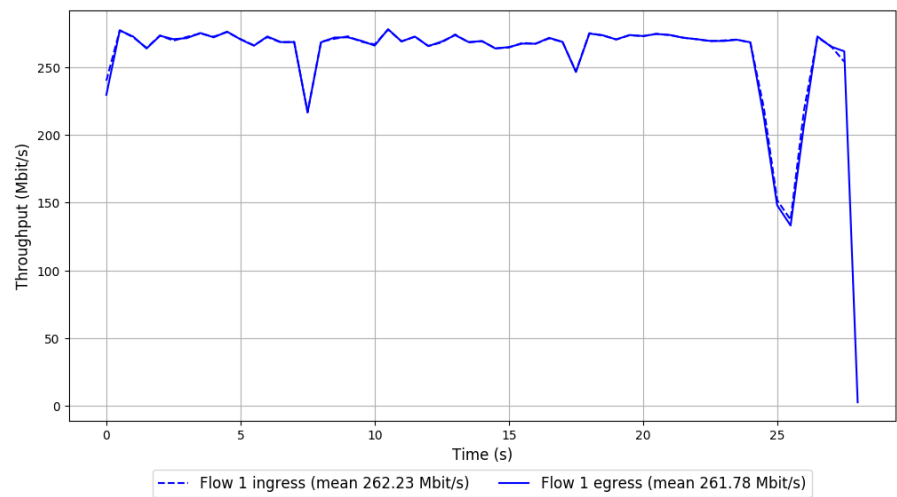• Flow 1 (95th percentile 22.01 ms)

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

Start at: 2017-12-11 14:15:23
End at: 2017-12-11 14:15:53
Local clock offset: -7.103 ms
Remote clock offset: -0.644 ms


# Below is generated by plot.py at 2017-12-11 19:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.78 Mbit/s
95th percentile per-packet one-way delay: 19.087 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 261.78 Mbit/s
95th percentile per-packet one-way delay: 19.087 ms
Loss rate: 0.17%
```

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

Flow 1 ingress (mean 262.23 Mbit/s)   Flow 1 egress (mean 261.78 Mbit/s)
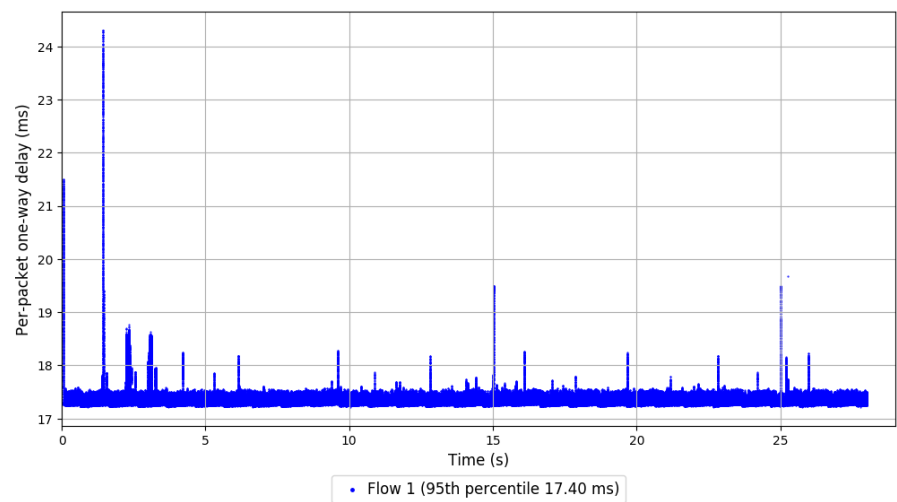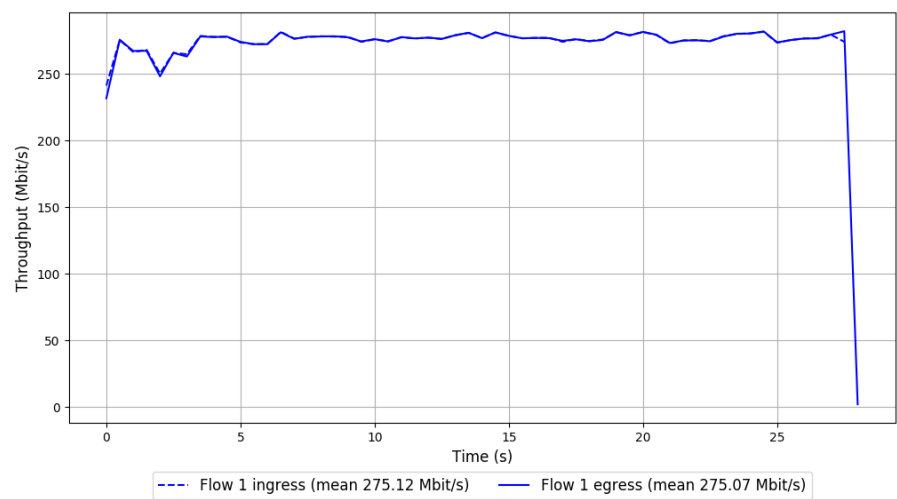

Flow 1 (95th percentile 19.09 ms)

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

Start at: 2017-12-11 14:33:55
End at: 2017-12-11 14:34:25
Local clock offset: -7.055 ms
Remote clock offset: -0.948 ms

# Below is generated by plot.py at 2017-12-11 19:02:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 275.07 Mbit/s
95th percentile per-packet one-way delay: 17.402 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 275.07 Mbit/s
95th percentile per-packet one-way delay: 17.402 ms
Loss rate: 0.03%
```
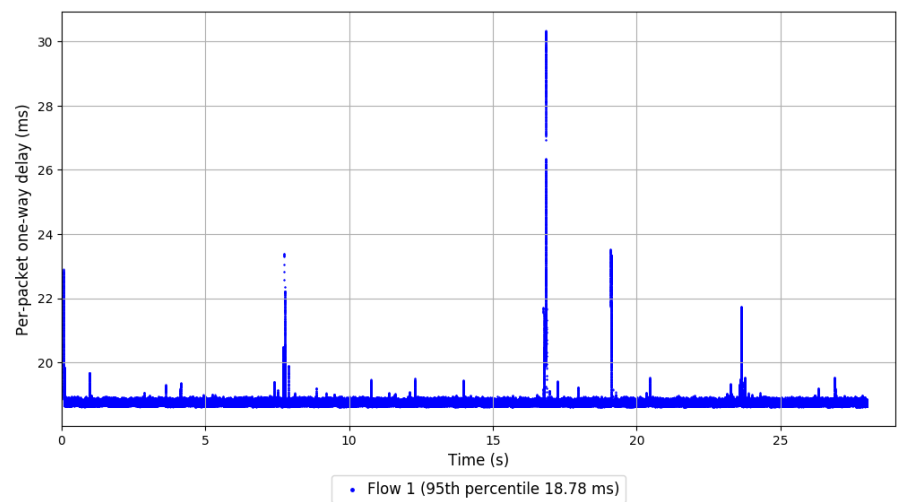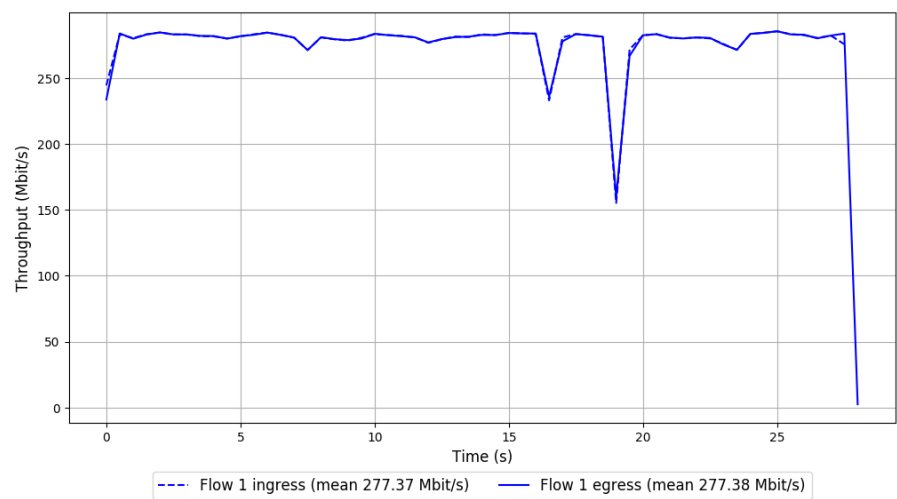
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2017-12-11 14:52:31
End at: 2017-12-11 14:53:01
Local clock offset: -6.888 ms
Remote clock offset: -0.758 ms


# Below is generated by plot.py at 2017-12-11 19:02:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 277.38 Mbit/s
95th percentile per-packet one-way delay: 18.782 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 277.38 Mbit/s
95th percentile per-packet one-way delay: 18.782 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 277.37 Mbit/s) --- Flow 1 egress (mean 277.38 Mbit/s)
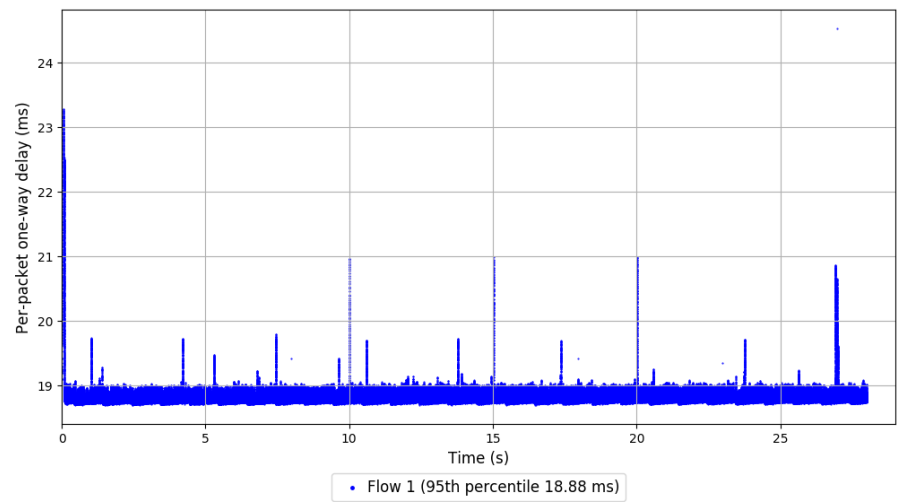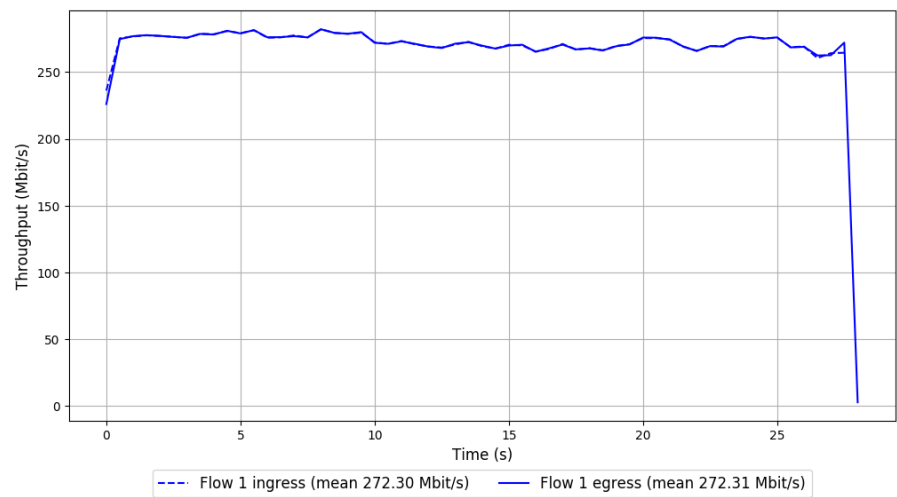

Flow 1 (95th percentile 18.78 ms)

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

Start at: 2017-12-11 15:11:06
End at: 2017-12-11 15:11:36
Local clock offset: -6.825 ms
Remote clock offset: -0.887 ms


# Below is generated by plot.py at 2017-12-11 19:02:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.31 Mbit/s
95th percentile per-packet one-way delay: 18.878 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 272.31 Mbit/s
95th percentile per-packet one-way delay: 18.878 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 272.30 Mbit/s)   Flow 1 egress (mean 272.31 Mbit/s)
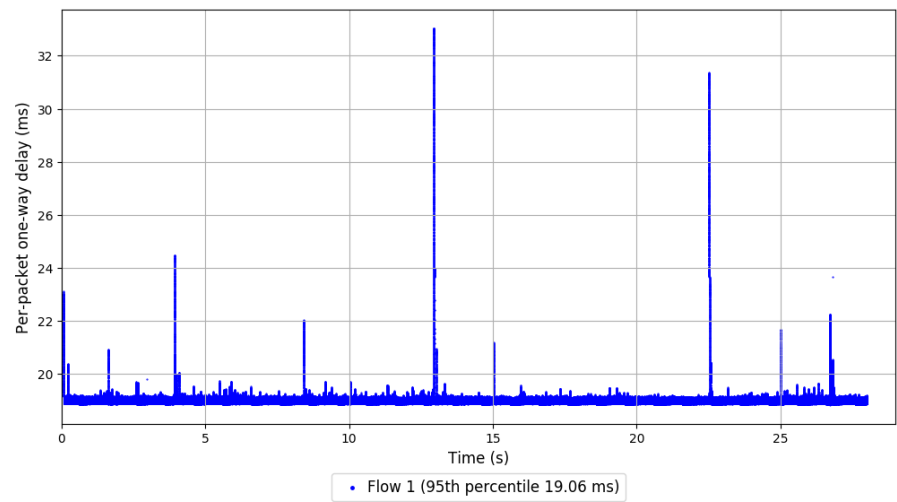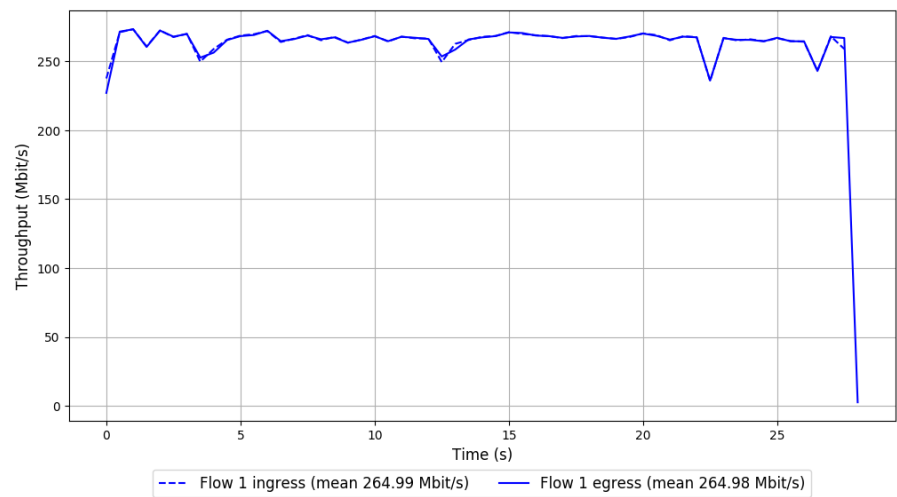

Flow 1 (95th percentile 18.88 ms)

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

Start at: 2017-12-11 15:29:34
End at: 2017-12-11 15:30:04
Local clock offset: -6.756 ms
Remote clock offset: -1.182 ms


# Below is generated by plot.py at 2017-12-11 19:02:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 264.98 Mbit/s
95th percentile per-packet one-way delay: 19.064 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 264.98 Mbit/s
95th percentile per-packet one-way delay: 19.064 ms
Loss rate: 0.00%
```
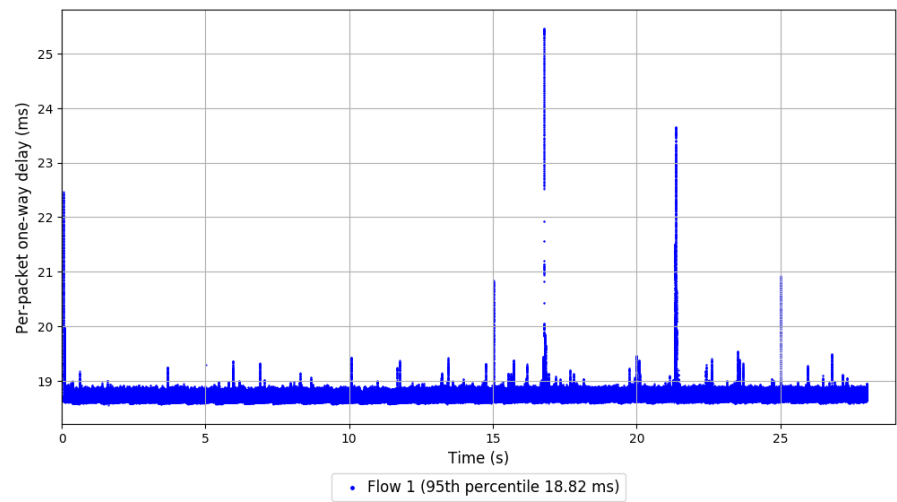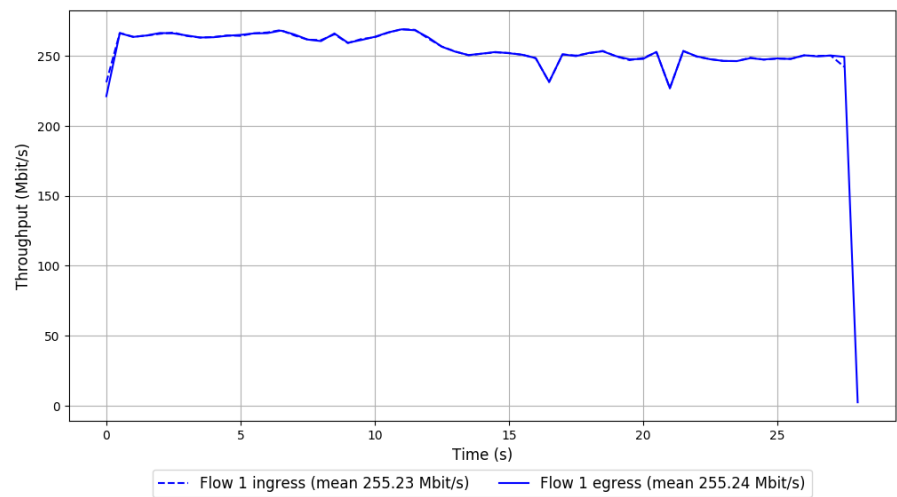
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 264.99 Mbit/s)   Flow 1 egress (mean 264.98 Mbit/s)

Flow 1 (95th percentile 19.06 ms)

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

Start at: 2017-12-11 15:48:16
End at: 2017-12-11 15:48:46
Local clock offset: -6.66 ms
Remote clock offset: -0.807 ms


# Below is generated by plot.py at 2017-12-11 19:02:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.24 Mbit/s
95th percentile per-packet one-way delay: 18.824 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 255.24 Mbit/s
95th percentile per-packet one-way delay: 18.824 ms
Loss rate: 0.00%
```

Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 255.23 Mbit/s)   Flow 1 egress (mean 255.24 Mbit/s)
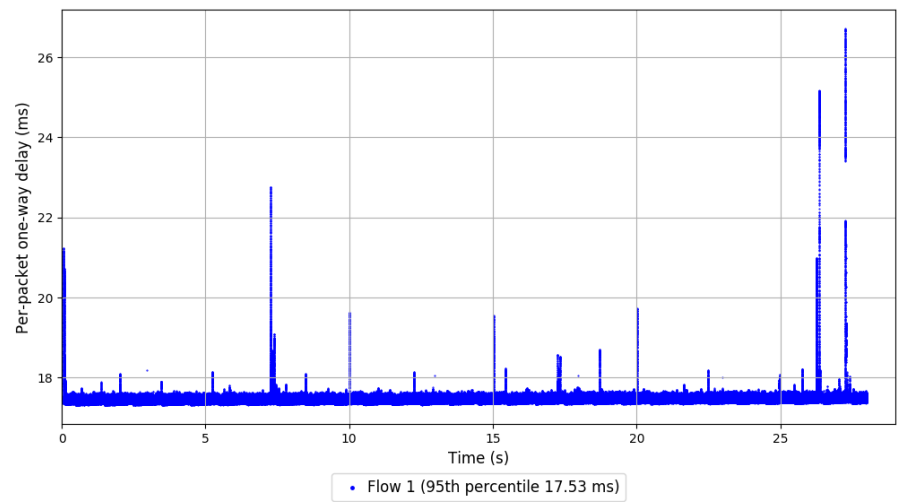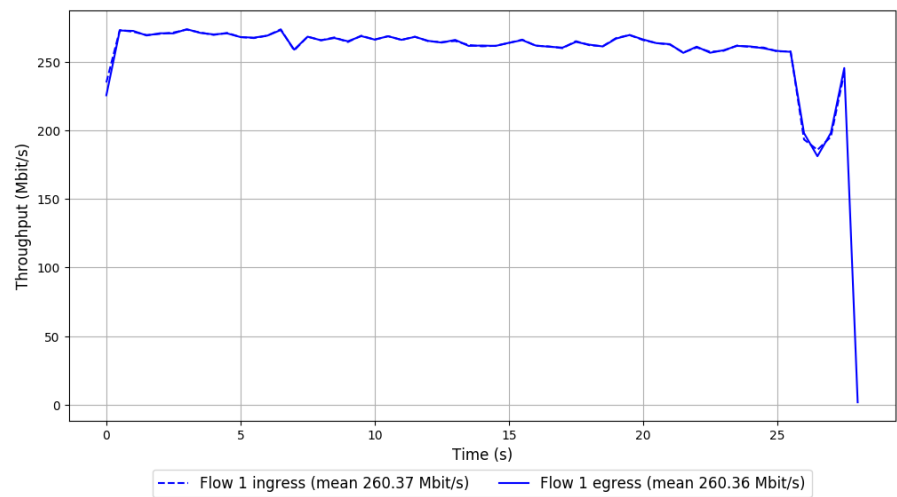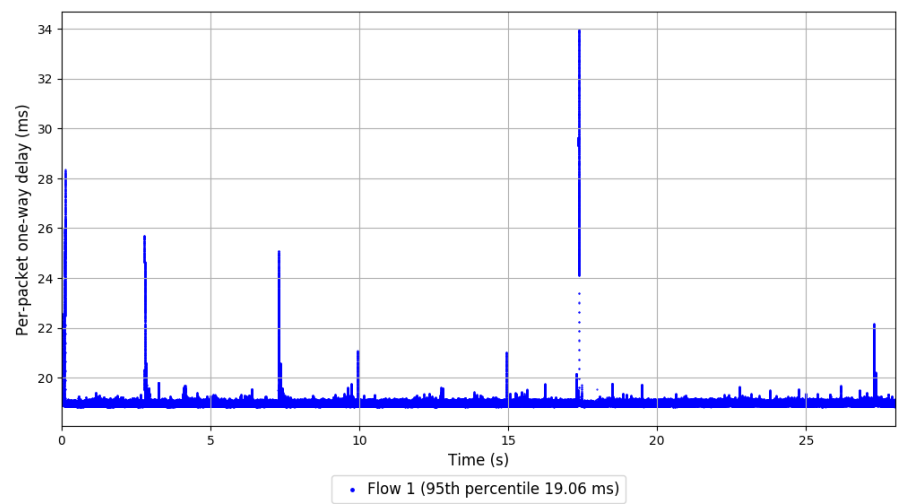

Flow 1 (95th percentile 18.82 ms)

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

Start at: 2017-12-11 16:06:45
End at: 2017-12-11 16:07:15
Local clock offset: -6.036 ms
Remote clock offset: -0.751 ms


# Below is generated by plot.py at 2017-12-11 19:03:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.36 Mbit/s
95th percentile per-packet one-way delay: 17.532 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 260.36 Mbit/s
95th percentile per-packet one-way delay: 17.532 ms
Loss rate: 0.01%
```

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

Flow 1 ingress (mean 260.37 Mbit/s)   Flow 1 egress (mean 260.36 Mbit/s)
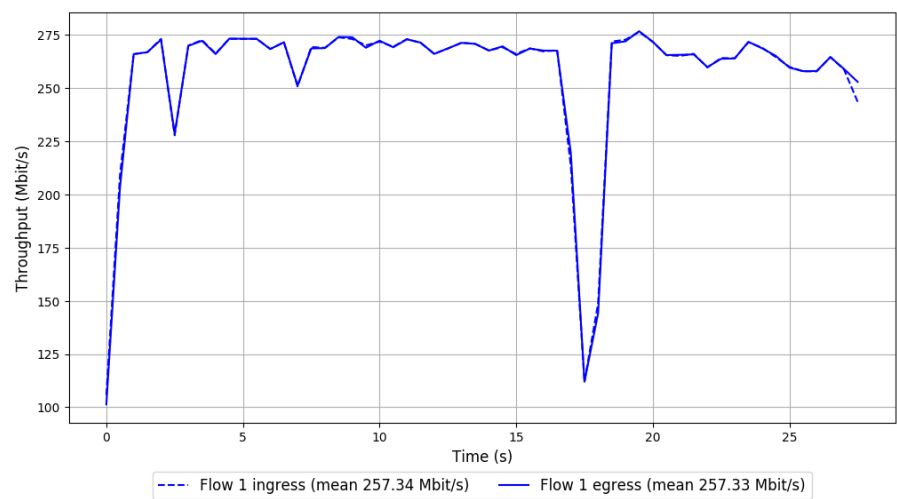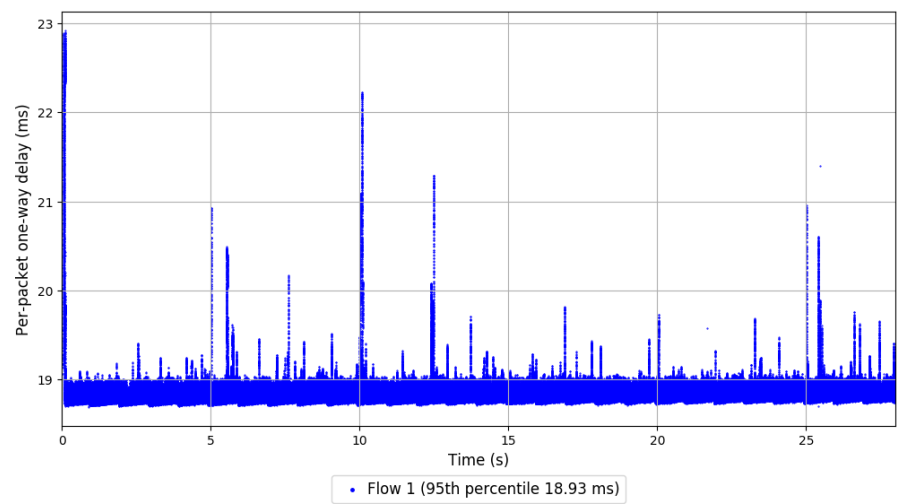

Flow 1 (95th percentile 17.53 ms)

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

Start at: 2017-12-11 16:25:15
End at: 2017-12-11 16:25:45
Local clock offset: -4.627 ms
Remote clock offset: -0.656 ms


# Below is generated by plot.py at 2017-12-11 19:06:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.33 Mbit/s
95th percentile per-packet one-way delay: 19.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 257.33 Mbit/s
95th percentile per-packet one-way delay: 19.063 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 257.34 Mbit/s)   Flow 1 egress (mean 257.33 Mbit/s)
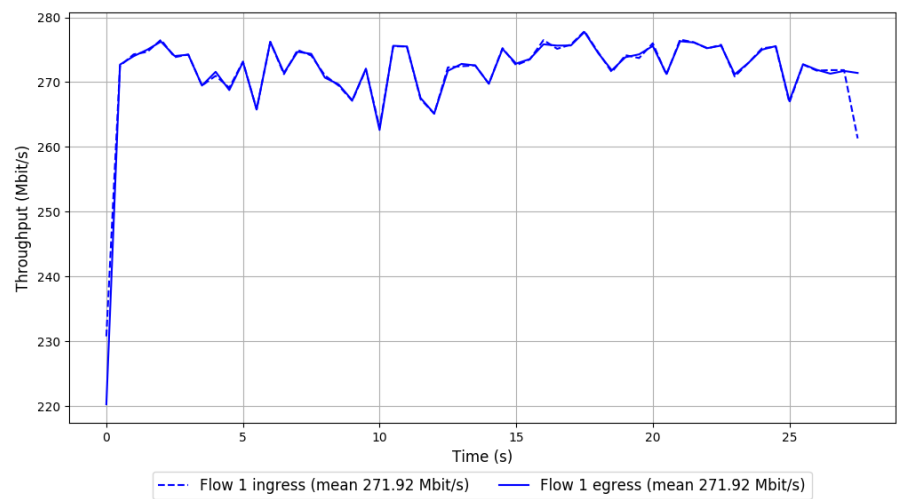

Flow 1 (95th percentile 19.06 ms)

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

Start at: 2017-12-11 16:44:01
End at: 2017-12-11 16:44:31
Local clock offset: -4.018 ms
Remote clock offset: -0.325 ms


# Below is generated by plot.py at 2017-12-11 19:08:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 271.92 Mbit/s
95th percentile per-packet one-way delay: 18.927 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 271.92 Mbit/s
95th percentile per-packet one-way delay: 18.927 ms
Loss rate: 0.00%
```
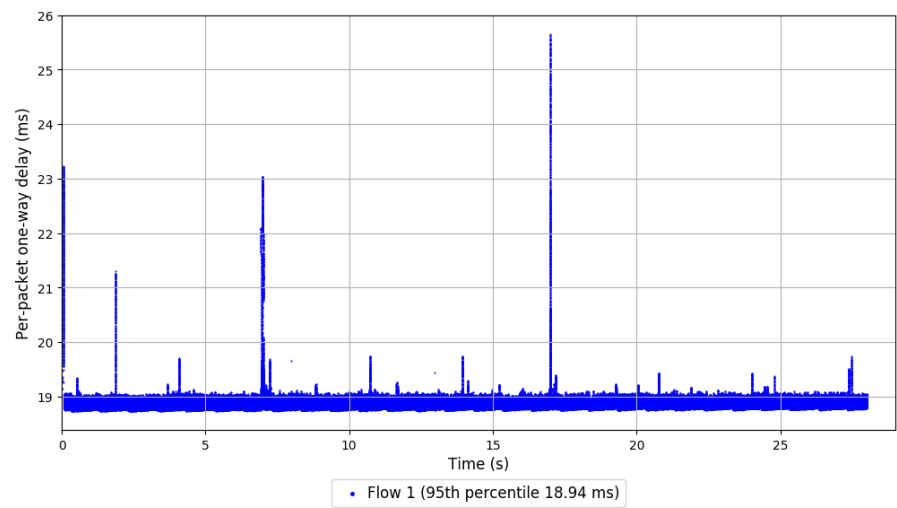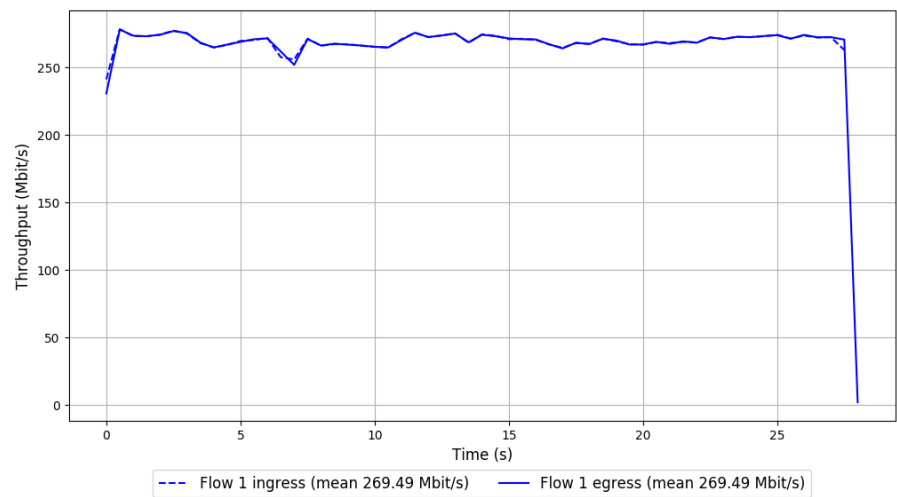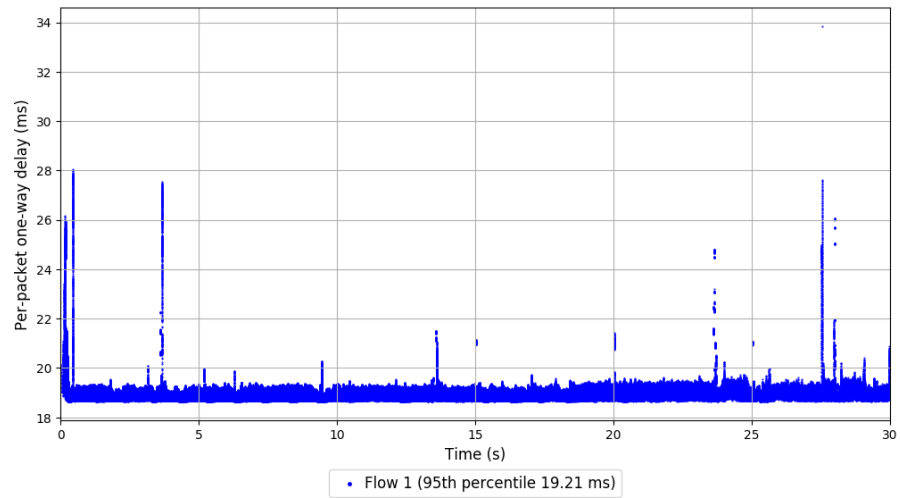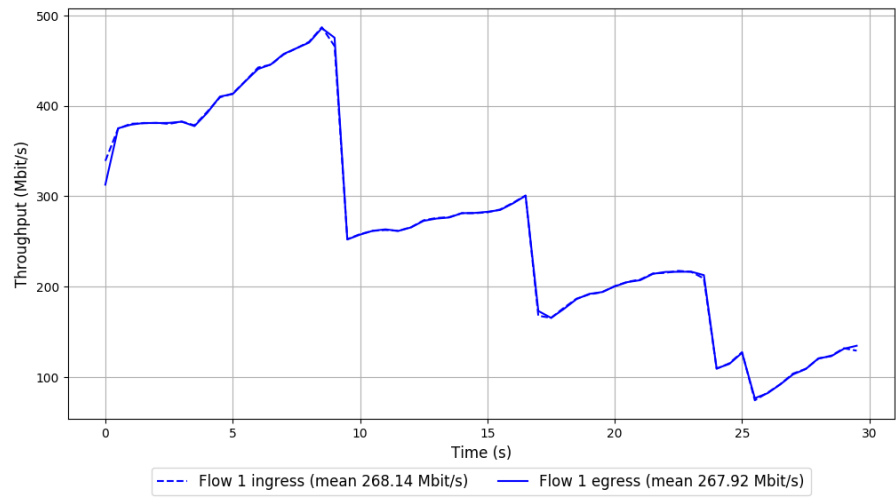
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 271.92 Mbit/s)   Flow 1 egress (mean 271.92 Mbit/s)

Flow 1 (95th percentile 18.93 ms)

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

Start at: 2017-12-11 17:02:33
End at: 2017-12-11 17:03:03
Local clock offset: -2.701 ms
Remote clock offset: -0.647 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.49 Mbit/s
95th percentile per-packet one-way delay: 18.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 269.49 Mbit/s
95th percentile per-packet one-way delay: 18.936 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 269.49 Mbit/s)   Flow 1 egress (mean 269.49 Mbit/s)
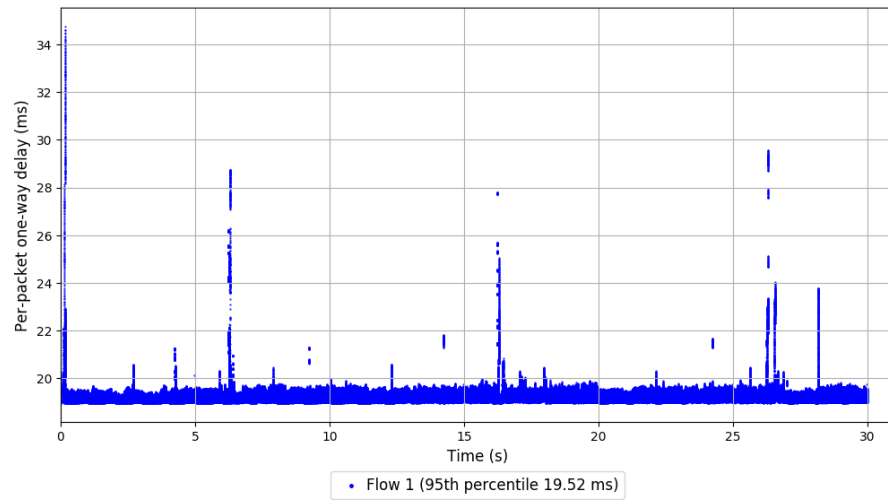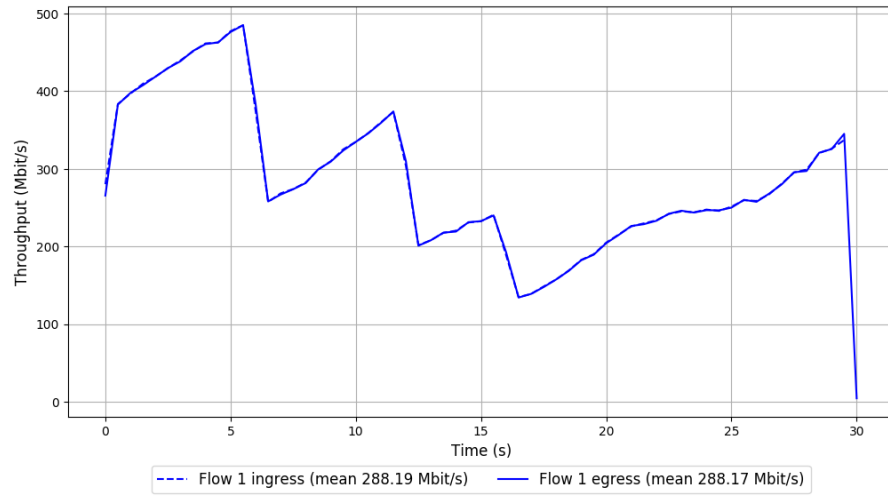

Flow 1 (95th percentile 18.94 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2017-12-11 14:00:54
End at: 2017-12-11 14:01:24
Local clock offset: -7.453 ms
Remote clock offset: -0.737 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 267.92 Mbit/s
95th percentile per-packet one-way delay: 19.211 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 267.92 Mbit/s
95th percentile per-packet one-way delay: 19.211 ms
Loss rate: 0.08%
```
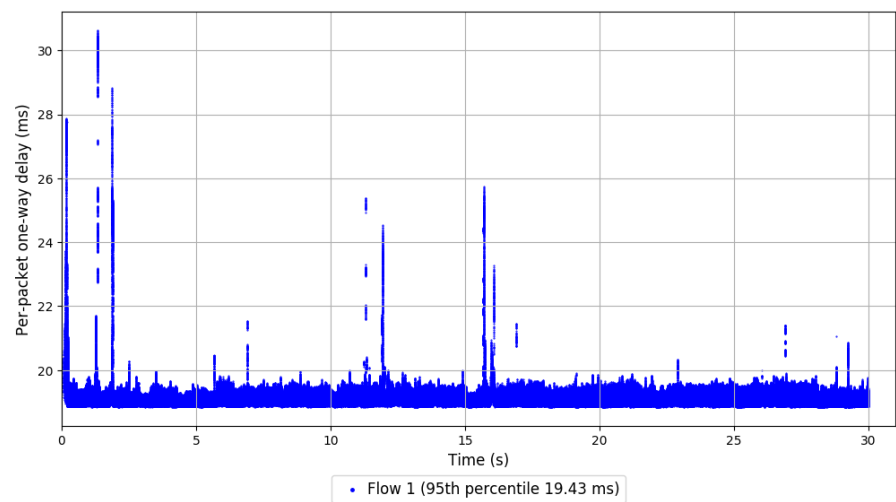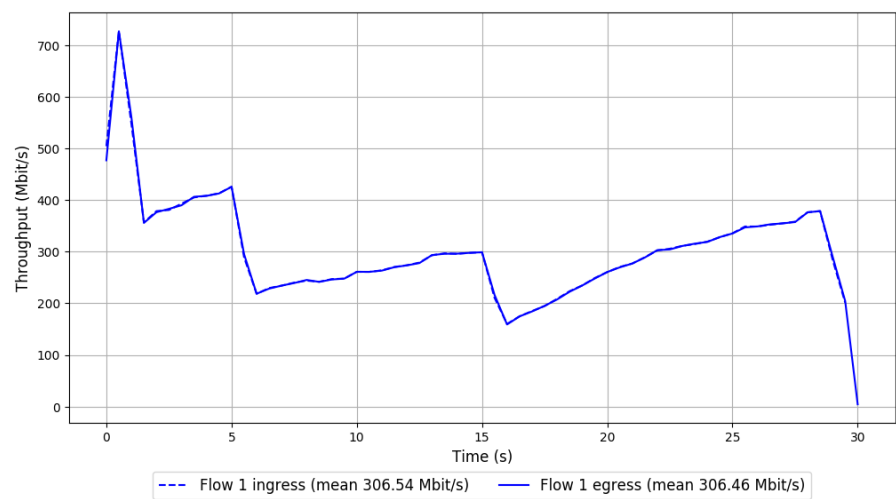
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-12-11 14:19:22
End at: 2017-12-11 14:19:52
Local clock offset: -7.123 ms
Remote clock offset: -0.695 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 19.517 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 19.517 ms
Loss rate: 0.01%
```
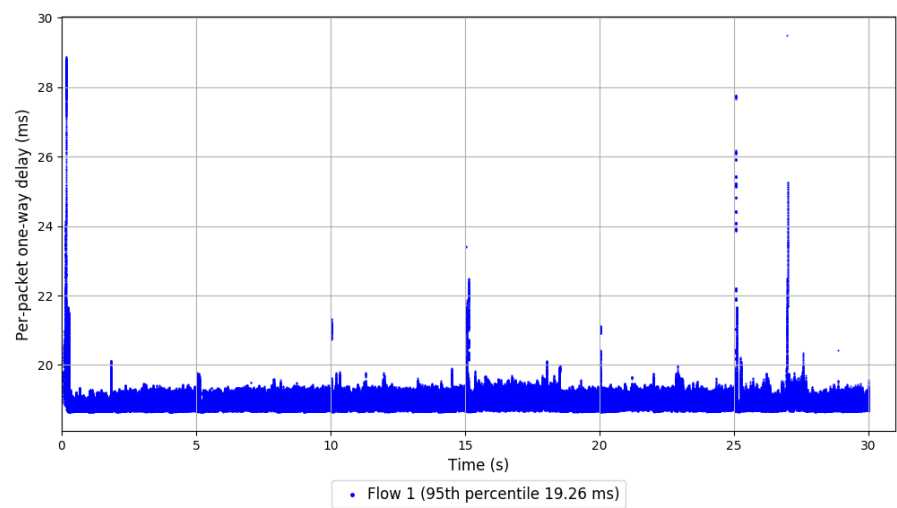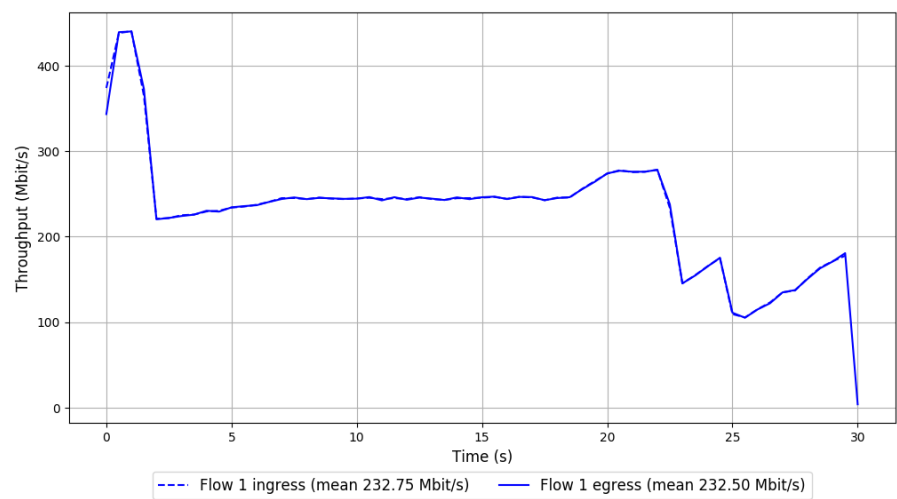
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2017-12-11 14:37:55
End at: 2017-12-11 14:38:25
Local clock offset: -6.935 ms
Remote clock offset: -0.848 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 306.46 Mbit/s
95th percentile per-packet one-way delay: 19.435 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 306.46 Mbit/s
95th percentile per-packet one-way delay: 19.435 ms
Loss rate: 0.03%
```
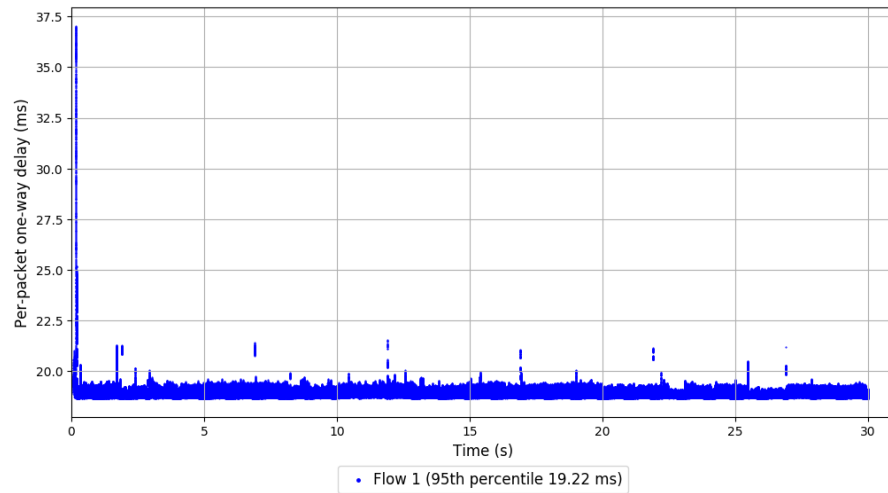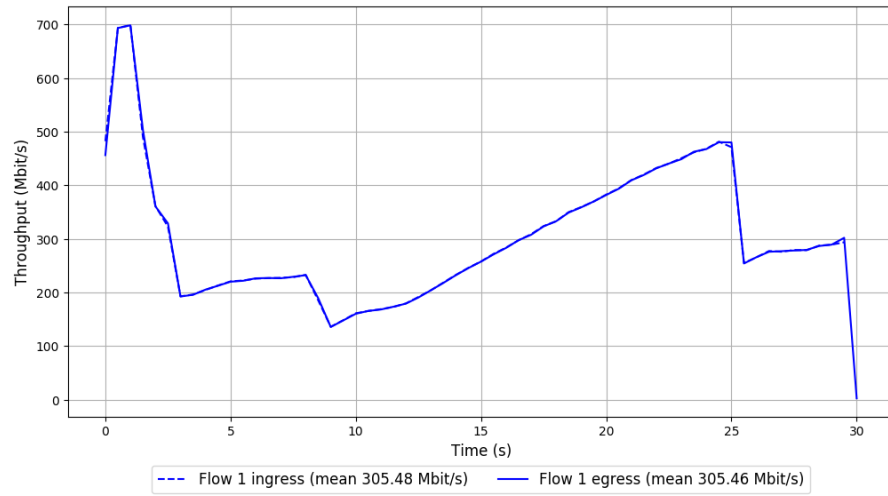
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2017-12-11 14:56:31
End at: 2017-12-11 14:57:01
Local clock offset: -6.874 ms
Remote clock offset: -0.731 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.50 Mbit/s
95th percentile per-packet one-way delay: 19.257 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 232.50 Mbit/s
95th percentile per-packet one-way delay: 19.257 ms
Loss rate: 0.11%
```
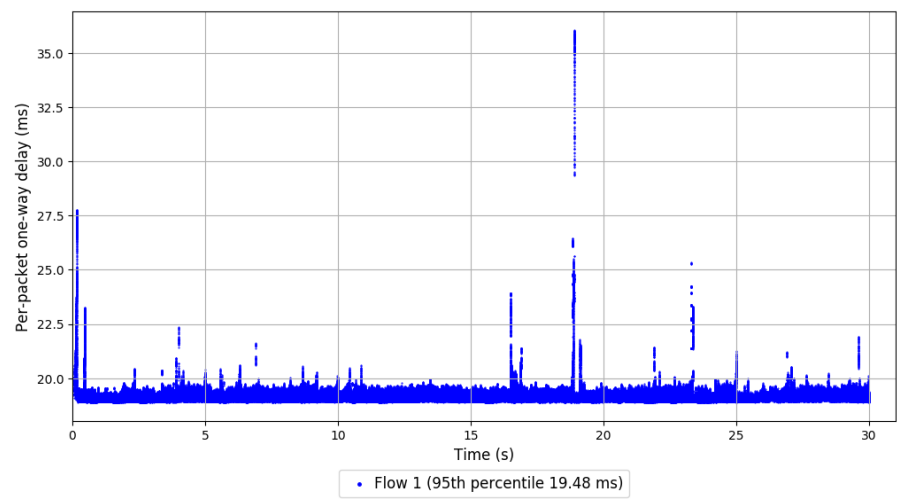
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2017-12-11 15:15:06
End at: 2017-12-11 15:15:36
Local clock offset: -6.774 ms
Remote clock offset: -1.027 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.46 Mbit/s
95th percentile per-packet one-way delay: 19.219 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 305.46 Mbit/s
95th percentile per-packet one-way delay: 19.219 ms
Loss rate: 0.01%
```
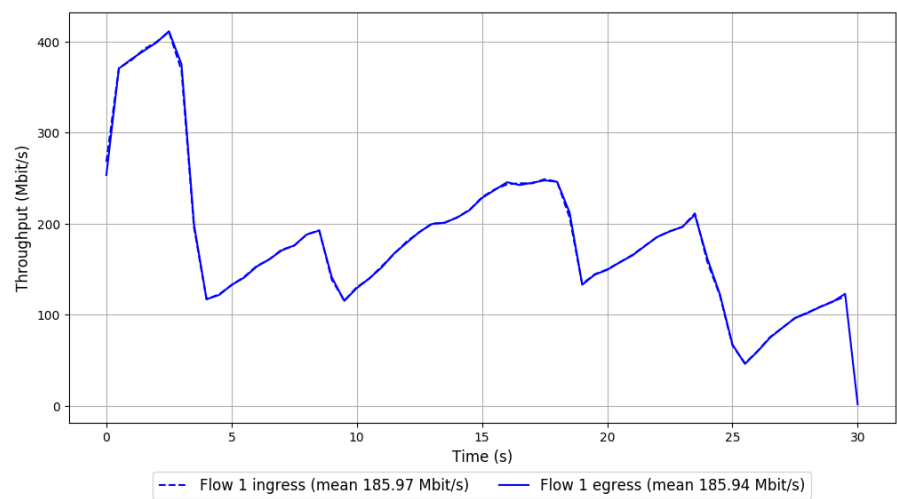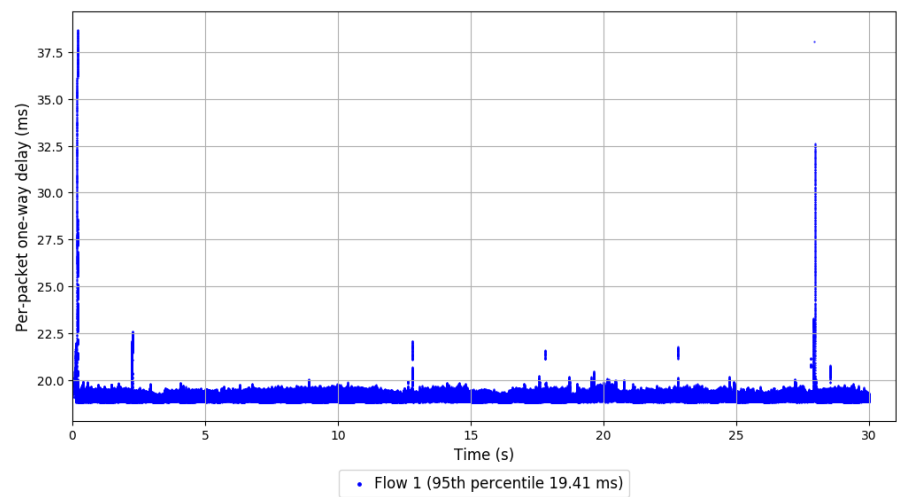
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2017-12-11 15:33:33
End at: 2017-12-11 15:34:03
Local clock offset: -6.675 ms
Remote clock offset: -1.009 ms


# Below is generated by plot.py at 2017-12-11 19:09:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.94 Mbit/s
95th percentile per-packet one-way delay: 19.483 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 185.94 Mbit/s
95th percentile per-packet one-way delay: 19.483 ms
Loss rate: 0.02%
```
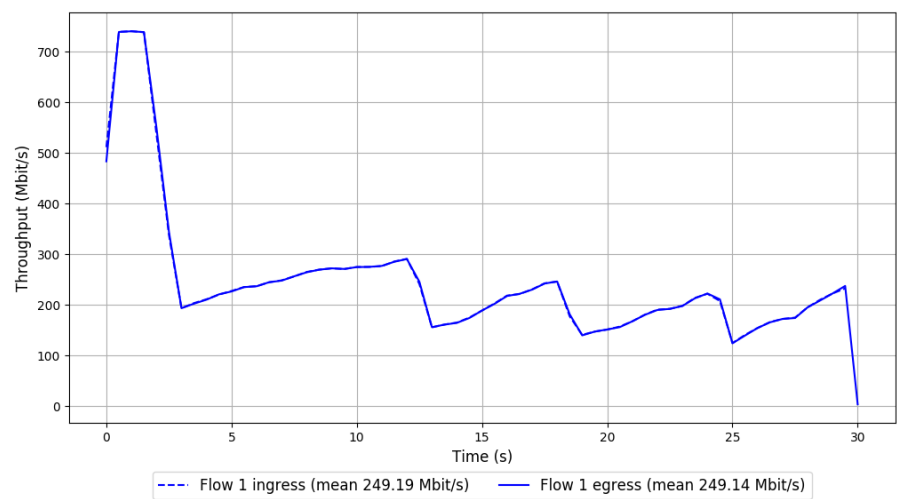
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2017-12-11 15:52:14
End at: 2017-12-11 15:52:44
Local clock offset: -6.661 ms
Remote clock offset: -0.61 ms


# Below is generated by plot.py at 2017-12-11 19:09:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.14 Mbit/s
95th percentile per-packet one-way delay: 19.414 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 249.14 Mbit/s
95th percentile per-packet one-way delay: 19.414 ms
Loss rate: 0.02%
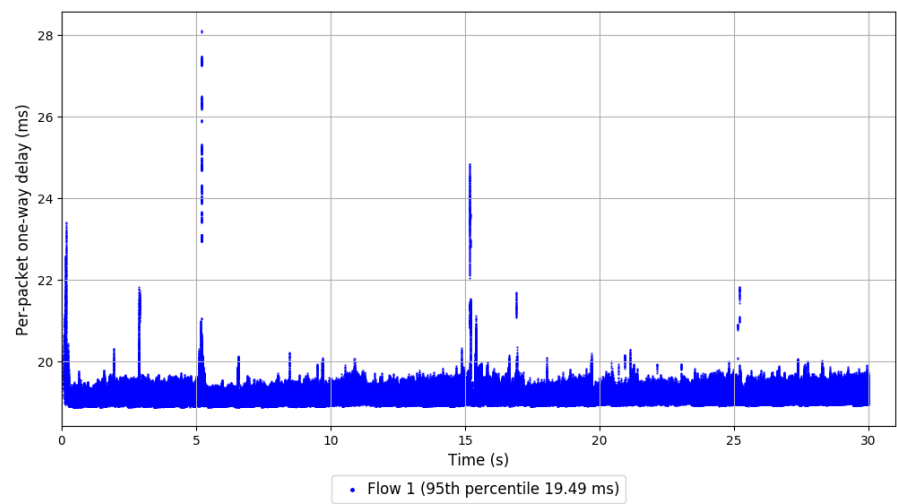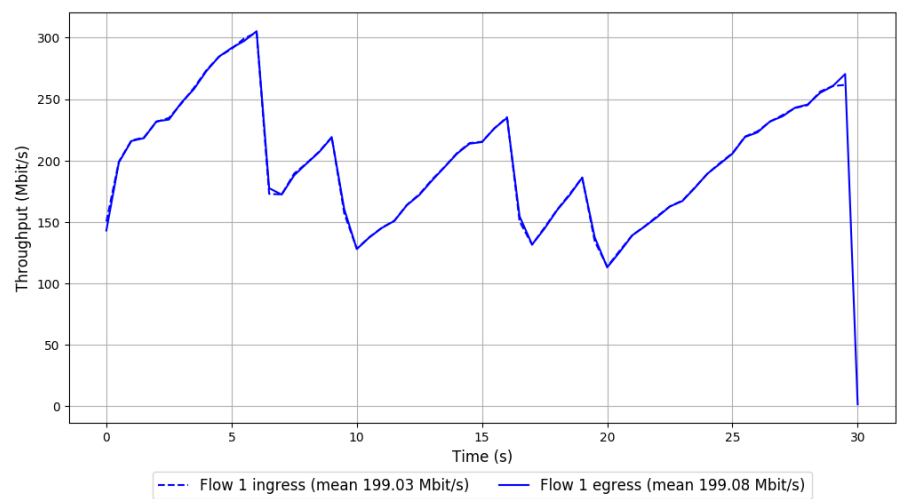```

Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2017-12-11 16:10:44
End at: 2017-12-11 16:11:14
Local clock offset: -5.575 ms
Remote clock offset: -0.777 ms


# Below is generated by plot.py at 2017-12-11 19:09:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.08 Mbit/s
95th percentile per-packet one-way delay: 19.490 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 199.08 Mbit/s
95th percentile per-packet one-way delay: 19.490 ms
Loss rate: 0.01%
```

Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 199.03 Mbit/s) — Flow 1 egress (mean 199.08 Mbit/s)
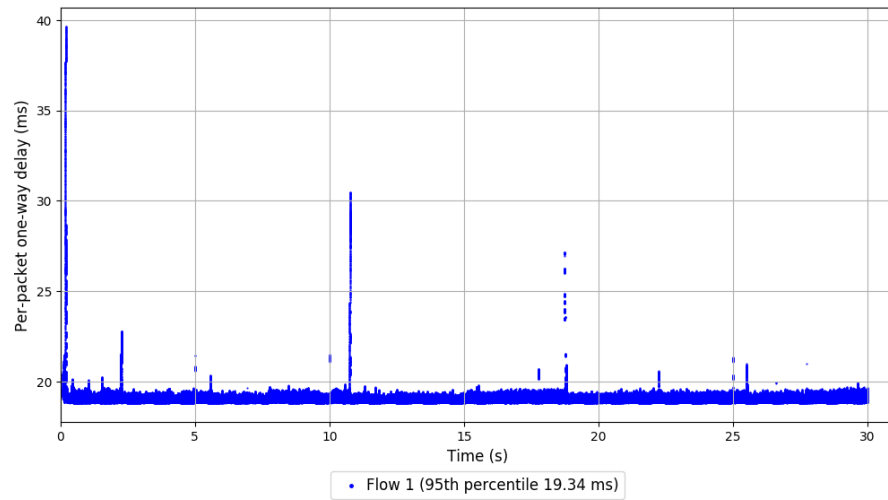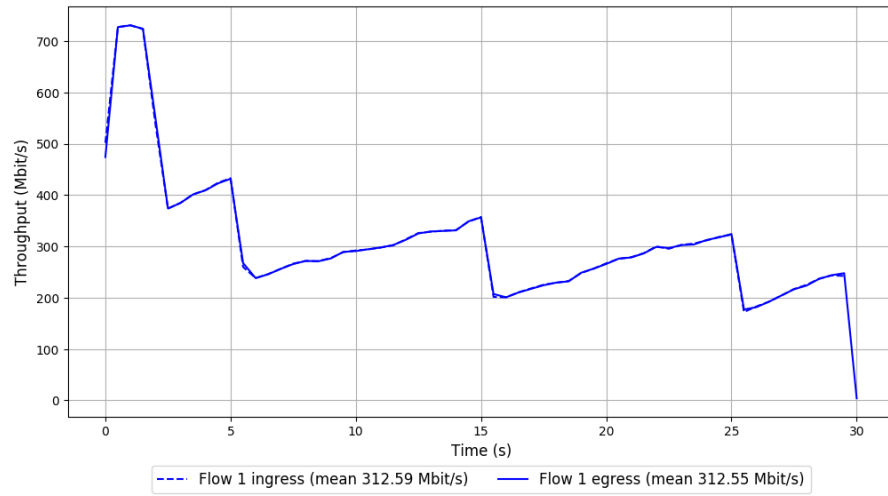

Flow 1 (95th percentile 19.49 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2017-12-11 16:29:13
End at: 2017-12-11 16:29:43
Local clock offset: -4.475 ms
Remote clock offset: -0.591 ms


# Below is generated by plot.py at 2017-12-11 19:11:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 312.55 Mbit/s
95th percentile per-packet one-way delay: 19.337 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 312.55 Mbit/s
95th percentile per-packet one-way delay: 19.337 ms
Loss rate: 0.02%
```

Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 312.59 Mbit/s)   Flow 1 egress (mean 312.55 Mbit/s)
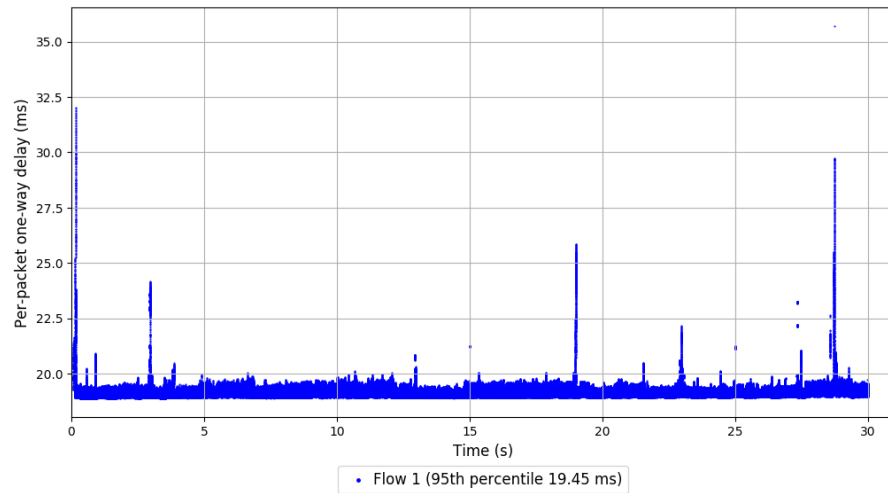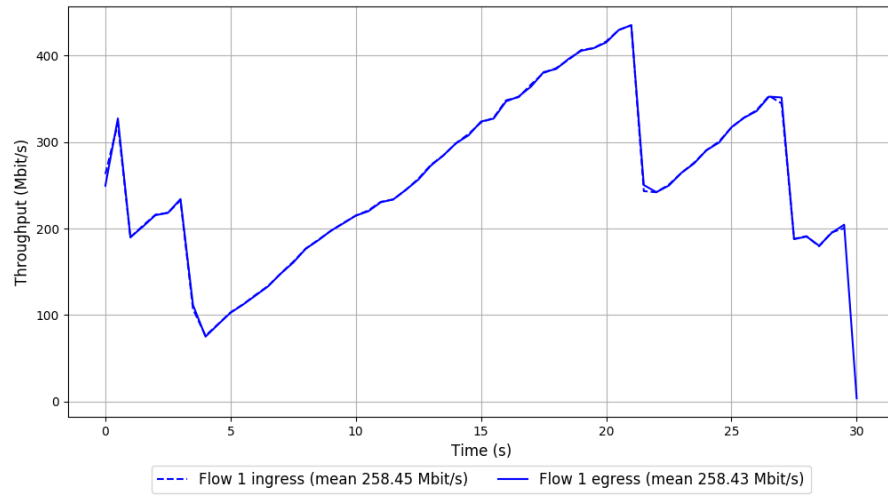

Flow 1 (95th percentile 19.34 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2017-12-11 16:48:01
End at: 2017-12-11 16:48:31
Local clock offset: -3.589 ms
Remote clock offset: -0.334 ms


# Below is generated by plot.py at 2017-12-11 19:11:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 258.43 Mbit/s
95th percentile per-packet one-way delay: 19.455 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 258.43 Mbit/s
95th percentile per-packet one-way delay: 19.455 ms
Loss rate: 0.01%
```

Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-12-11 14:02:15
End at: 2017-12-11 14:02:45
Local clock offset: -7.364 ms
Remote clock offset: -0.7 ms


# Below is generated by plot.py at 2017-12-11 19:12:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.01 Mbit/s
95th percentile per-packet one-way delay: 47.250 ms
Loss rate: 22.30%
-- Flow 1:
Average throughput: 254.01 Mbit/s
95th percentile per-packet one-way delay: 47.250 ms
Loss rate: 22.30%
```
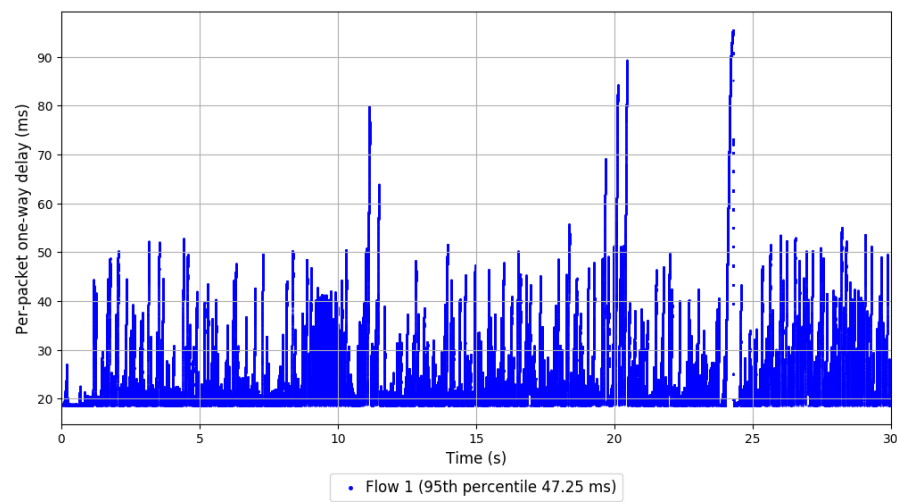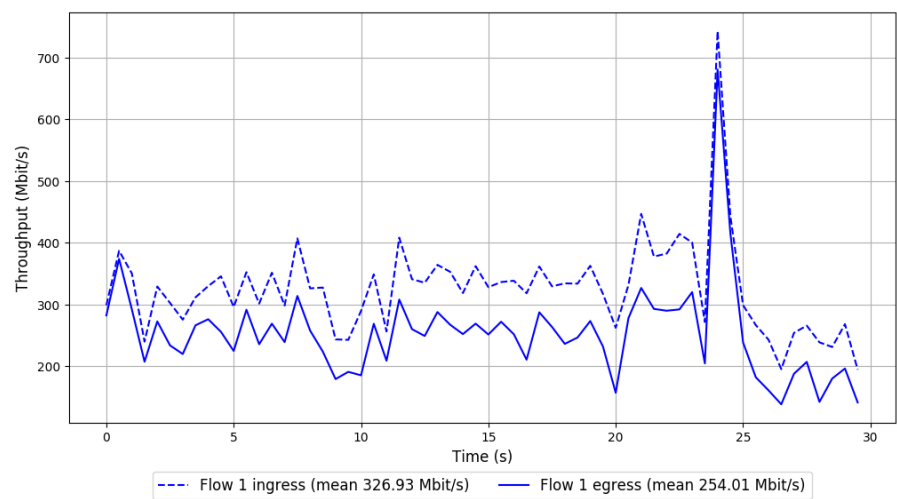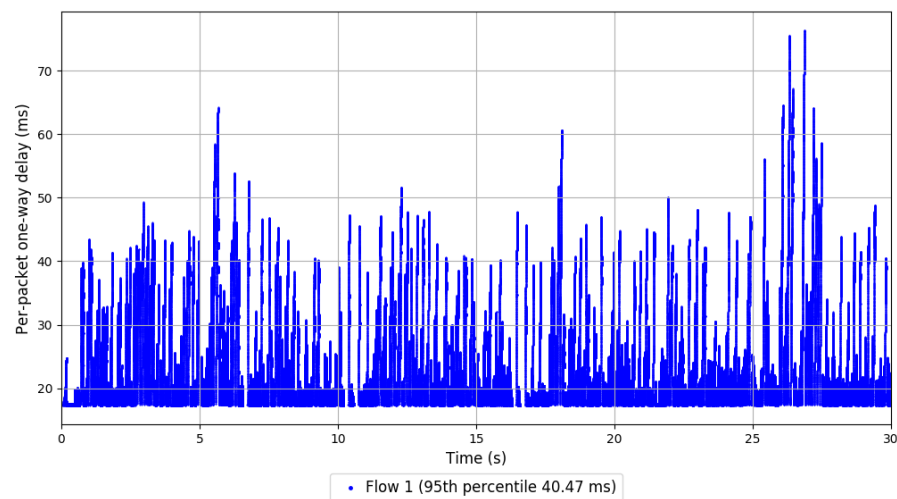
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 326.93 Mbit/s)   Flow 1 egress (mean 254.01 Mbit/s)

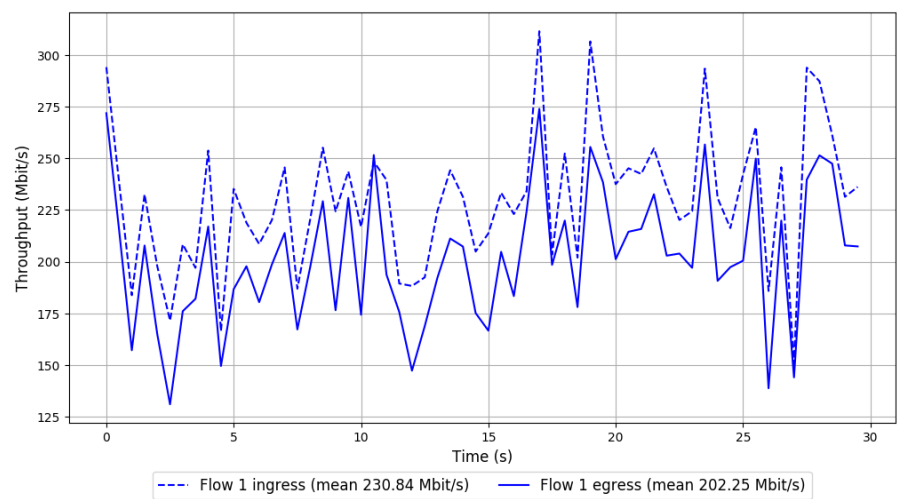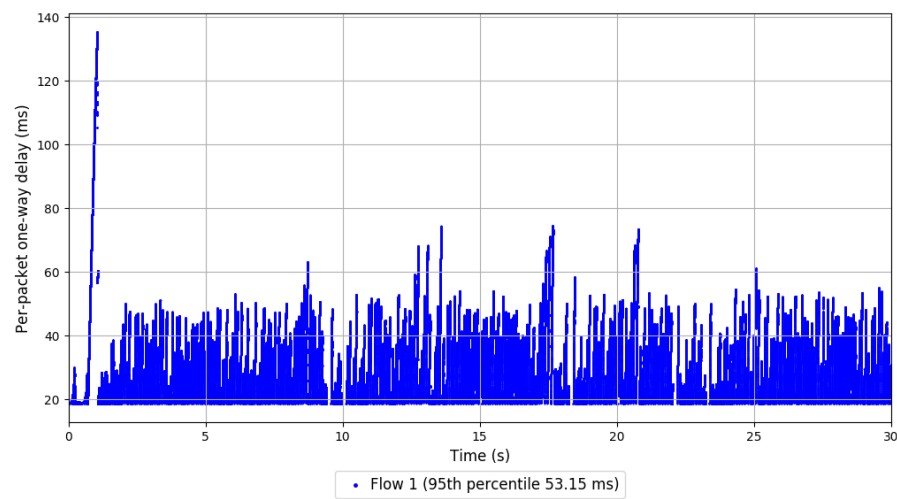• Flow 1 (95th percentile 47.25 ms)

```
Run 2: Statistics of Verus

Start at: 2017-12-11 14:20:43
End at: 2017-12-11 14:21:13
Local clock offset: -7.127 ms
Remote clock offset: -0.778 ms


# Below is generated by plot.py at 2017-12-11 19:12:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.25 Mbit/s
95th percentile per-packet one-way delay: 40.467 ms
Loss rate: 12.39%
-- Flow 1:
Average throughput: 202.25 Mbit/s
95th percentile per-packet one-way delay: 40.467 ms
Loss rate: 12.39%
```
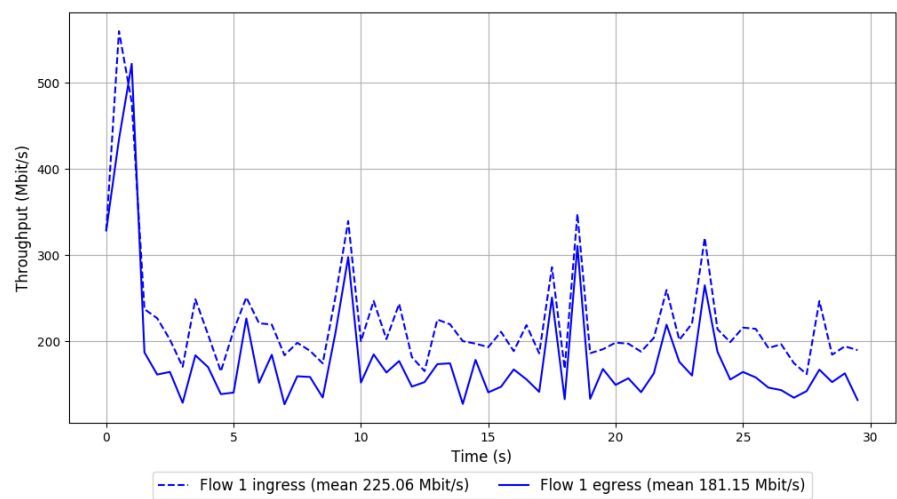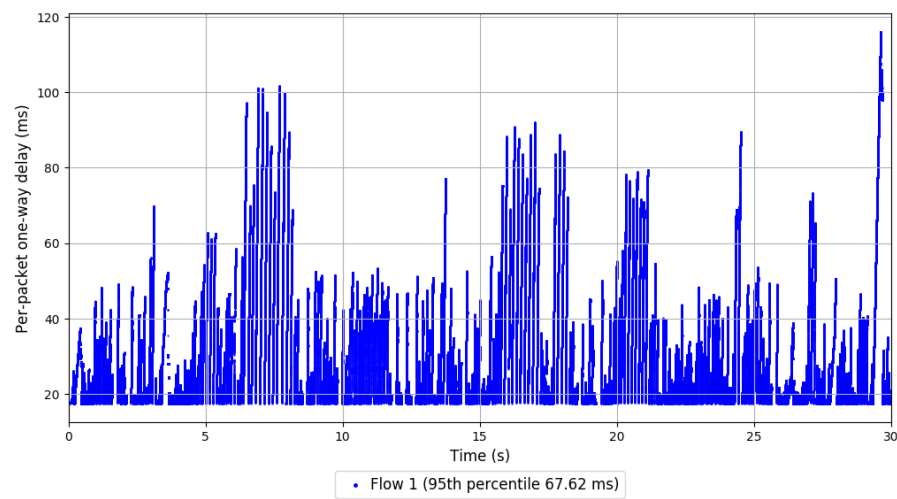
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2017-12-11 14:39:17
End at: 2017-12-11 14:39:47
Local clock offset: -7.03 ms
Remote clock offset: -0.858 ms


# Below is generated by plot.py at 2017-12-11 19:12:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 181.15 Mbit/s
95th percentile per-packet one-way delay: 53.150 ms
Loss rate: 19.52%
-- Flow 1:
Average throughput: 181.15 Mbit/s
95th percentile per-packet one-way delay: 53.150 ms
Loss rate: 19.52%
```
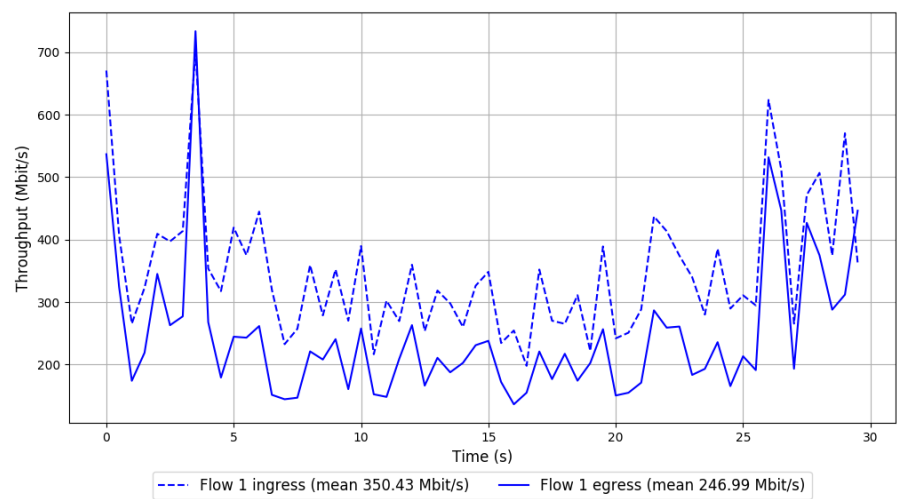
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2017-12-11 14:57:50
End at: 2017-12-11 14:58:20
Local clock offset: -6.943 ms
Remote clock offset: -0.712 ms


# Below is generated by plot.py at 2017-12-11 19:13:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.99 Mbit/s
95th percentile per-packet one-way delay: 67.620 ms
Loss rate: 29.51%
-- Flow 1:
Average throughput: 246.99 Mbit/s
95th percentile per-packet one-way delay: 67.620 ms
Loss rate: 29.51%
```
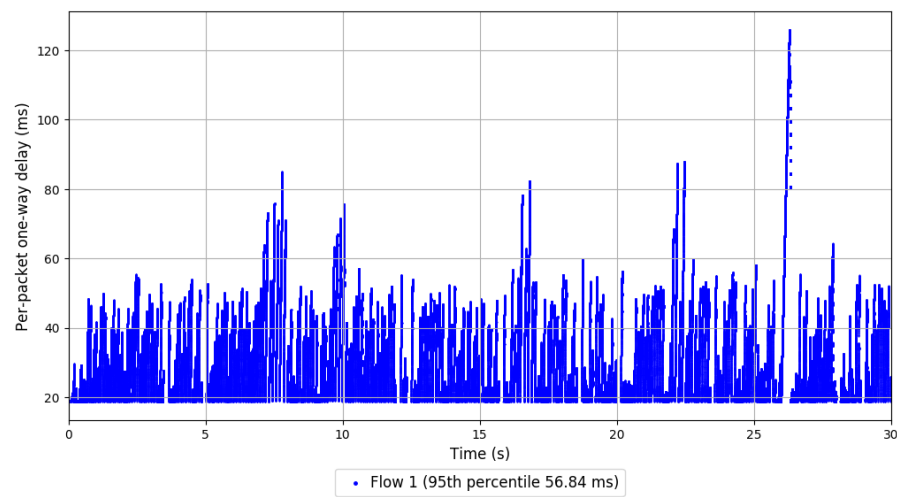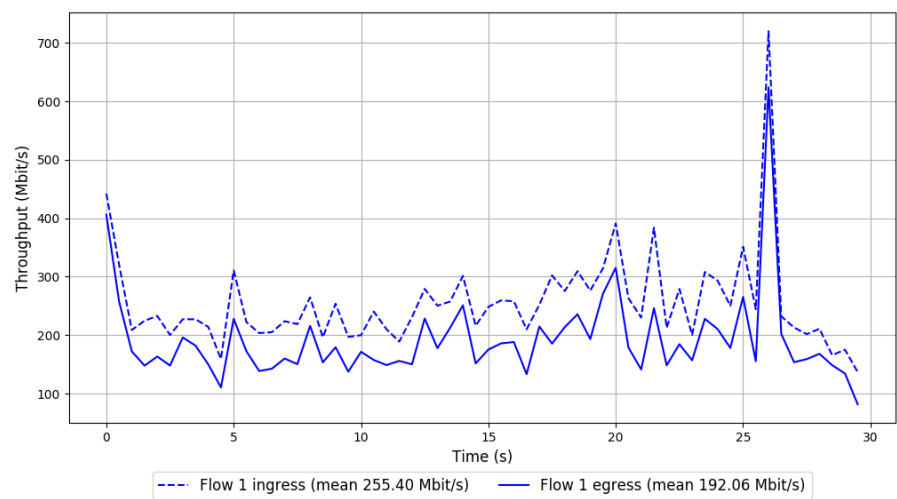
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2017-12-11 15:16:28
End at: 2017-12-11 15:16:58
Local clock offset: -6.806 ms
Remote clock offset: -1.038 ms


# Below is generated by plot.py at 2017-12-11 19:13:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.06 Mbit/s
95th percentile per-packet one-way delay: 56.845 ms
Loss rate: 24.80%
-- Flow 1:
Average throughput: 192.06 Mbit/s
95th percentile per-packet one-way delay: 56.845 ms
Loss rate: 24.80%
```
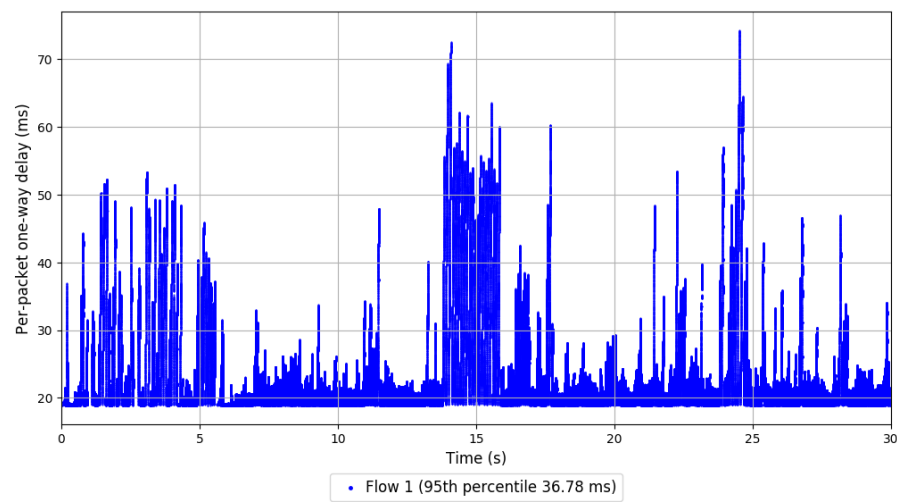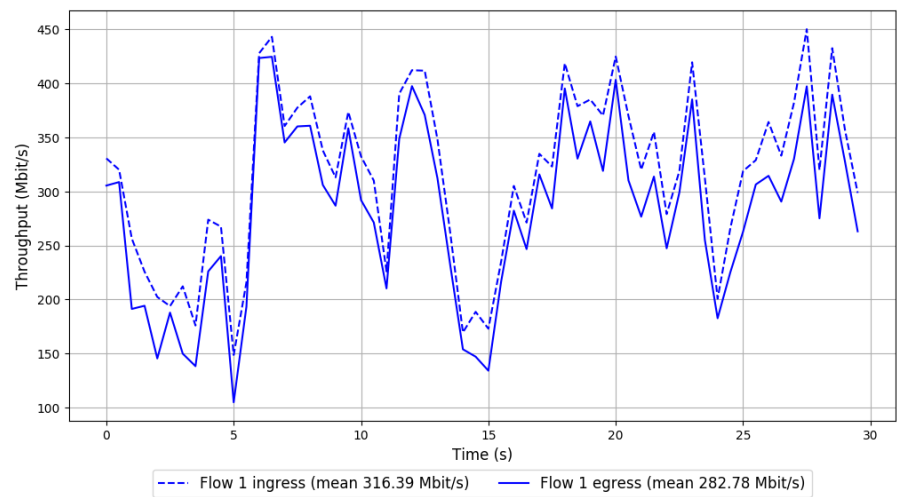
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2017-12-11 15:34:51
End at: 2017-12-11 15:35:21
Local clock offset: -6.658 ms
Remote clock offset: -1.002 ms


# Below is generated by plot.py at 2017-12-11 19:13:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.78 Mbit/s
95th percentile per-packet one-way delay: 36.780 ms
Loss rate: 10.62%
-- Flow 1:
Average throughput: 282.78 Mbit/s
95th percentile per-packet one-way delay: 36.780 ms
Loss rate: 10.62%
```

Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 316.39 Mbit/s)   Flow 1 egress (mean 282.78 Mbit/s)

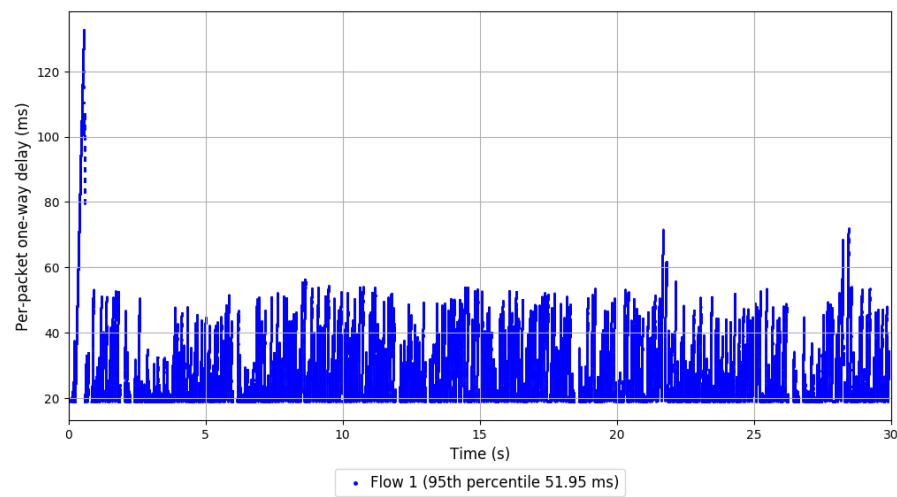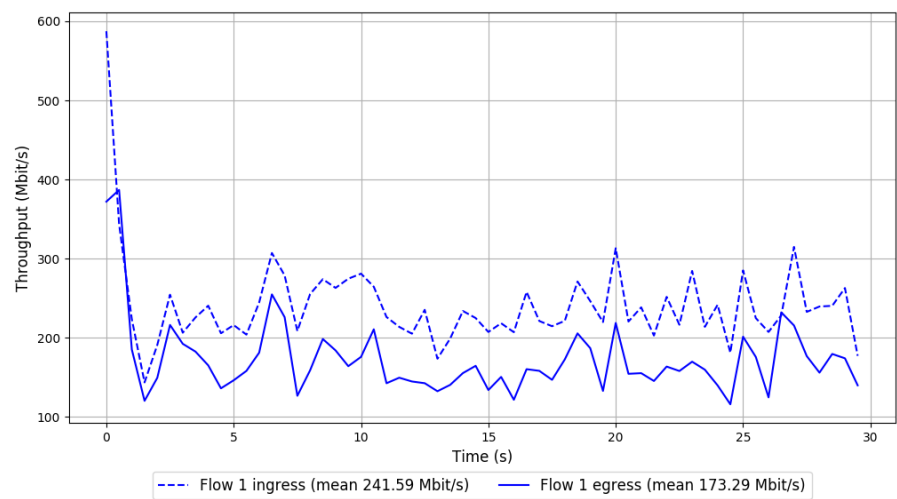• Flow 1 (95th percentile 36.78 ms)

```
Run 7: Statistics of Verus

Start at: 2017-12-11 15:53:34
End at: 2017-12-11 15:54:04
Local clock offset: -6.486 ms
Remote clock offset: -0.673 ms


# Below is generated by plot.py at 2017-12-11 19:13:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 173.29 Mbit/s
95th percentile per-packet one-way delay: 51.948 ms
Loss rate: 28.25%
-- Flow 1:
Average throughput: 173.29 Mbit/s
95th percentile per-packet one-way delay: 51.948 ms
Loss rate: 28.25%
```
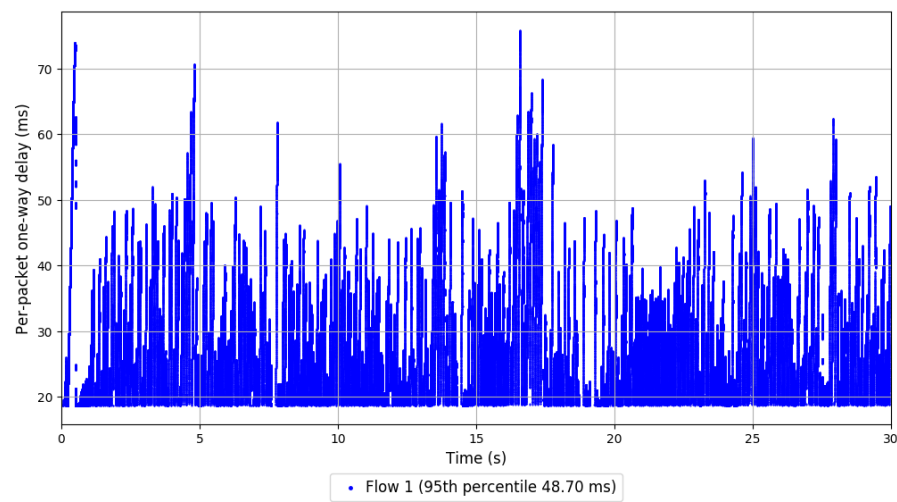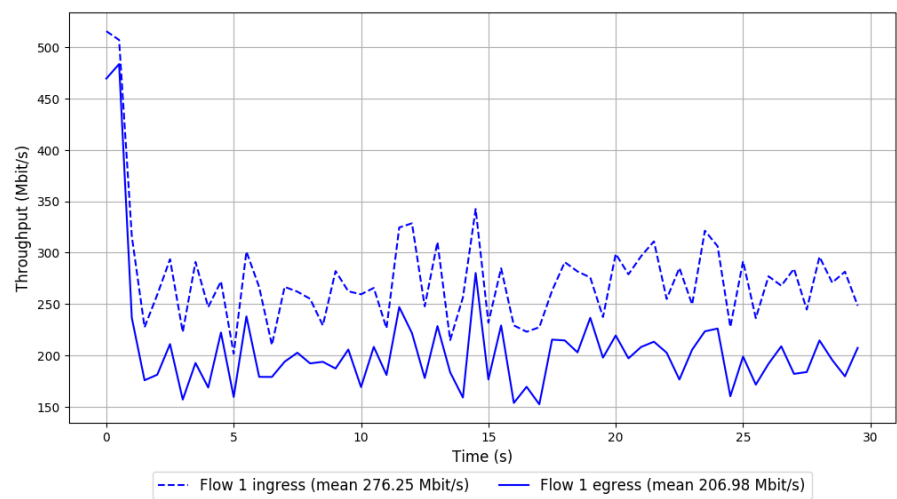
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2017-12-11 16:12:01
End at: 2017-12-11 16:12:31
Local clock offset: -5.434 ms
Remote clock offset: -0.682 ms


# Below is generated by plot.py at 2017-12-11 19:14:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.98 Mbit/s
95th percentile per-packet one-way delay: 48.704 ms
Loss rate: 25.01%
-- Flow 1:
Average throughput: 206.98 Mbit/s
95th percentile per-packet one-way delay: 48.704 ms
Loss rate: 25.01%
```

Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 276.25 Mbit/s)   Flow 1 egress (mean 206.98 Mbit/s)

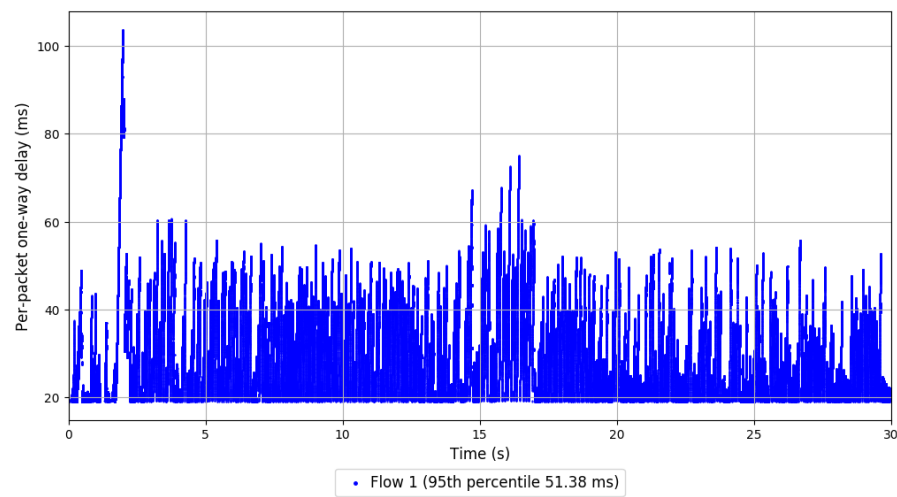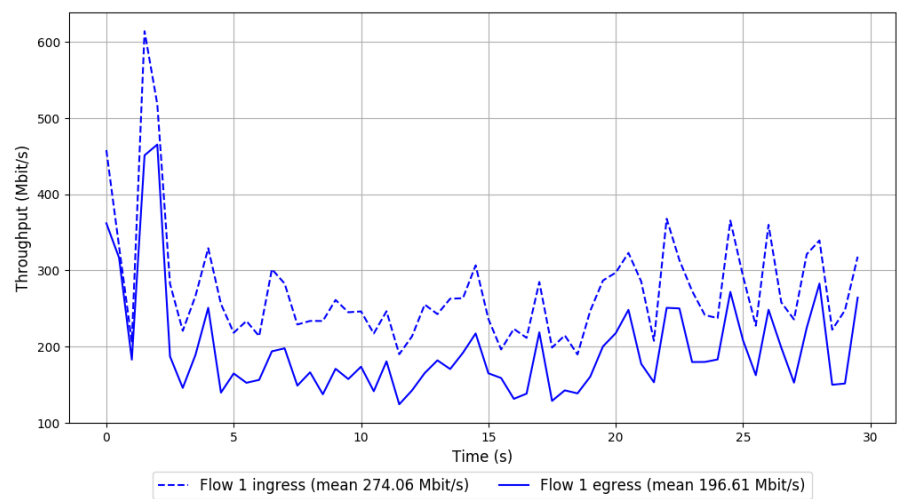• Flow 1 (95th percentile 48.70 ms)

```
Run 9: Statistics of Verus

Start at: 2017-12-11 16:30:35
End at: 2017-12-11 16:31:05
Local clock offset: -4.526 ms
Remote clock offset: -0.467 ms


# Below is generated by plot.py at 2017-12-11 19:14:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.61 Mbit/s
95th percentile per-packet one-way delay: 51.375 ms
Loss rate: 28.25%
-- Flow 1:
Average throughput: 196.61 Mbit/s
95th percentile per-packet one-way delay: 51.375 ms
Loss rate: 28.25%
```
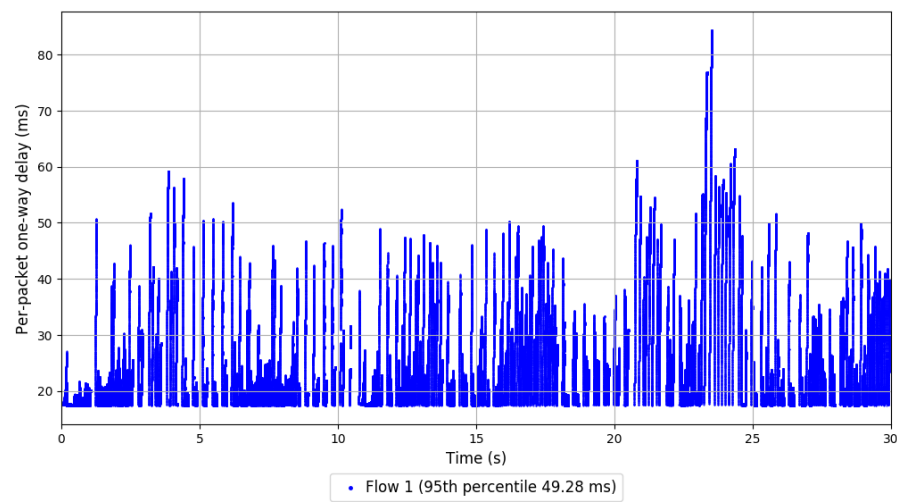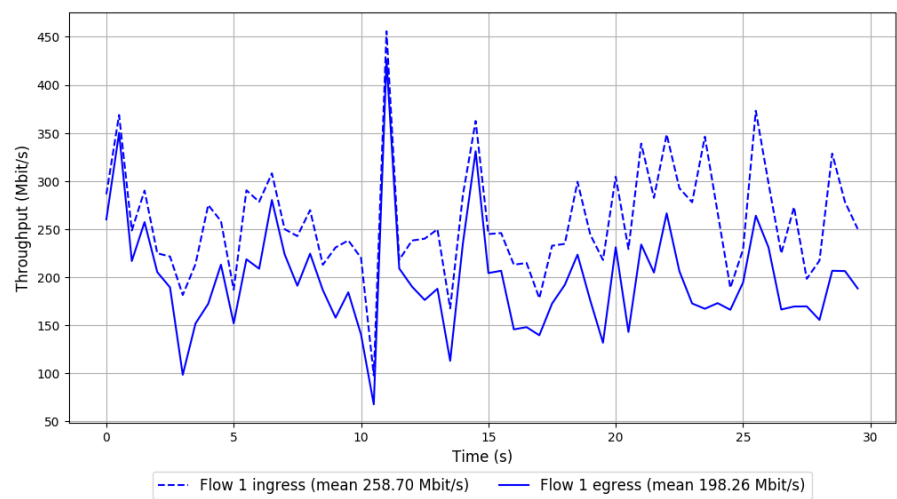
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2017-12-11 16:49:21
End at: 2017-12-11 16:49:51
Local clock offset: -3.565 ms
Remote clock offset: -0.313 ms


# Below is generated by plot.py at 2017-12-11 19:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.26 Mbit/s
95th percentile per-packet one-way delay: 49.282 ms
Loss rate: 23.30%
-- Flow 1:
Average throughput: 198.26 Mbit/s
95th percentile per-packet one-way delay: 49.282 ms
Loss rate: 23.30%
```

Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2017-12-11 14:04:57
End at: 2017-12-11 14:05:27
Local clock offset: -7.306 ms
Remote clock offset: -0.55 ms


# Below is generated by plot.py at 2017-12-11 19:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 103.34 Mbit/s
95th percentile per-packet one-way delay: 17.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.34 Mbit/s
95th percentile per-packet one-way delay: 17.382 ms
Loss rate: 0.00%
```
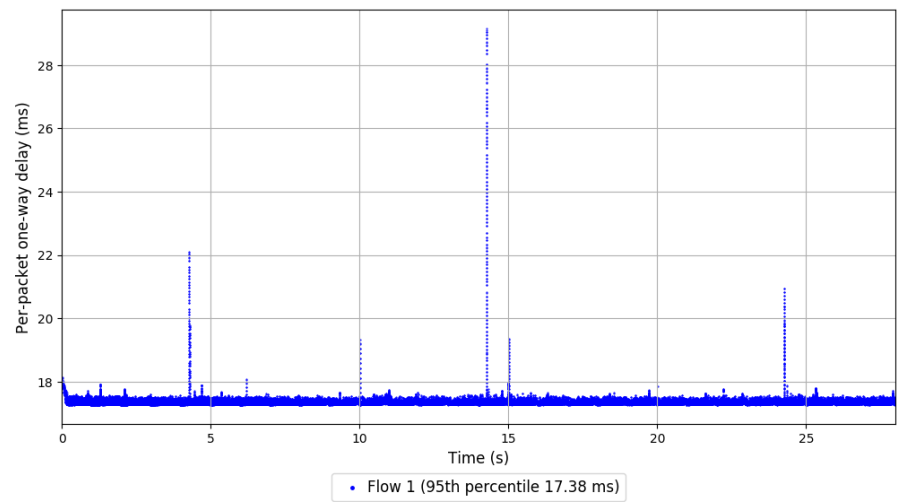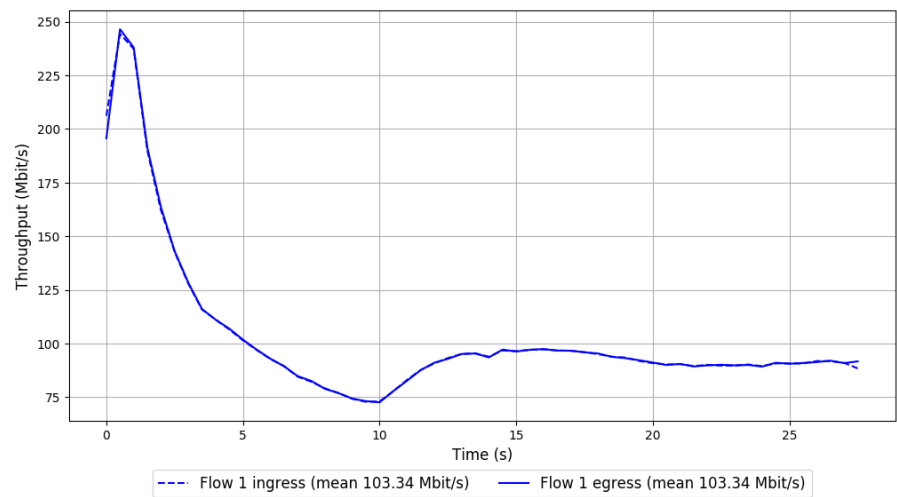
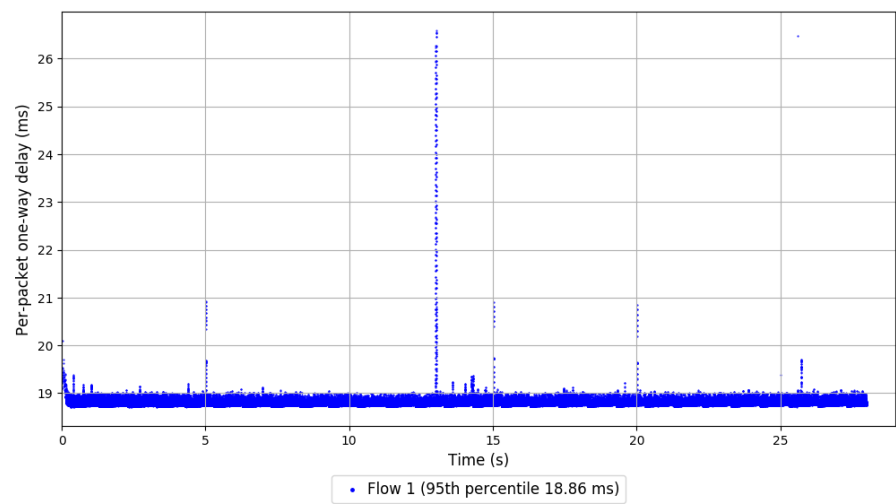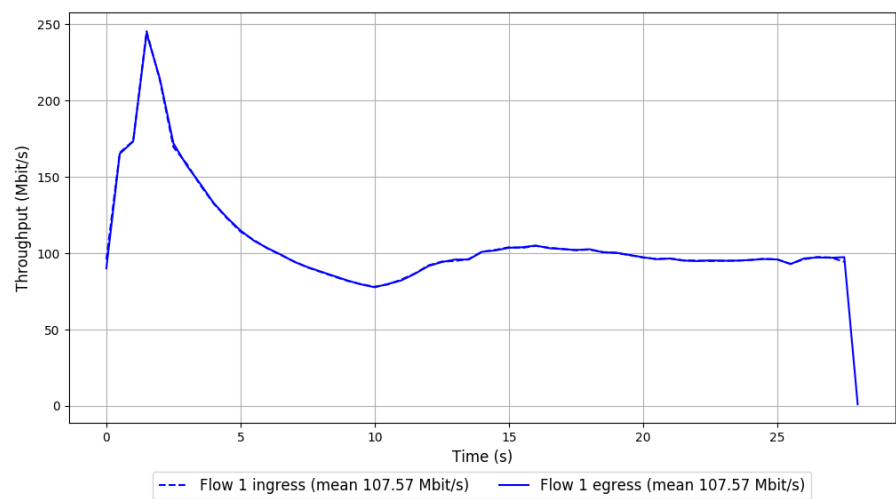Run 1: Report of Copa — Data Link

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```
Run 2: Statistics of Copa

Start at: 2017-12-11 14:23:13
End at: 2017-12-11 14:23:43
Local clock offset: -7.031 ms
Remote clock offset: -0.715 ms


# Below is generated by plot.py at 2017-12-11 19:15:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.57 Mbit/s
95th percentile per-packet one-way delay: 18.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.57 Mbit/s
95th percentile per-packet one-way delay: 18.857 ms
Loss rate: 0.00%
```

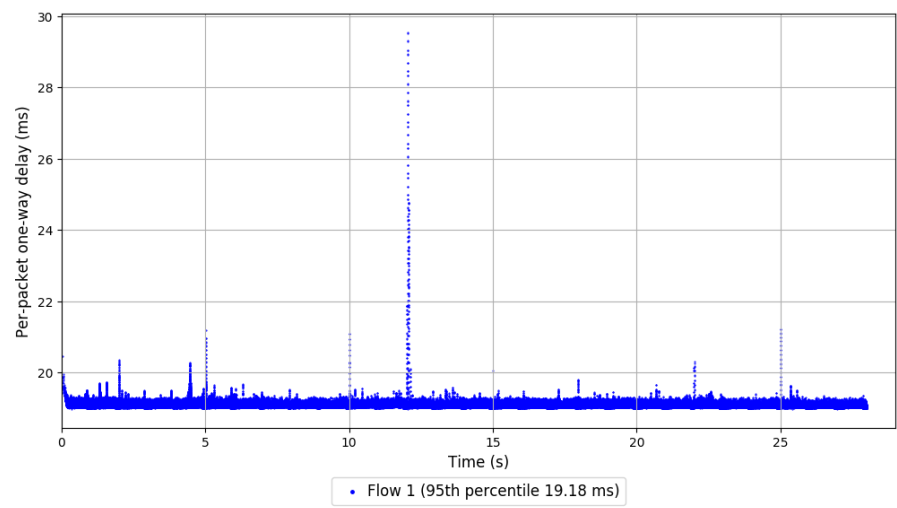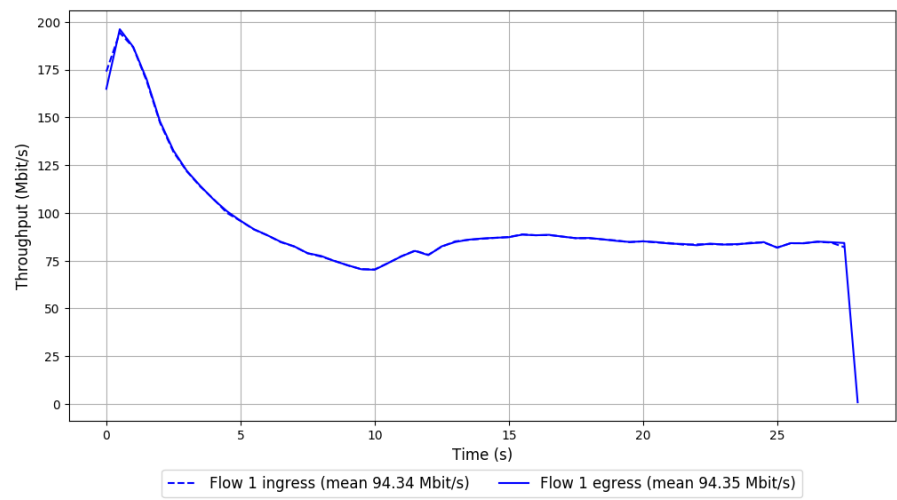Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2017-12-11 14:41:47
End at: 2017-12-11 14:42:17
Local clock offset: -7.033 ms
Remote clock offset: -0.725 ms


# Below is generated by plot.py at 2017-12-11 19:15:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.00%
```

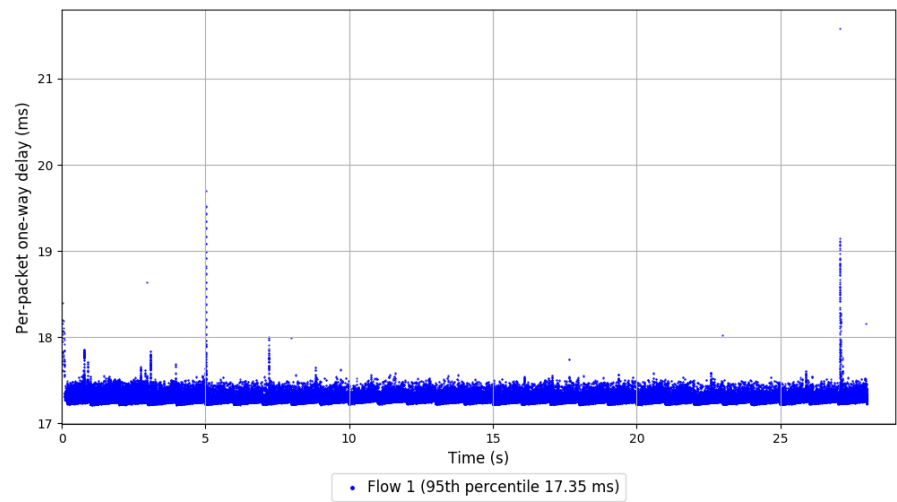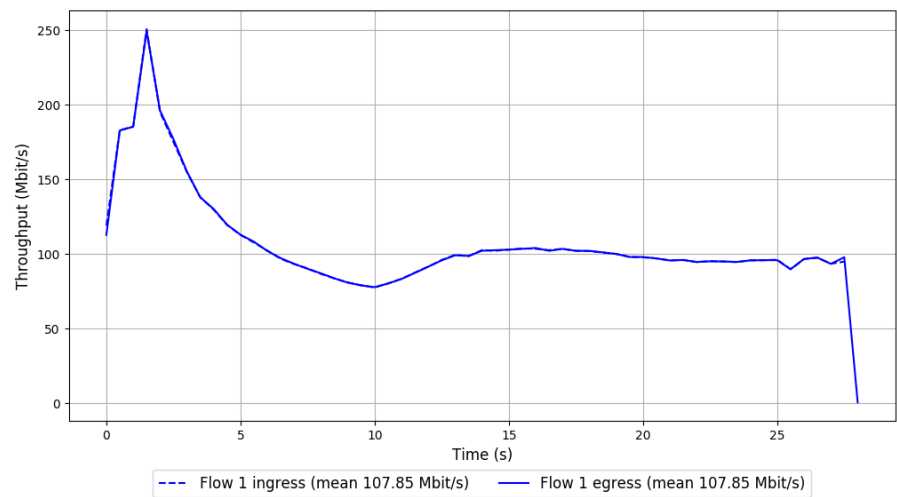## Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2017-12-11 15:00:40
End at: 2017-12-11 15:01:10
Local clock offset: -6.828 ms
Remote clock offset: -0.658 ms


# Below is generated by plot.py at 2017-12-11 19:15:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.85 Mbit/s
95th percentile per-packet one-way delay: 17.350 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.85 Mbit/s
95th percentile per-packet one-way delay: 17.350 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 107.85 Mbit/s)   Flow 1 egress (mean 107.85 Mbit/s)

Flow 1 (95th percentile 17.35 ms)

```
Run 5: Statistics of Copa

Start at: 2017-12-11 15:19:08
End at: 2017-12-11 15:19:38
Local clock offset: -6.69 ms
Remote clock offset: -0.97 ms


# Below is generated by plot.py at 2017-12-11 19:16:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.98 Mbit/s
95th percentile per-packet one-way delay: 17.387 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 107.98 Mbit/s
95th percentile per-packet one-way delay: 17.387 ms
Loss rate: 0.01%
```
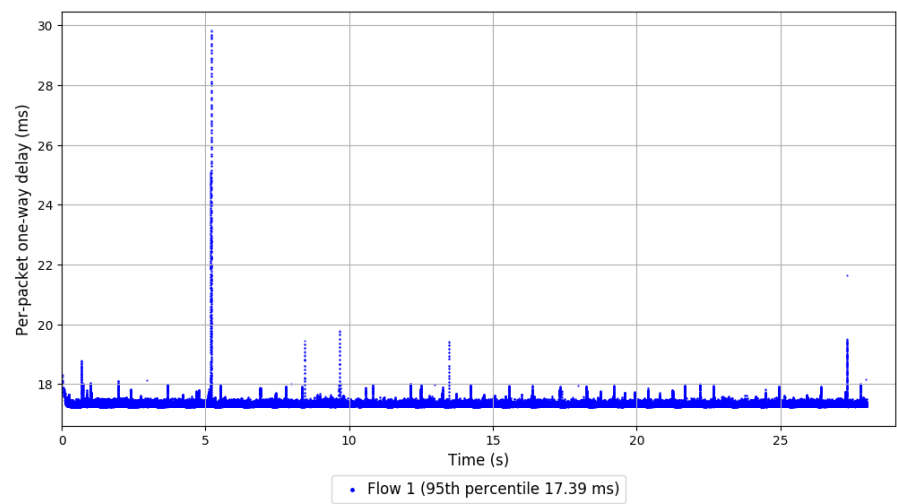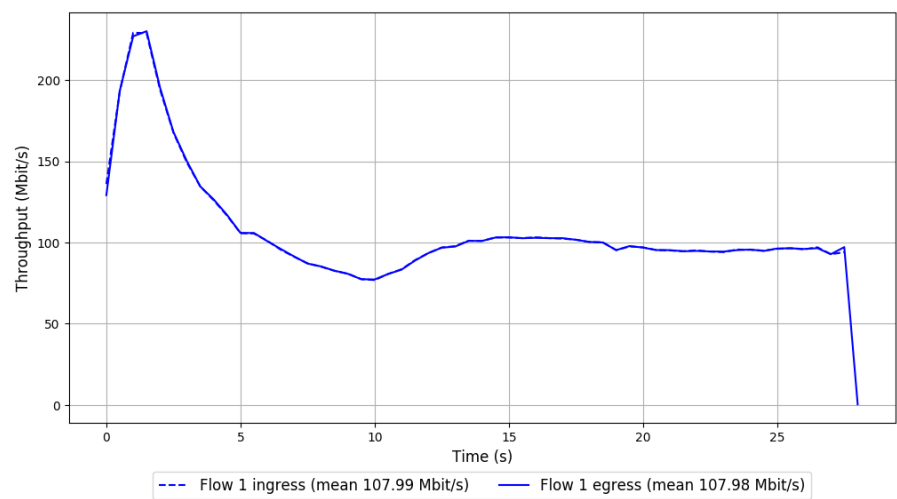
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 107.99 Mbit/s) — — — Flow 1 egress (mean 107.98 Mbit/s)

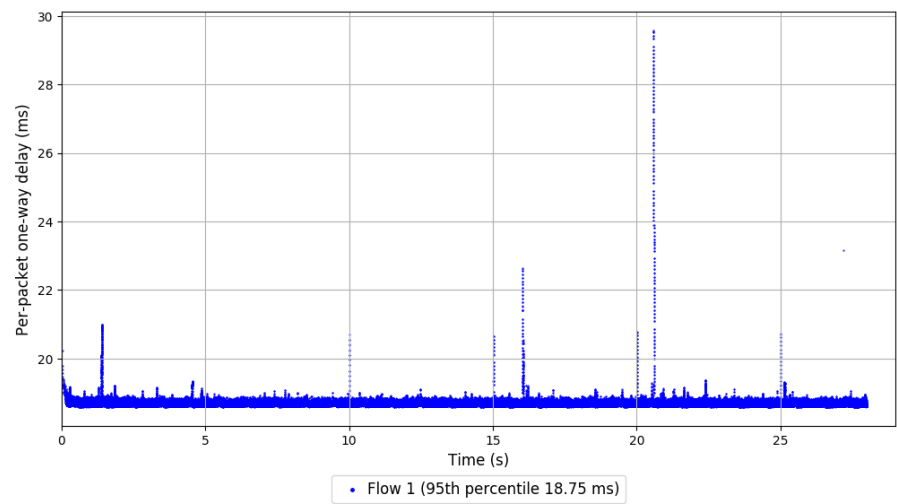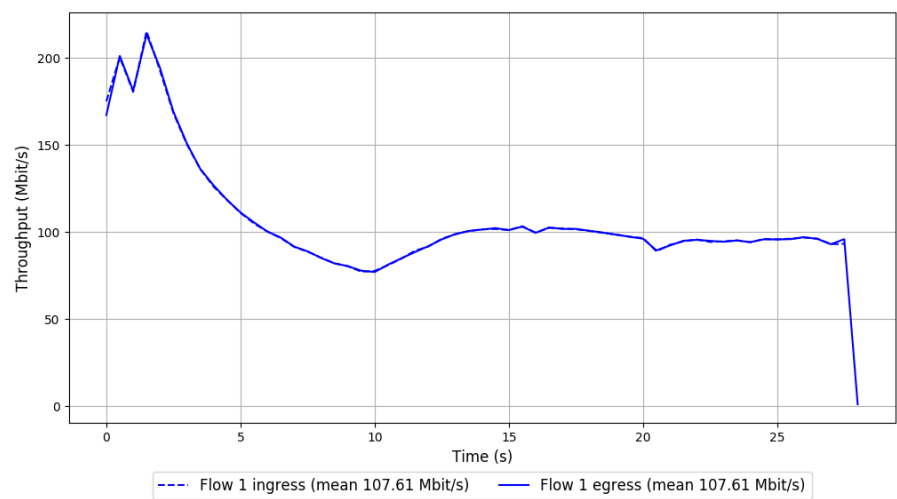Flow 1 (95th percentile 17.39 ms)

```
Run 6: Statistics of Copa

Start at: 2017-12-11 15:37:46
End at: 2017-12-11 15:38:16
Local clock offset: -6.671 ms
Remote clock offset: -0.995 ms


# Below is generated by plot.py at 2017-12-11 19:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.61 Mbit/s
95th percentile per-packet one-way delay: 18.750 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.61 Mbit/s
95th percentile per-packet one-way delay: 18.750 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2017-12-11 15:56:15
End at: 2017-12-11 15:56:45
Local clock offset: -6.474 ms
Remote clock offset: -0.66 ms


# Below is generated by plot.py at 2017-12-11 19:17:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 101.37 Mbit/s
95th percentile per-packet one-way delay: 19.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 101.37 Mbit/s
95th percentile per-packet one-way delay: 19.080 ms
Loss rate: 0.00%
```
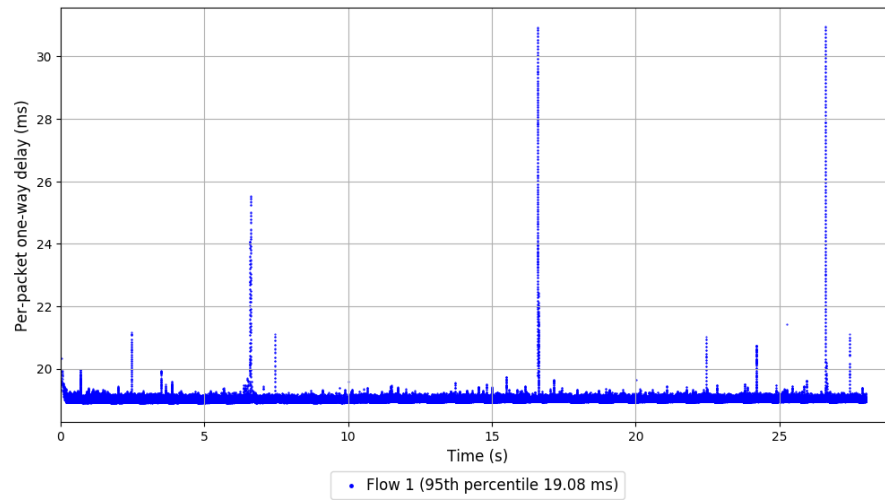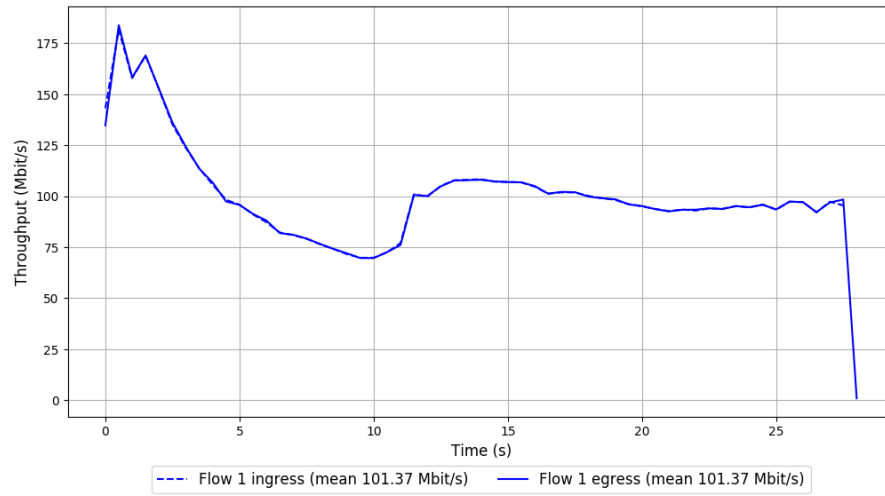
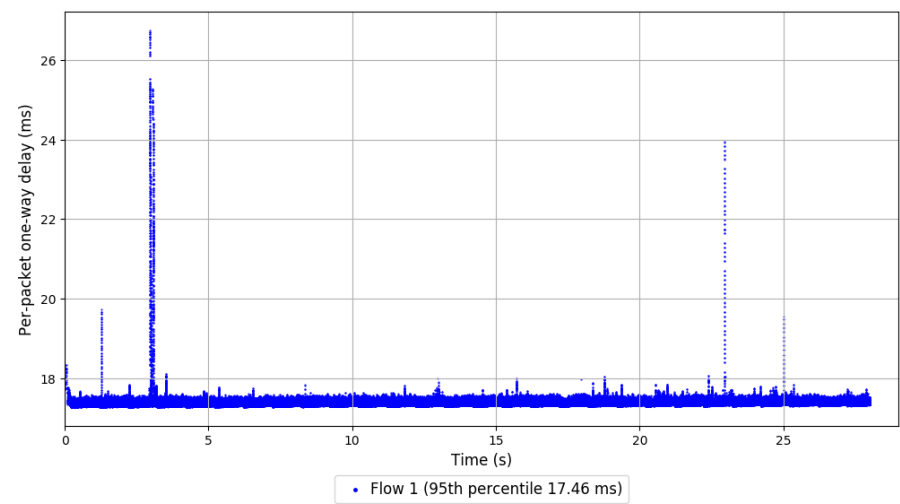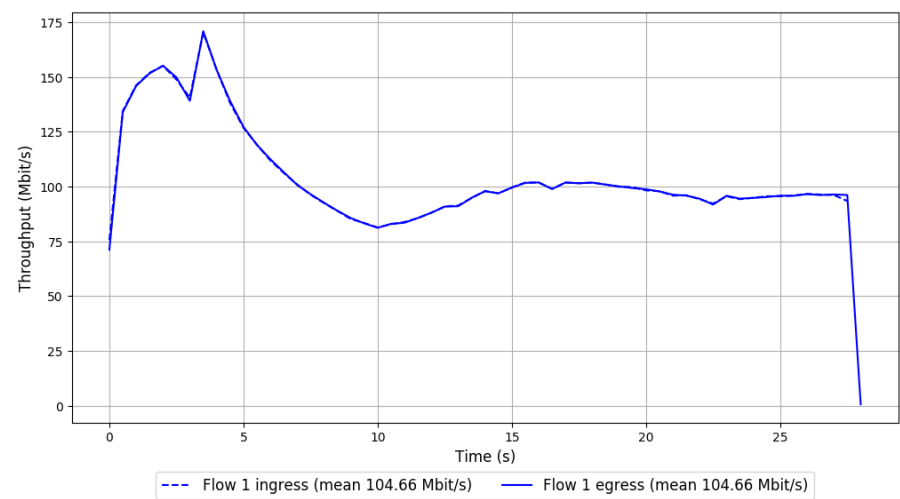Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2017-12-11 16:14:49
End at: 2017-12-11 16:15:19
Local clock offset: -5.197 ms
Remote clock offset: -0.665 ms


# Below is generated by plot.py at 2017-12-11 19:17:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 104.66 Mbit/s
95th percentile per-packet one-way delay: 17.461 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.66 Mbit/s
95th percentile per-packet one-way delay: 17.461 ms
Loss rate: 0.00%
```

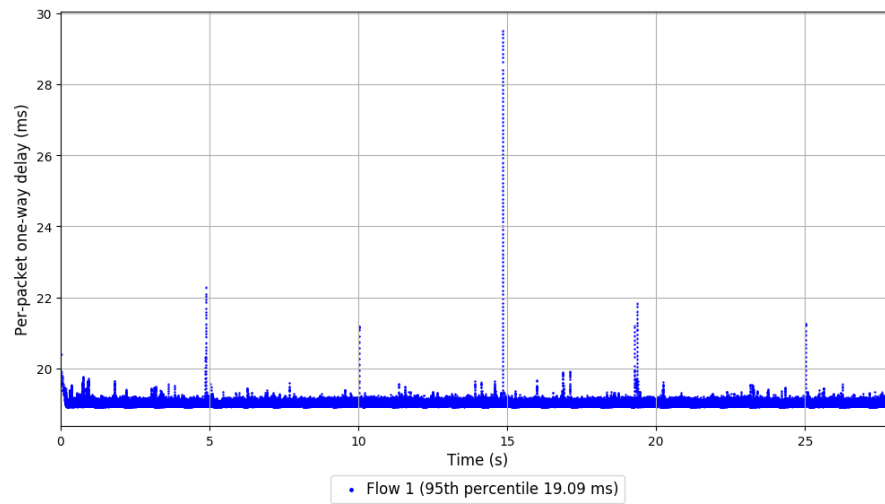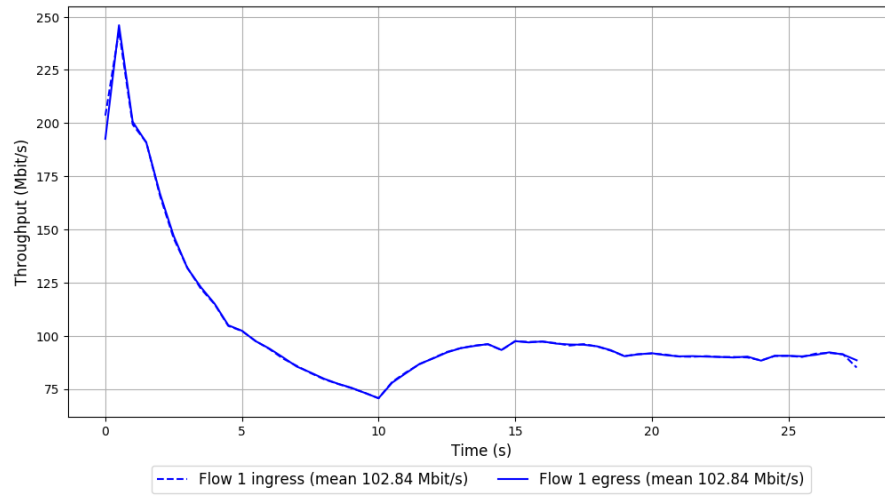Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2017-12-11 16:33:22
End at: 2017-12-11 16:33:52
Local clock offset: -4.494 ms
Remote clock offset: -0.467 ms


# Below is generated by plot.py at 2017-12-11 19:17:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 102.84 Mbit/s
95th percentile per-packet one-way delay: 19.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.84 Mbit/s
95th percentile per-packet one-way delay: 19.094 ms
Loss rate: 0.00%
```

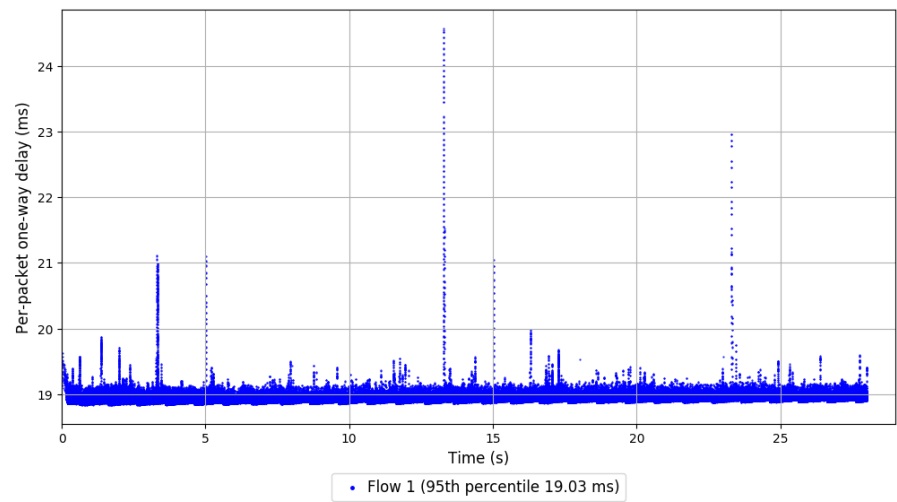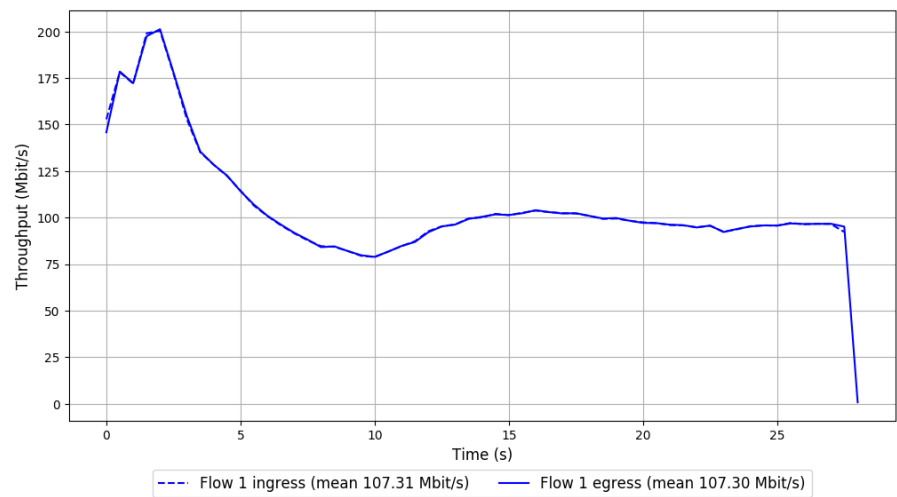Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2017-12-11 16:52:07
End at: 2017-12-11 16:52:37
Local clock offset: -3.229 ms
Remote clock offset: -0.386 ms


# Below is generated by plot.py at 2017-12-11 19:17:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.30 Mbit/s
95th percentile per-packet one-way delay: 19.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.30 Mbit/s
95th percentile per-packet one-way delay: 19.027 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 107.31 Mbit/s)   Flow 1 egress (mean 107.30 Mbit/s)

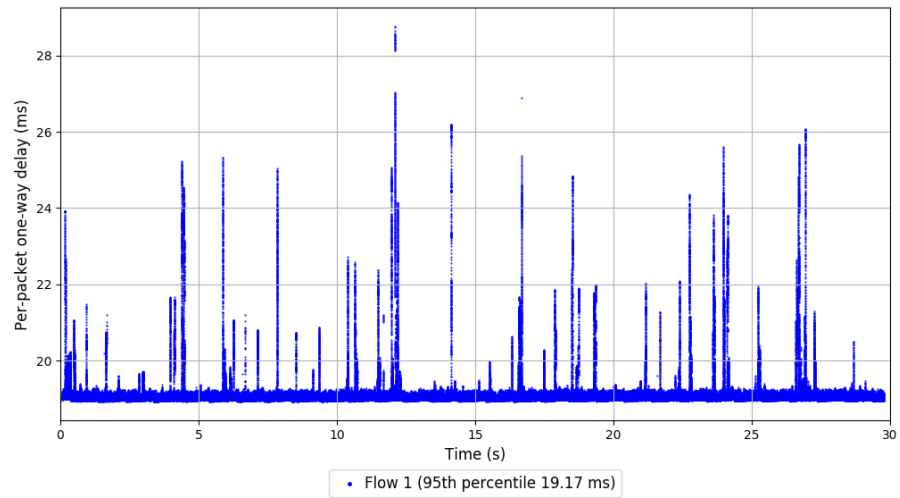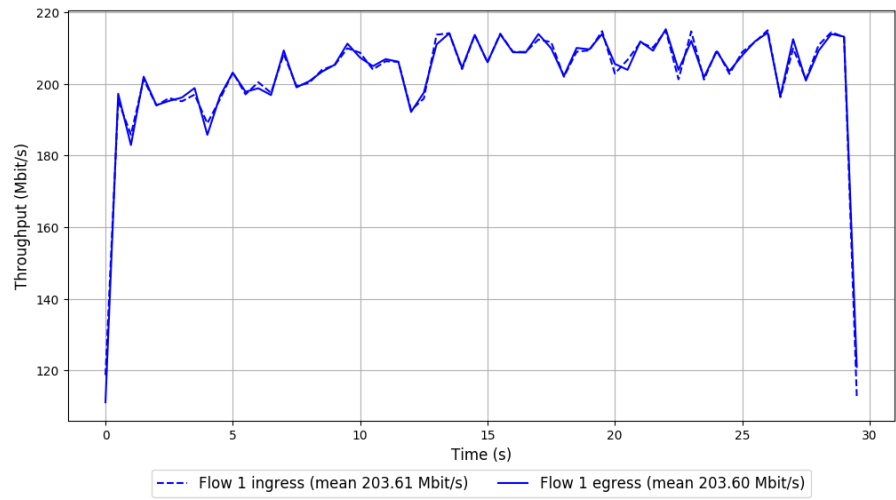Flow 1 (95th percentile 19.03 ms)

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```
Run 1: Statistics of Indigo

Start at: 2017-12-11 14:18:01
End at: 2017-12-11 14:18:31
Local clock offset: -7.081 ms
Remote clock offset: -0.647 ms


# Below is generated by plot.py at 2017-12-11 19:18:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.60 Mbit/s
95th percentile per-packet one-way delay: 19.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.60 Mbit/s
95th percentile per-packet one-way delay: 19.174 ms
Loss rate: 0.00%
```
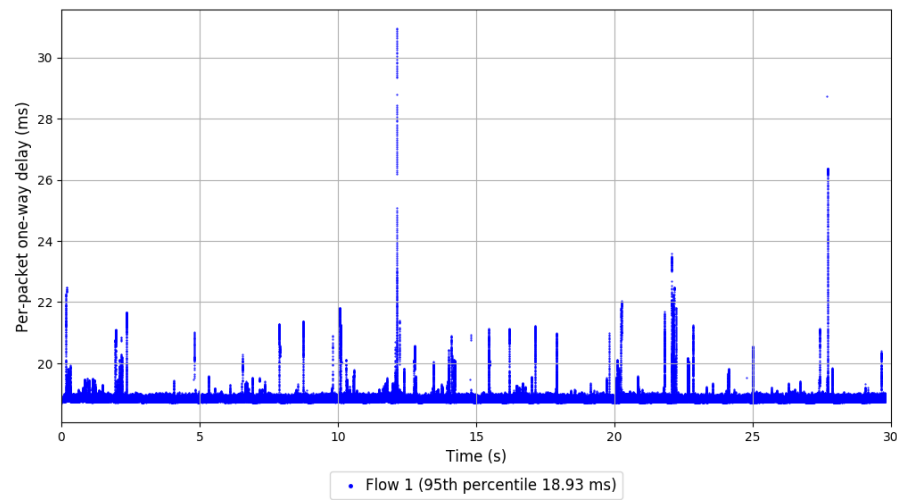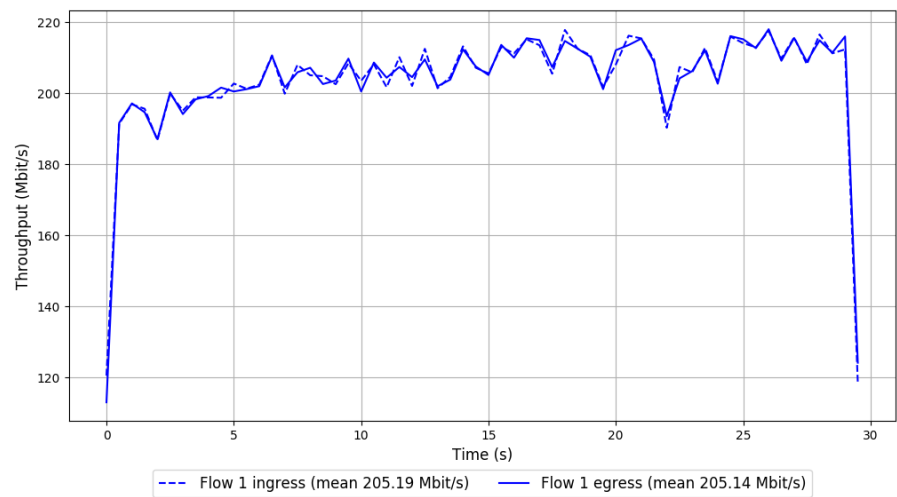
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-12-11 14:36:34
End at: 2017-12-11 14:37:04
Local clock offset: -7.045 ms
Remote clock offset: -0.894 ms


# Below is generated by plot.py at 2017-12-11 19:18:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.14 Mbit/s
95th percentile per-packet one-way delay: 18.935 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 205.14 Mbit/s
95th percentile per-packet one-way delay: 18.935 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 205.19 Mbit/s) --- Flow 1 egress (mean 205.14 Mbit/s)

Flow 1 (95th percentile 18.93 ms)

```
Run 3: Statistics of Indigo

Start at: 2017-12-11 14:55:10
End at: 2017-12-11 14:55:40
Local clock offset: -6.902 ms
Remote clock offset: -0.73 ms


# Below is generated by plot.py at 2017-12-11 19:19:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.12 Mbit/s
95th percentile per-packet one-way delay: 19.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.12 Mbit/s
95th percentile per-packet one-way delay: 19.059 ms
Loss rate: 0.00%
```
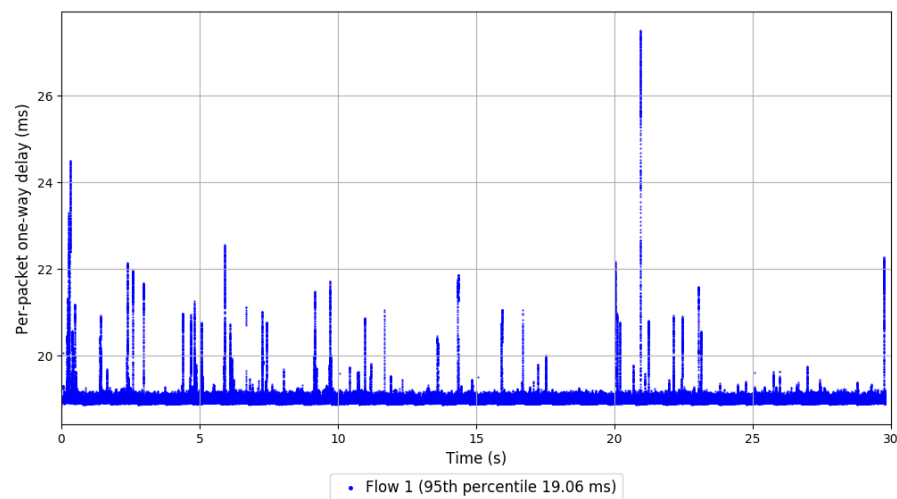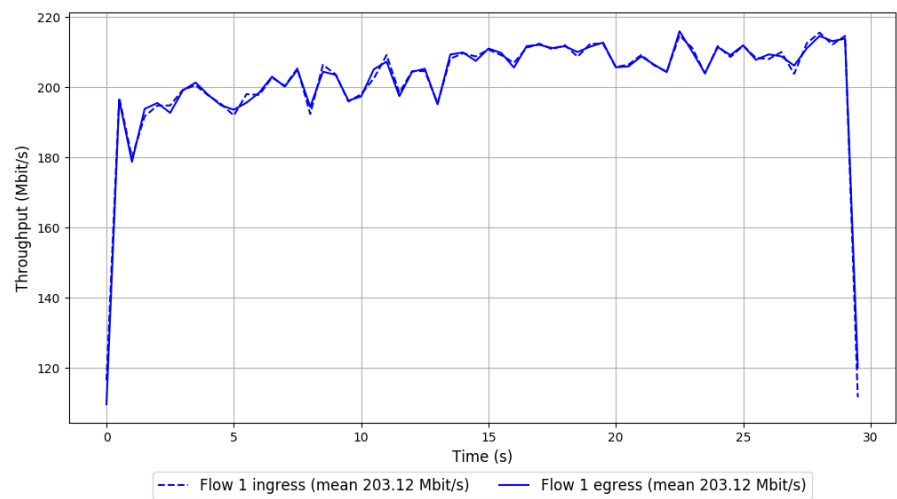
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2017-12-11 15:13:45
End at: 2017-12-11 15:14:15
Local clock offset: -6.727 ms
Remote clock offset: -0.92 ms


# Below is generated by plot.py at 2017-12-11 19:20:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.83 Mbit/s
95th percentile per-packet one-way delay: 19.102 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.83 Mbit/s
95th percentile per-packet one-way delay: 19.102 ms
Loss rate: 0.00%
```
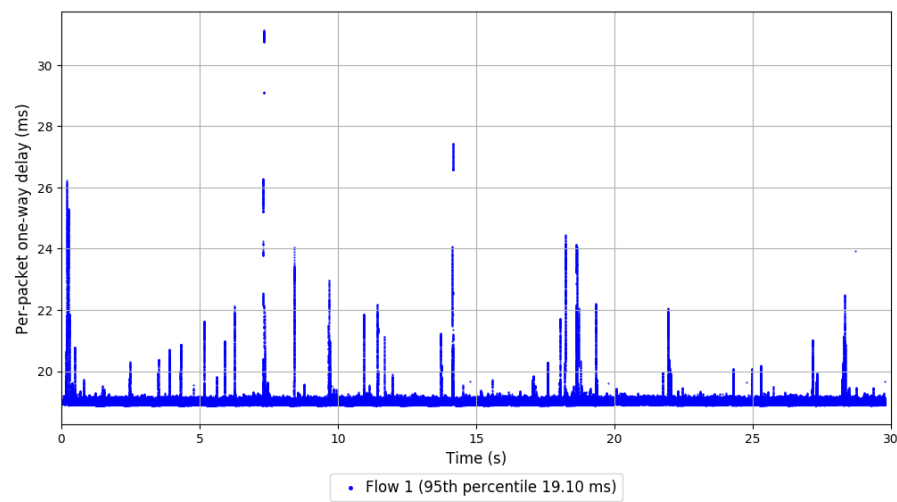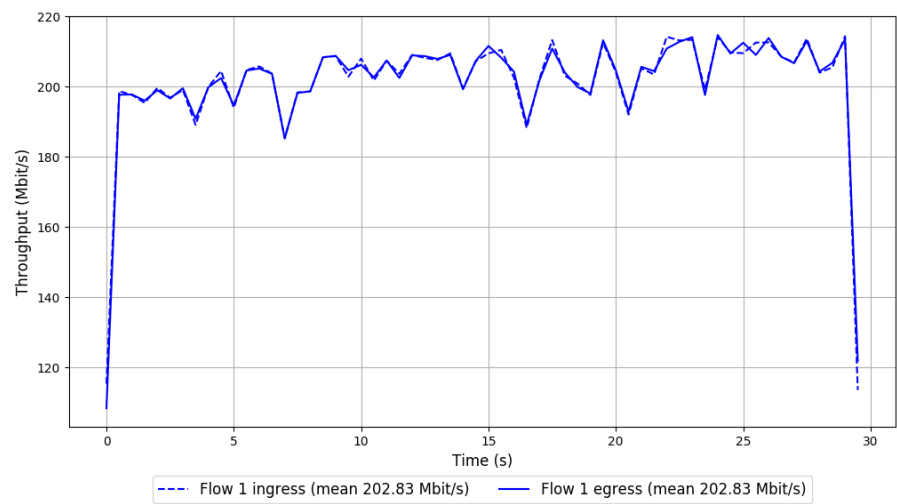
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2017-12-11 15:32:12
End at: 2017-12-11 15:32:42
Local clock offset: -6.767 ms
Remote clock offset: -1.13 ms


# Below is generated by plot.py at 2017-12-11 19:20:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.60 Mbit/s
95th percentile per-packet one-way delay: 19.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.60 Mbit/s
95th percentile per-packet one-way delay: 19.002 ms
Loss rate: 0.00%
```
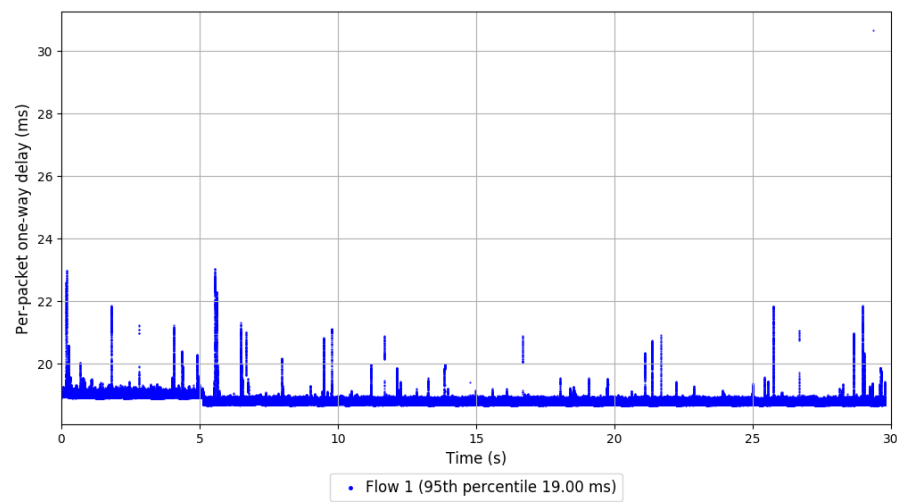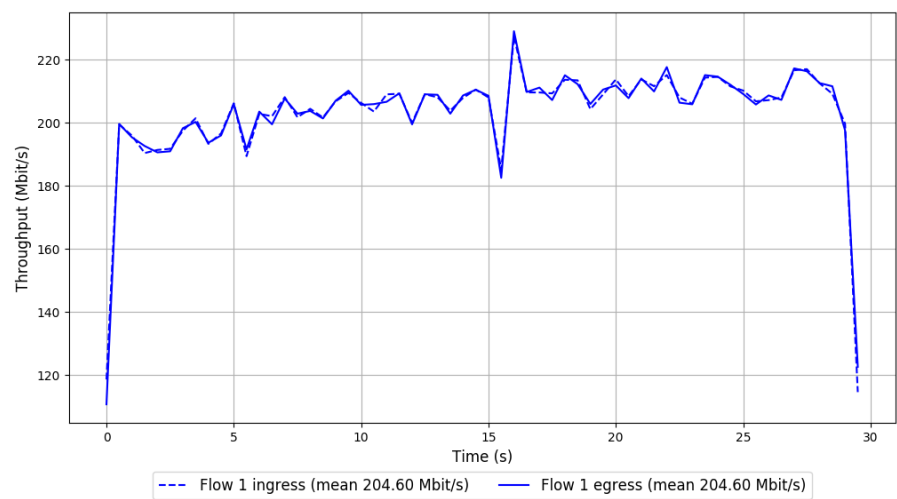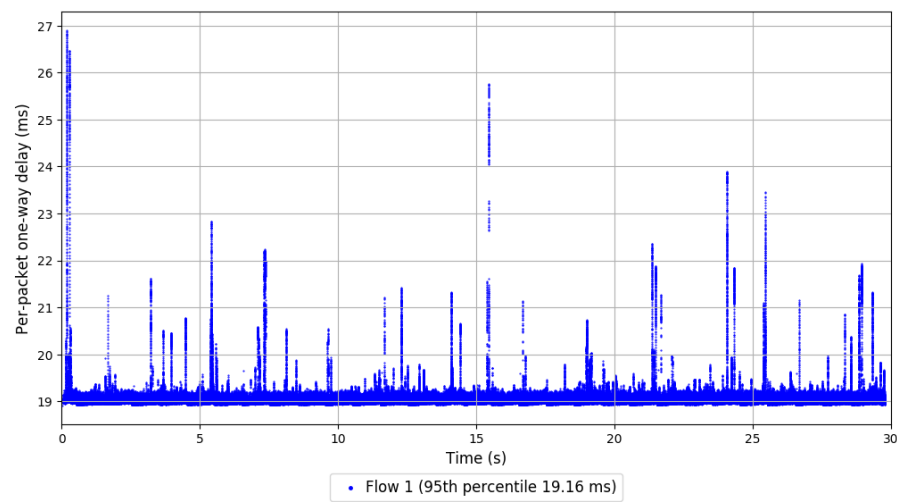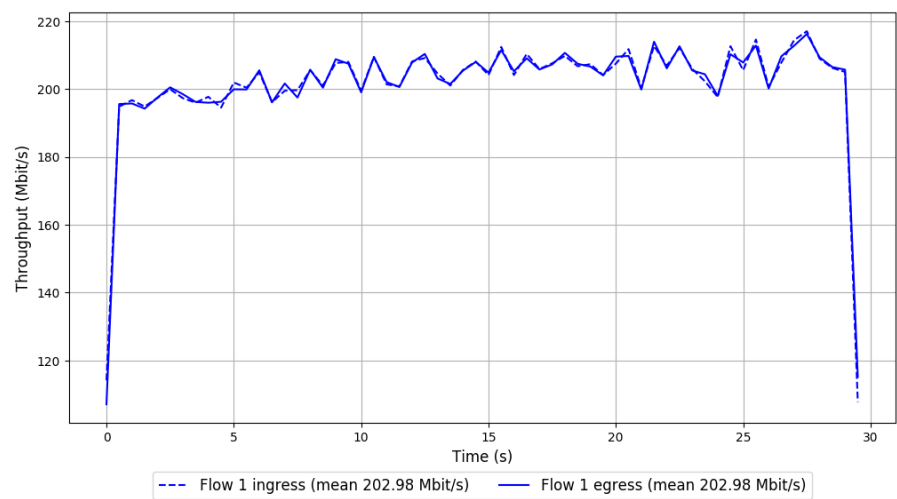
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2017-12-11 15:50:53
End at: 2017-12-11 15:51:23
Local clock offset: -6.602 ms
Remote clock offset: -0.644 ms


# Below is generated by plot.py at 2017-12-11 19:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.98 Mbit/s
95th percentile per-packet one-way delay: 19.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.98 Mbit/s
95th percentile per-packet one-way delay: 19.158 ms
Loss rate: 0.00%
```
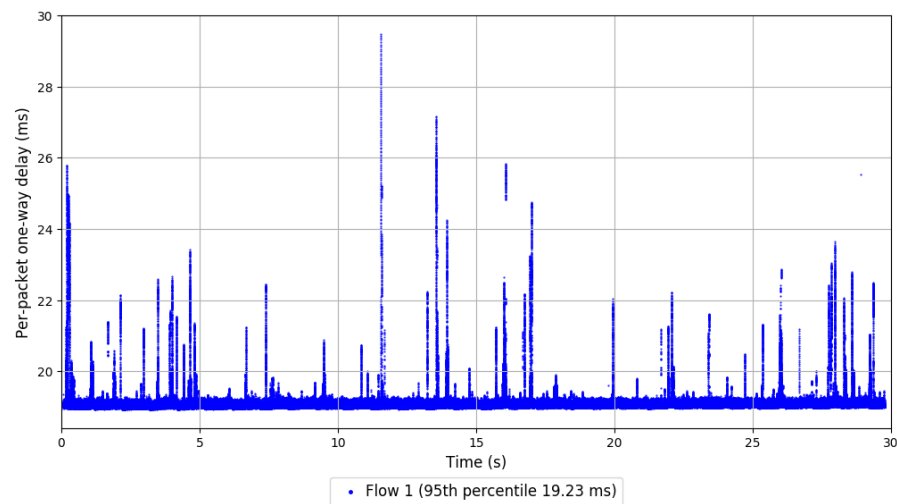
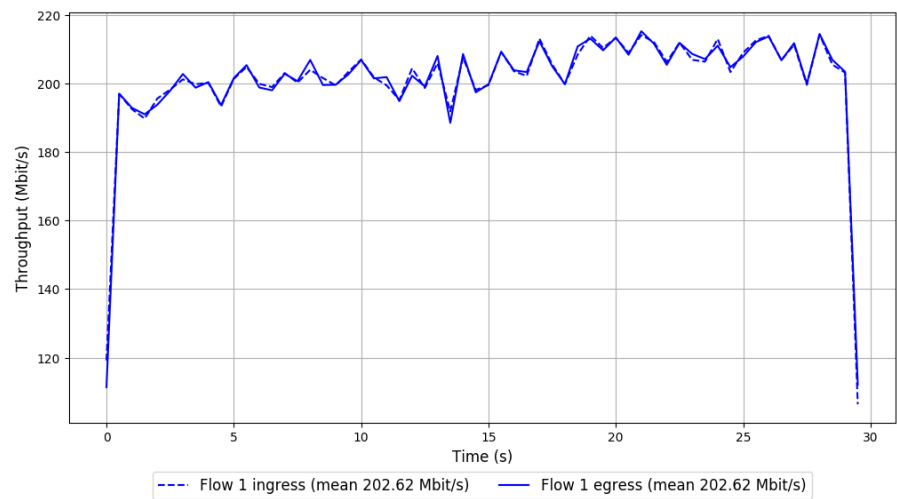## Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-12-11 16:09:23
End at: 2017-12-11 16:09:53
Local clock offset: -5.822 ms
Remote clock offset: -0.809 ms


# Below is generated by plot.py at 2017-12-11 19:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.62 Mbit/s
95th percentile per-packet one-way delay: 19.229 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.62 Mbit/s
95th percentile per-packet one-way delay: 19.229 ms
Loss rate: 0.00%
```
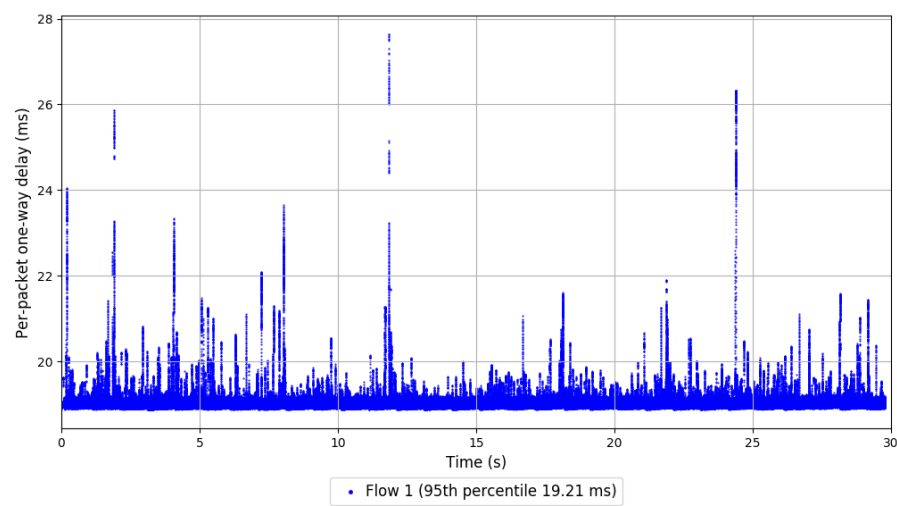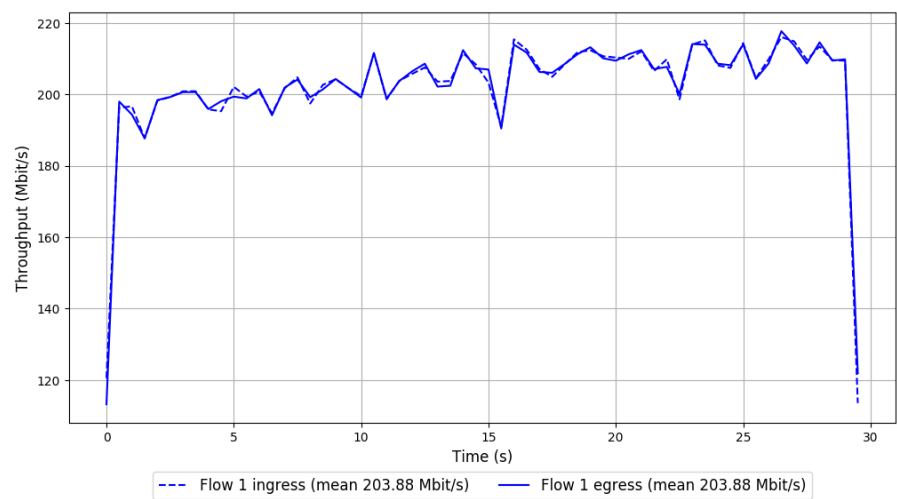
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2017-12-11 16:27:52
End at: 2017-12-11 16:28:22
Local clock offset: -4.533 ms
Remote clock offset: -0.544 ms


# Below is generated by plot.py at 2017-12-11 19:20:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.88 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.88 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
```
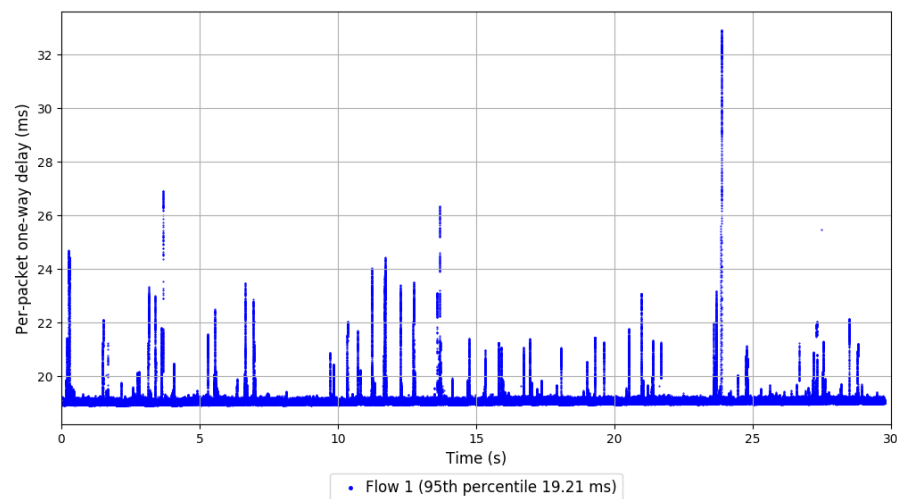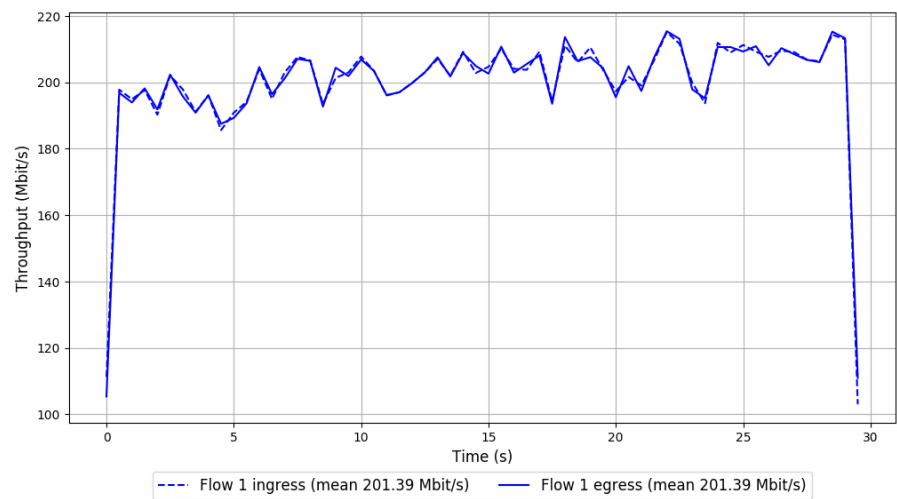
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-12-11 16:46:40
End at: 2017-12-11 16:47:10
Local clock offset: -3.669 ms
Remote clock offset: -0.203 ms


# Below is generated by plot.py at 2017-12-11 19:21:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.39 Mbit/s
95th percentile per-packet one-way delay: 19.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.39 Mbit/s
95th percentile per-packet one-way delay: 19.208 ms
Loss rate: 0.00%
```

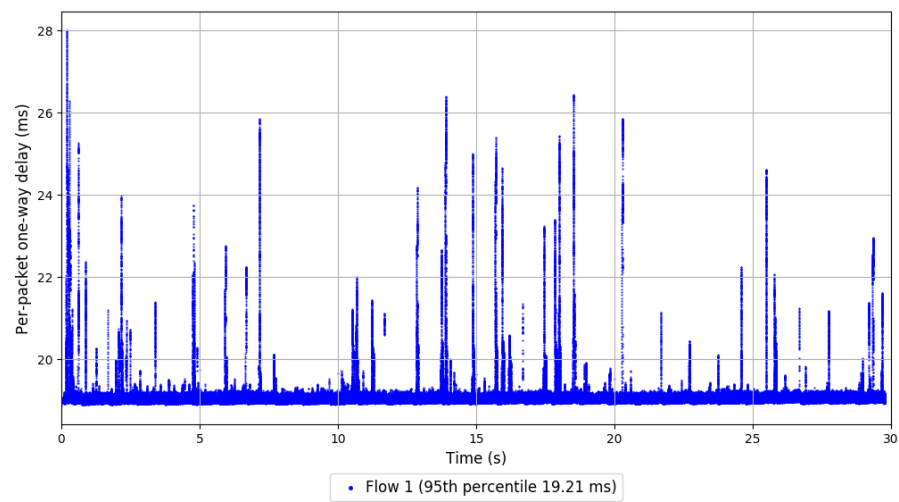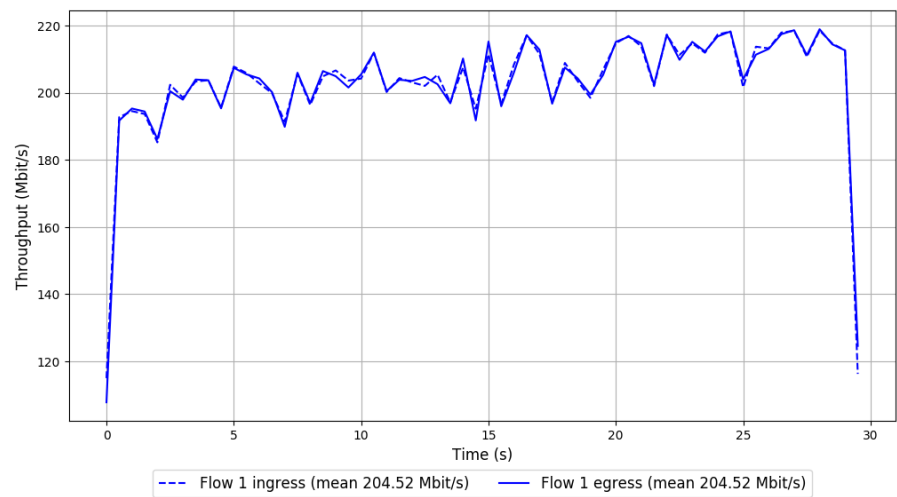## Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2017-12-11 17:05:11
End at: 2017-12-11 17:05:41
Local clock offset: -2.592 ms
Remote clock offset: -0.764 ms

# Below is generated by plot.py at 2017-12-11 19:21:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.52 Mbit/s
95th percentile per-packet one-way delay: 19.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.52 Mbit/s
95th percentile per-packet one-way delay: 19.208 ms
Loss rate: 0.00%
```

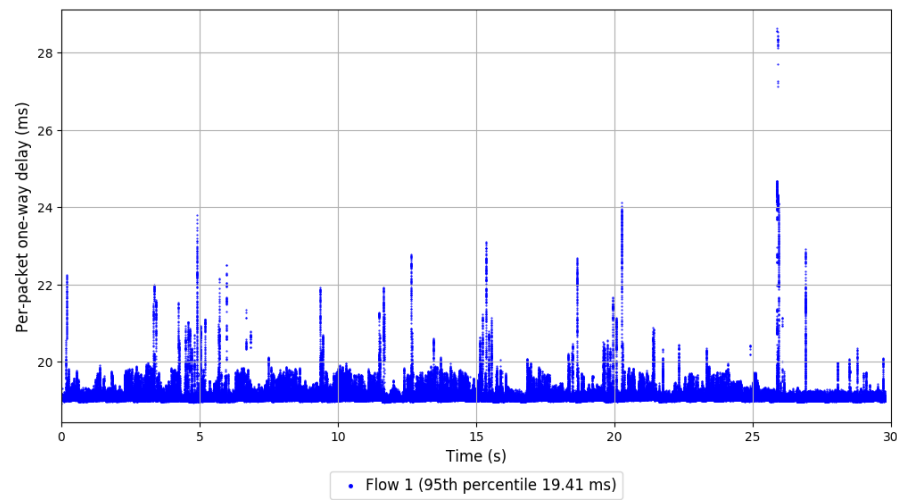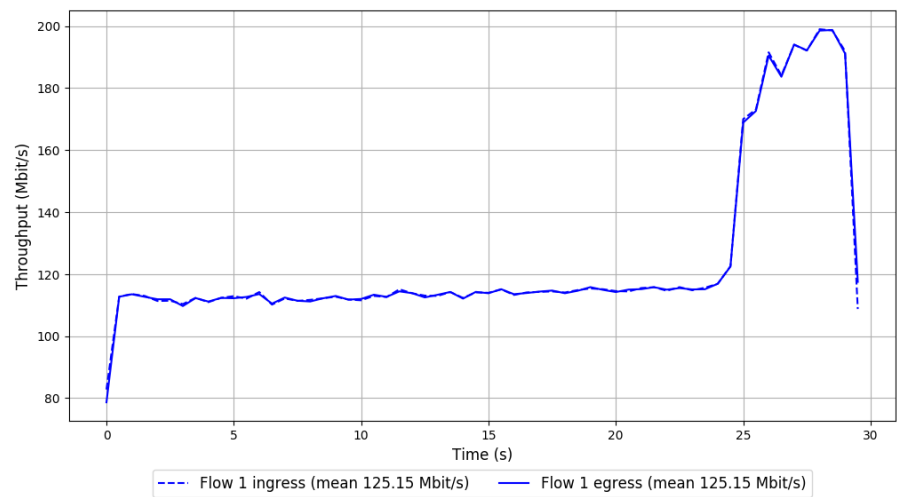## Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-11 14:14:07
End at: 2017-12-11 14:14:37
Local clock offset: -7.208 ms
Remote clock offset: -0.623 ms


# Below is generated by plot.py at 2017-12-11 19:21:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.15 Mbit/s
95th percentile per-packet one-way delay: 19.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 125.15 Mbit/s
95th percentile per-packet one-way delay: 19.407 ms
Loss rate: 0.00%
```

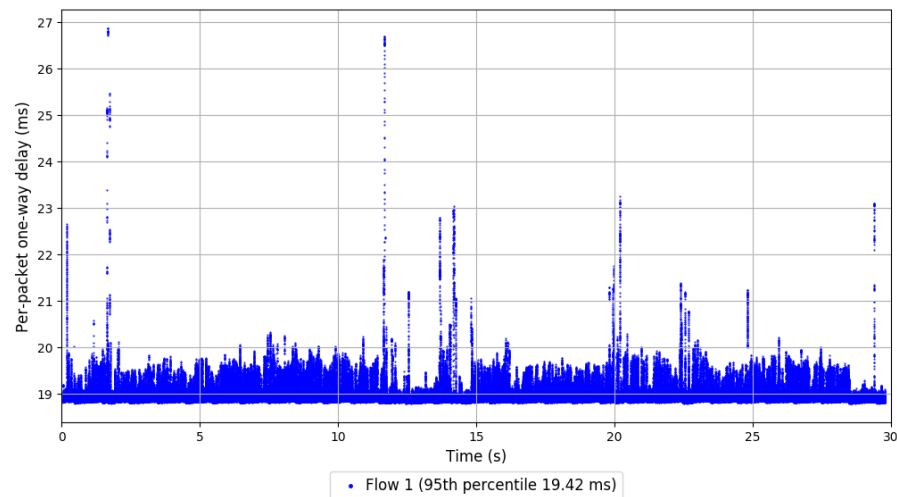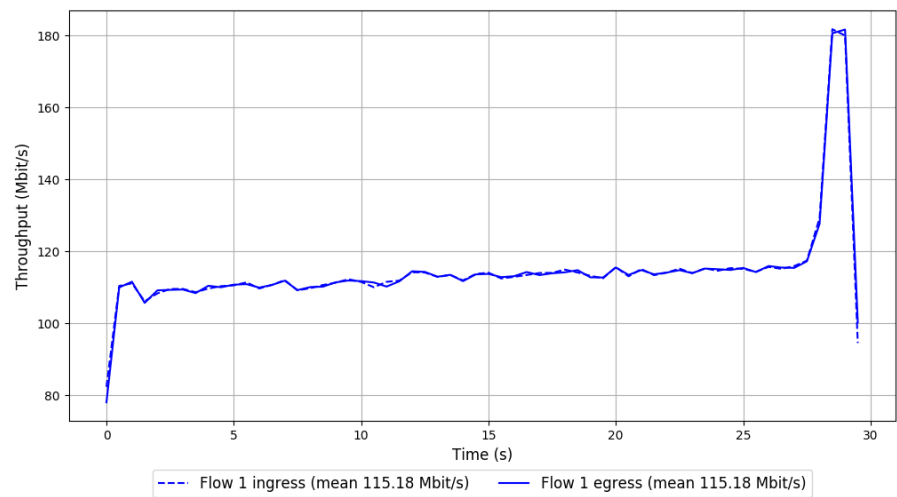Run 1: Report of Indigo-calib — Data Link

```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-11 14:32:39
End at: 2017-12-11 14:33:09
Local clock offset: -6.968 ms
Remote clock offset: -0.937 ms


# Below is generated by plot.py at 2017-12-11 19:21:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 115.18 Mbit/s
95th percentile per-packet one-way delay: 19.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 115.18 Mbit/s
95th percentile per-packet one-way delay: 19.417 ms
Loss rate: 0.00%
```

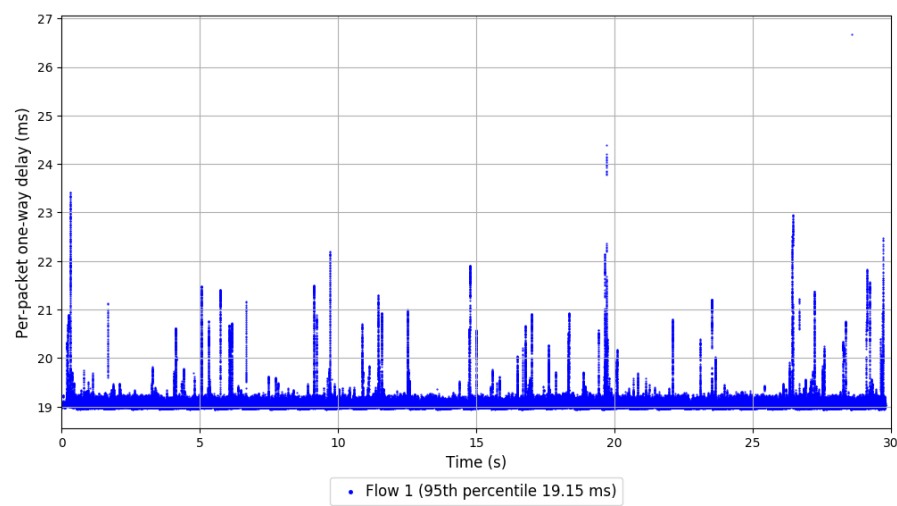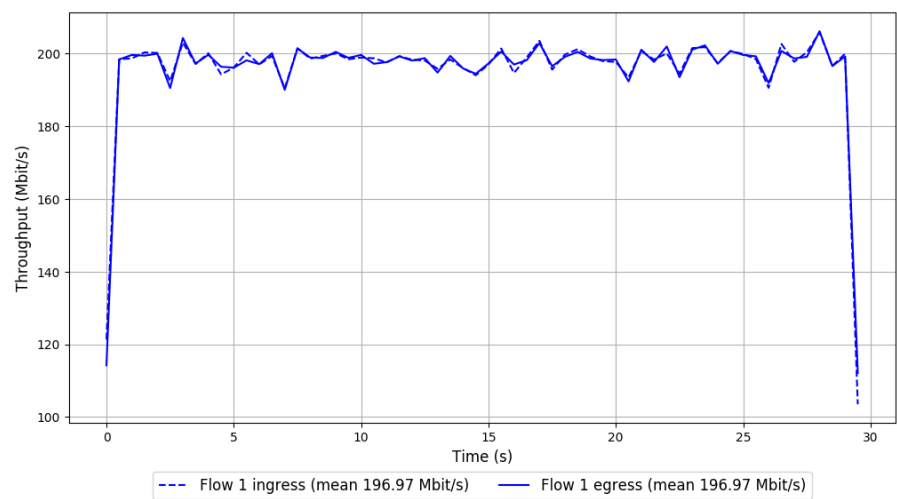Run 2: Report of Indigo-calib — Data Link

```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-11 14:51:11
End at: 2017-12-11 14:51:41
Local clock offset: -6.984 ms
Remote clock offset: -0.773 ms

# Below is generated by plot.py at 2017-12-11 19:22:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.97 Mbit/s
95th percentile per-packet one-way delay: 19.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 196.97 Mbit/s
95th percentile per-packet one-way delay: 19.148 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 196.97 Mbit/s)   Flow 1 egress (mean 196.97 Mbit/s)
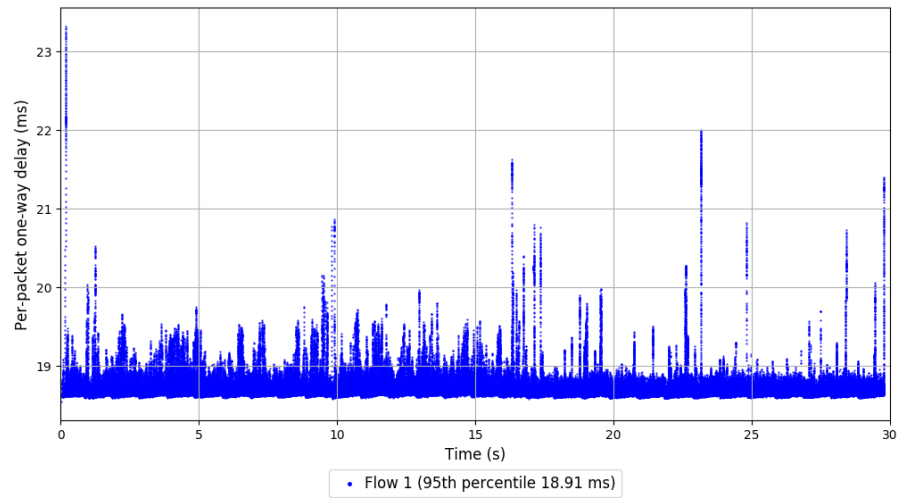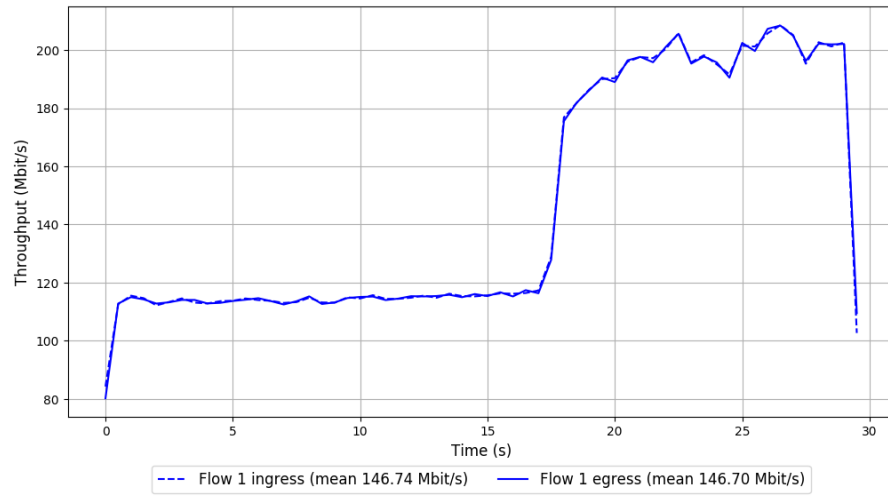

Flow 1 (95th percentile 19.15 ms)

```
Run 4: Statistics of Indigo-calib

Start at: 2017-12-11 15:09:49
End at: 2017-12-11 15:10:19
Local clock offset: -6.754 ms
Remote clock offset: -0.924 ms

# Below is generated by plot.py at 2017-12-11 19:22:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.70 Mbit/s
95th percentile per-packet one-way delay: 18.906 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 146.70 Mbit/s
95th percentile per-packet one-way delay: 18.906 ms
Loss rate: 0.02%
```

Run 4: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 146.74 Mbit/s) — Flow 1 egress (mean 146.70 Mbit/s)

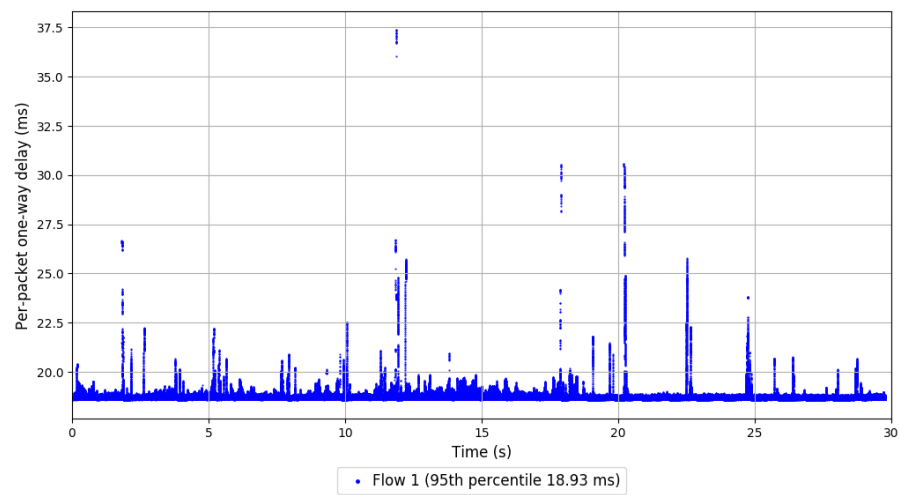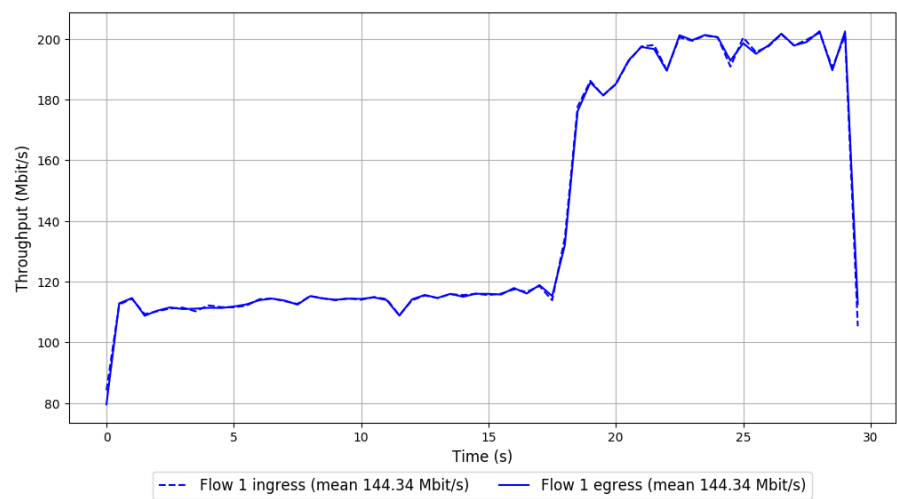

• Flow 1 (95th percentile 18.91 ms)

```
Run 5: Statistics of Indigo-calib

Start at: 2017-12-11 15:28:17
End at: 2017-12-11 15:28:47
Local clock offset: -6.676 ms
Remote clock offset: -1.204 ms


# Below is generated by plot.py at 2017-12-11 19:22:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.34 Mbit/s
95th percentile per-packet one-way delay: 18.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 144.34 Mbit/s
95th percentile per-packet one-way delay: 18.928 ms
Loss rate: 0.00%
```

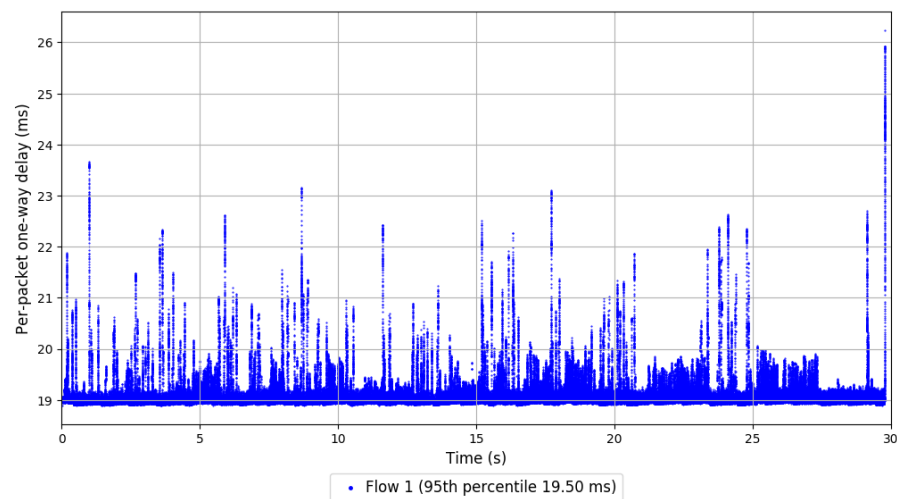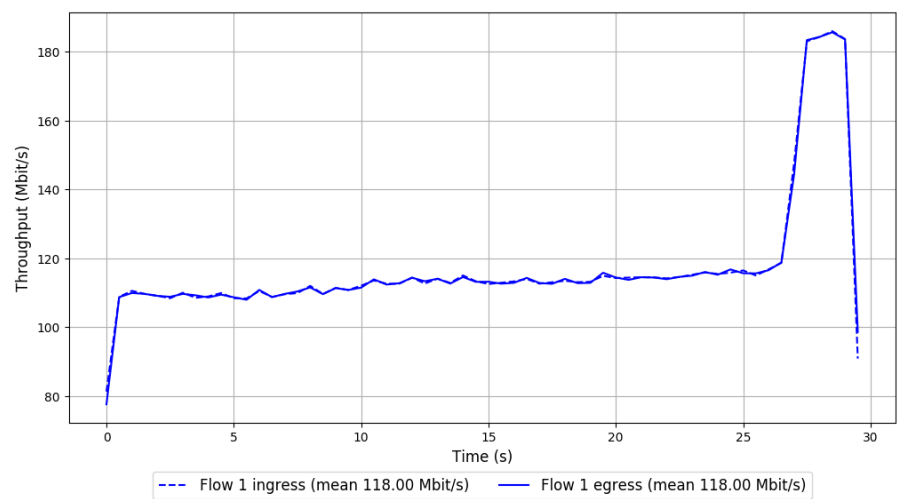Run 5: Report of Indigo-calib — Data Link

```
Run 6: Statistics of Indigo-calib

Start at: 2017-12-11 15:46:59
End at: 2017-12-11 15:47:29
Local clock offset: -6.784 ms
Remote clock offset: -0.833 ms


# Below is generated by plot.py at 2017-12-11 19:22:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.00 Mbit/s
95th percentile per-packet one-way delay: 19.498 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 118.00 Mbit/s
95th percentile per-packet one-way delay: 19.498 ms
Loss rate: 0.00%
```

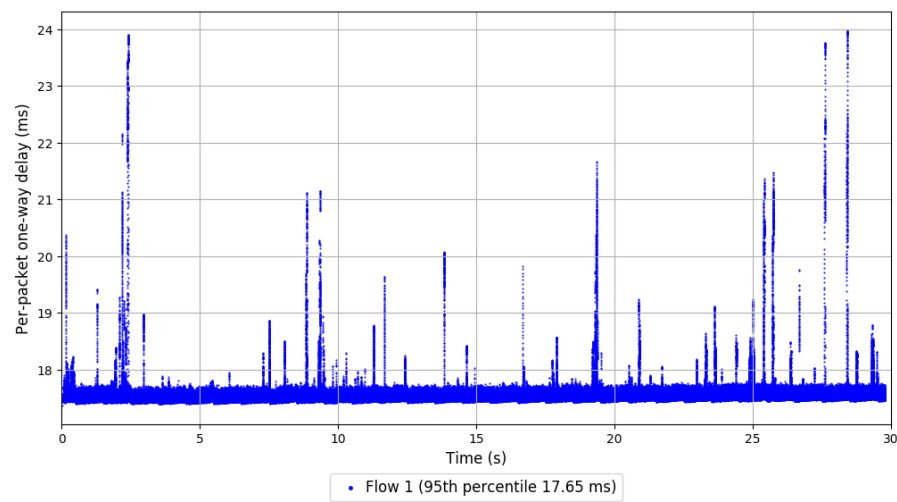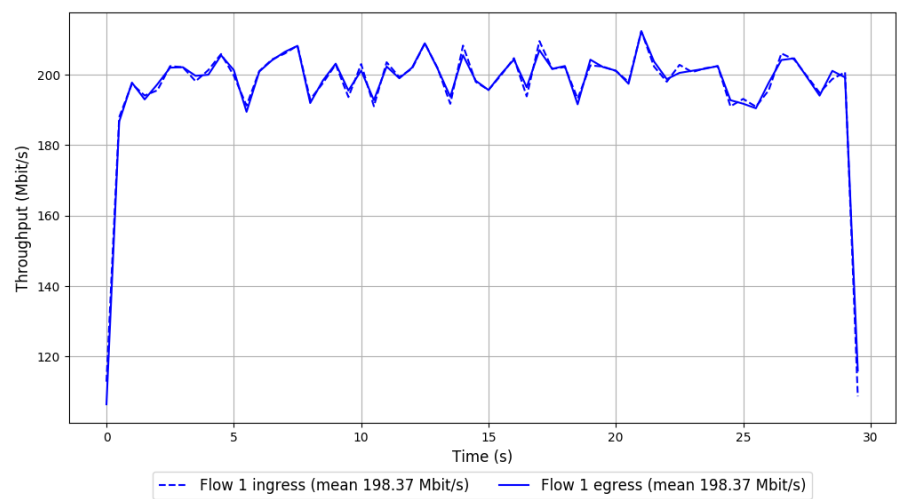Run 6: Report of Indigo-calib — Data Link

```
Run 7: Statistics of Indigo-calib

Start at: 2017-12-11 16:05:24
End at: 2017-12-11 16:05:54
Local clock offset: -6.323 ms
Remote clock offset: -0.819 ms


# Below is generated by plot.py at 2017-12-11 19:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.37 Mbit/s
95th percentile per-packet one-way delay: 17.650 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 198.37 Mbit/s
95th percentile per-packet one-way delay: 17.650 ms
Loss rate: 0.00%
```

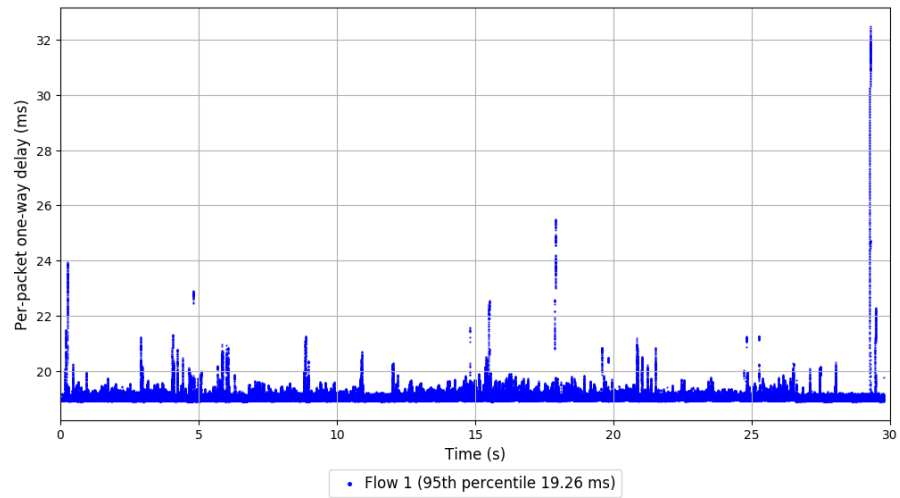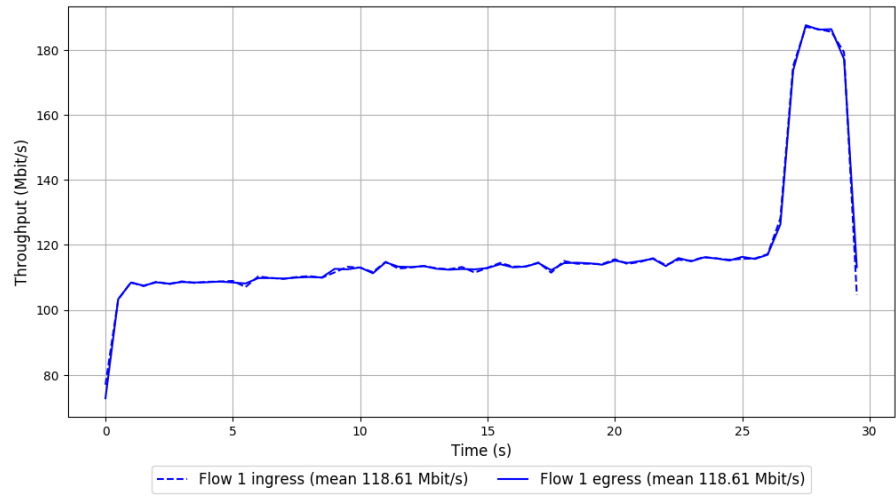Run 7: Report of Indigo-calib — Data Link

```
Run 8: Statistics of Indigo-calib

Start at: 2017-12-11 16:23:58
End at: 2017-12-11 16:24:28
Local clock offset: -4.757 ms
Remote clock offset: -0.677 ms


# Below is generated by plot.py at 2017-12-11 19:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.61 Mbit/s
95th percentile per-packet one-way delay: 19.258 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 118.61 Mbit/s
95th percentile per-packet one-way delay: 19.258 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 118.61 Mbit/s)   Flow 1 egress (mean 118.61 Mbit/s)
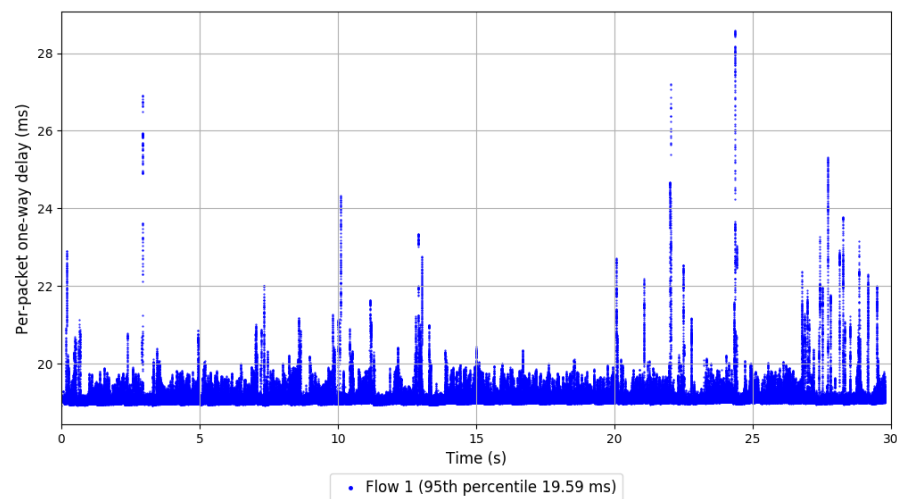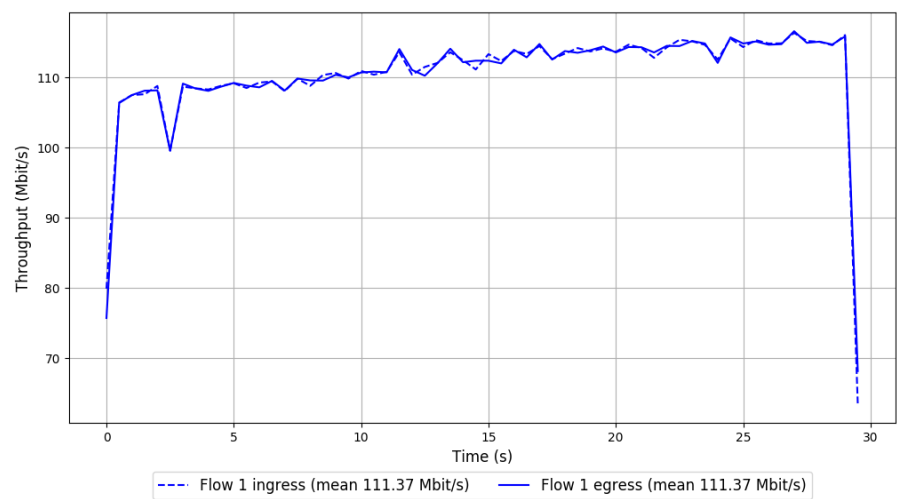

Flow 1 (95th percentile 19.26 ms)

```
Run 9: Statistics of Indigo-calib

Start at: 2017-12-11 16:42:46
End at: 2017-12-11 16:43:16
Local clock offset: -4.166 ms
Remote clock offset: -0.367 ms


# Below is generated by plot.py at 2017-12-11 19:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.37 Mbit/s
95th percentile per-packet one-way delay: 19.592 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 111.37 Mbit/s
95th percentile per-packet one-way delay: 19.592 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo-calib — Data Link

```
Run 10: Statistics of Indigo-calib

Start at: 2017-12-11 17:01:17
End at: 2017-12-11 17:01:47
Local clock offset: -2.771 ms
Remote clock offset: -0.668 ms


# Below is generated by plot.py at 2017-12-11 19:23:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 115.32 Mbit/s
95th percentile per-packet one-way delay: 19.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 115.32 Mbit/s
95th percentile per-packet one-way delay: 19.448 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo-calib — Data Link

Flow 1 ingress (mean 115.33 Mbit/s)   Flow 1 egress (mean 115.32 Mbit/s)

Flow 1 (95th percentile 19.45 ms)