Pantheon Report

Generated at 2017-12-01 07:00:19 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

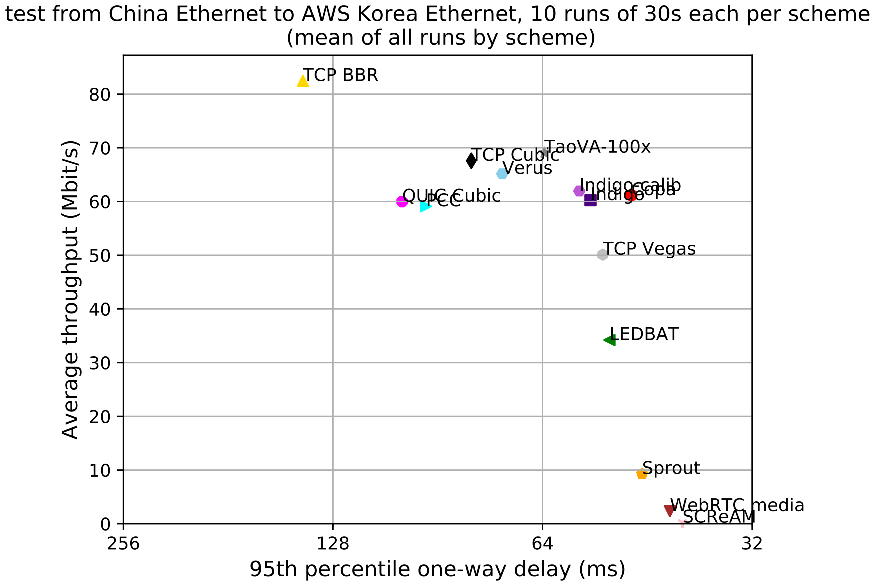
Each test lasted for 30 seconds running 1 flow.

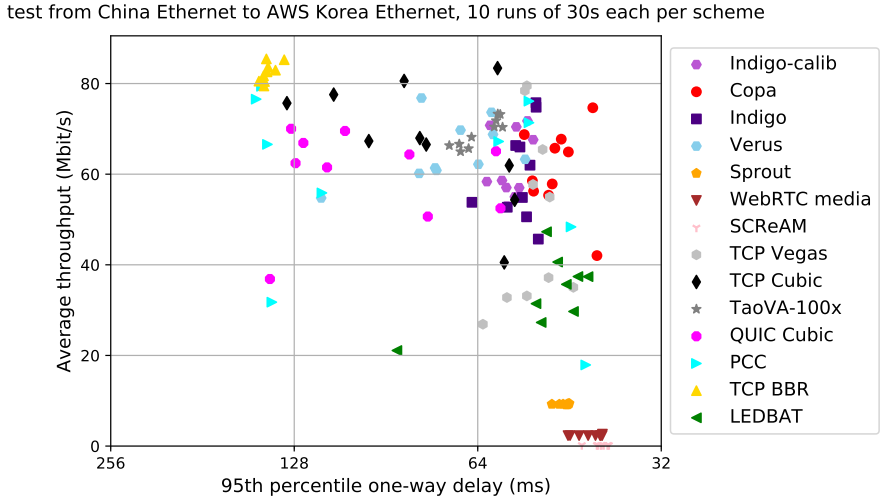
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `ntp.nict.jp` 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
```

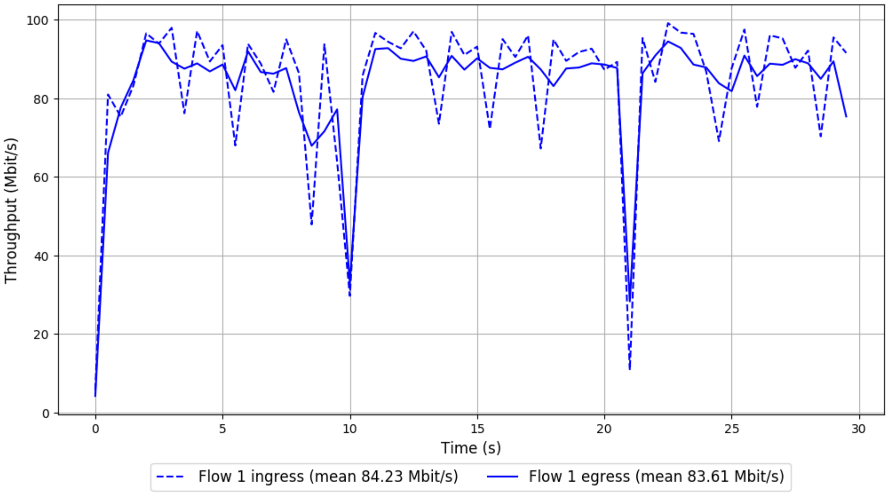

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)

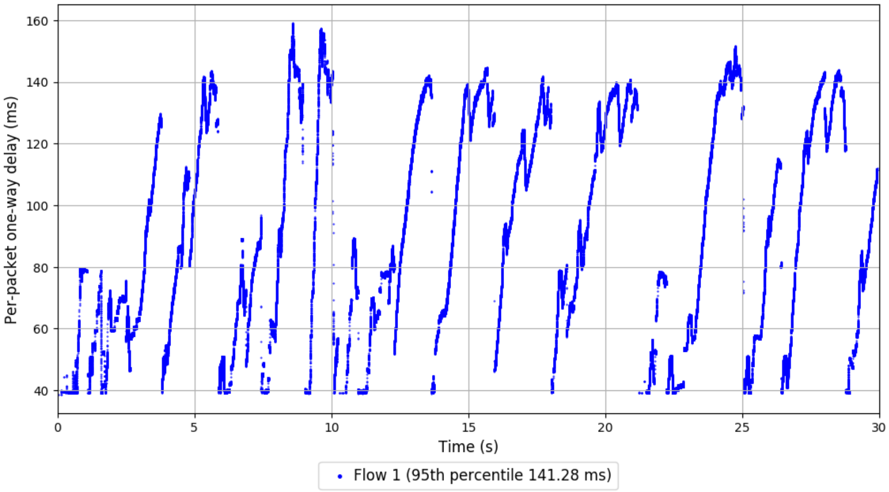

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	9	82.44	141.38	1.03
TCP Cubic	10	67.58	81.01	0.38
LEDBAT	9	34.21	51.30	0.47
PCC	10	59.11	94.10	0.84
QUIC Cubic	10	59.98	101.82	0.49
SCReAM	10	0.22	40.28	0.26
WebRTC media	9	2.35	42.00	0.38
Sprout	10	9.27	46.05	0.30
TaoVA-100x	10	69.10	63.62	1.42
TCP Vegas	10	50.11	52.43	0.26
Verus	10	65.16	73.14	0.47
Copa	10	61.18	47.71	0.37
Indigo	10	60.25	54.61	0.34
Indigo-calib	10	61.96	56.67	0.29

```
Run 1: Statistics of TCP BBR

Start at: 2017-12-01 01:08:57
End at: 2017-12-01 01:09:27
Local clock offset: -0.8 ms
Remote clock offset: -6.724 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.61 Mbit/s
95th percentile per-packet one-way delay: 141.282 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 83.61 Mbit/s
95th percentile per-packet one-way delay: 141.282 ms
Loss rate: 1.04%
```

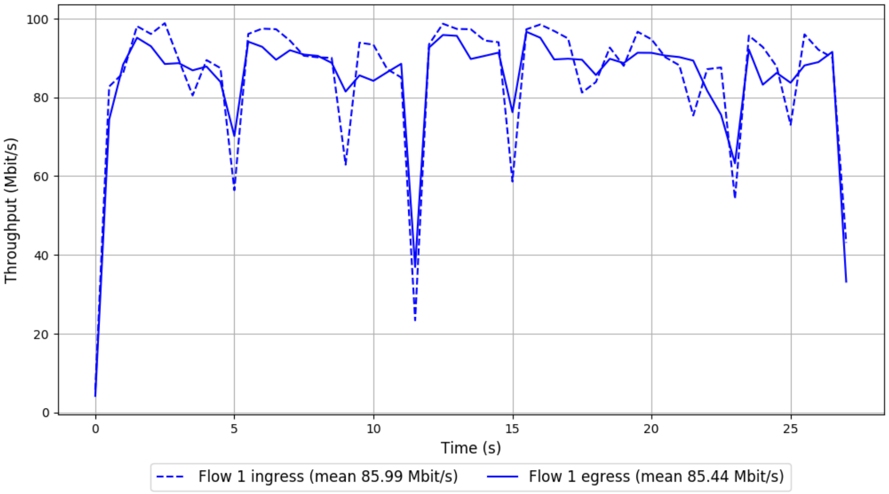
Run 1: Report of TCP BBR — Data Link

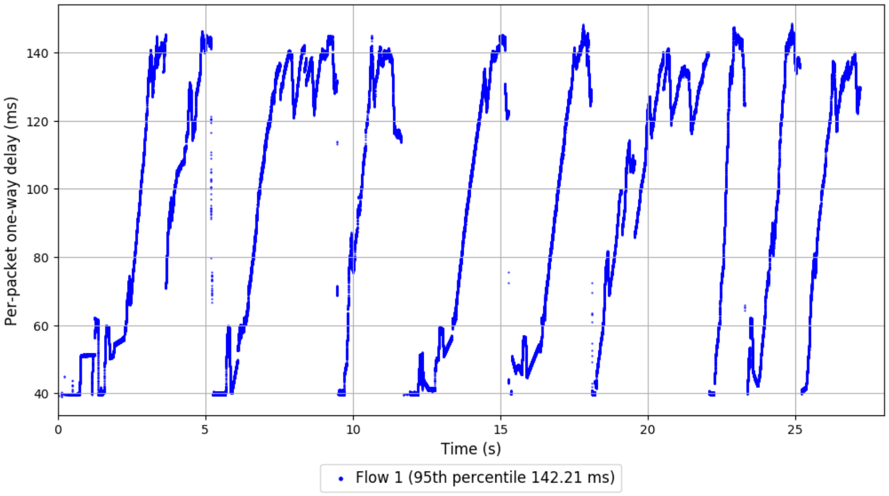




```
Run 2: Statistics of TCP BBR

Start at: 2017-12-01 01:25:38
End at: 2017-12-01 01:26:08
Local clock offset: -0.533 ms
Remote clock offset: -6.607 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.44 Mbit/s
95th percentile per-packet one-way delay: 142.206 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 85.44 Mbit/s
95th percentile per-packet one-way delay: 142.206 ms
Loss rate: 0.95%
```

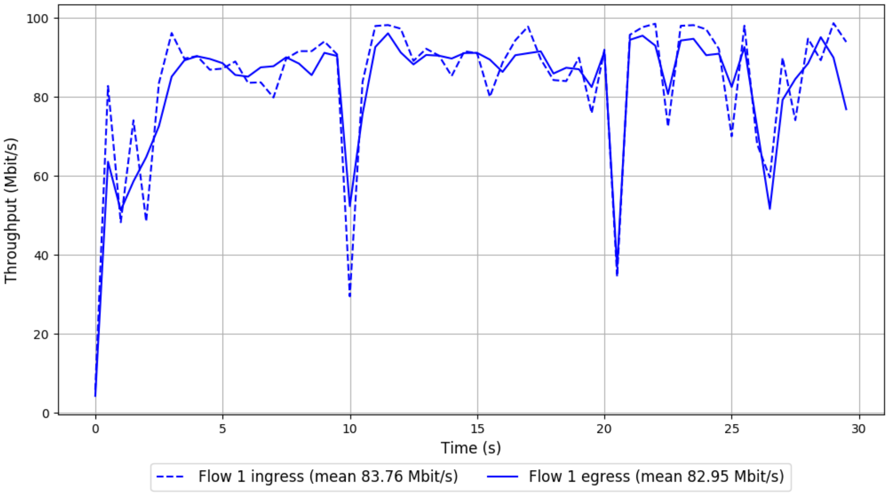
Run 2: Report of TCP BBR — Data Link

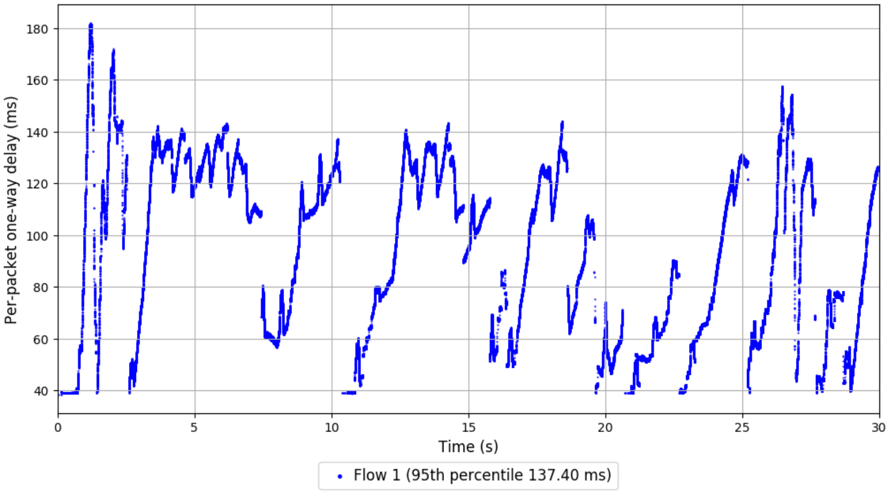




```
Run 3: Statistics of TCP BBR

Start at: 2017-12-01 01:42:30
End at: 2017-12-01 01:43:00
Local clock offset: -0.533 ms
Remote clock offset: -6.433 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.95 Mbit/s
95th percentile per-packet one-way delay: 137.397 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 82.95 Mbit/s
95th percentile per-packet one-way delay: 137.397 ms
Loss rate: 1.28%
```

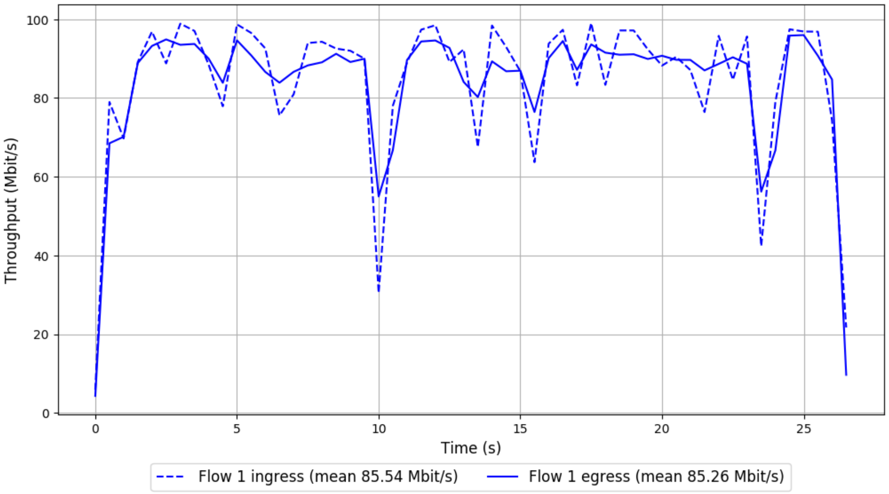
Run 3: Report of TCP BBR — Data Link

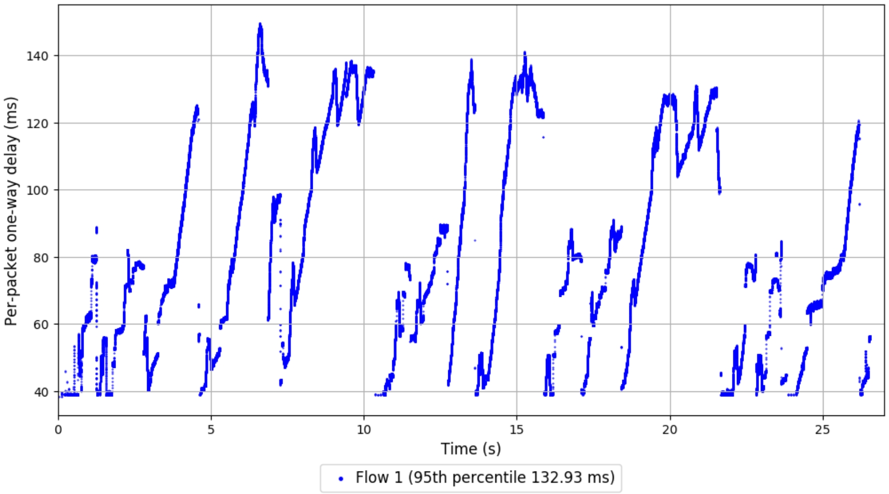




```
Run 4: Statistics of TCP BBR

Start at: 2017-12-01 01:59:12
End at: 2017-12-01 01:59:42
Local clock offset: -0.277 ms
Remote clock offset: -6.299 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.26 Mbit/s
95th percentile per-packet one-way delay: 132.933 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 85.26 Mbit/s
95th percentile per-packet one-way delay: 132.933 ms
Loss rate: 0.69%
```

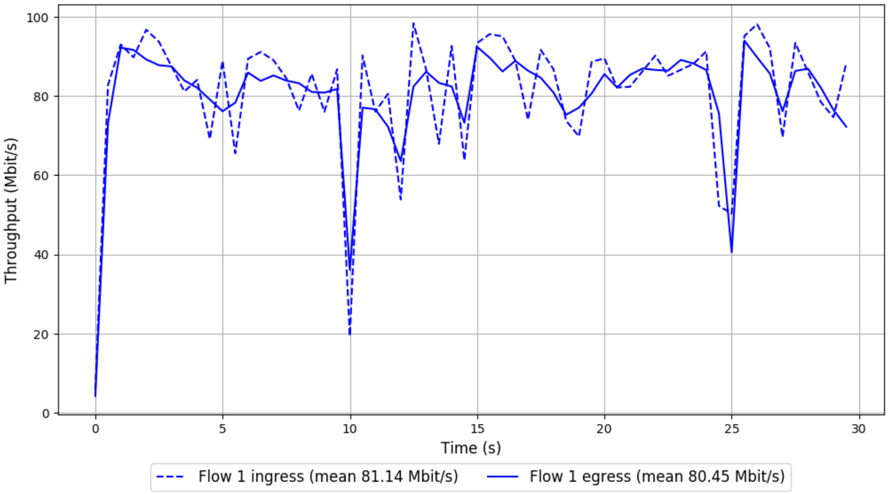
Run 4: Report of TCP BBR — Data Link

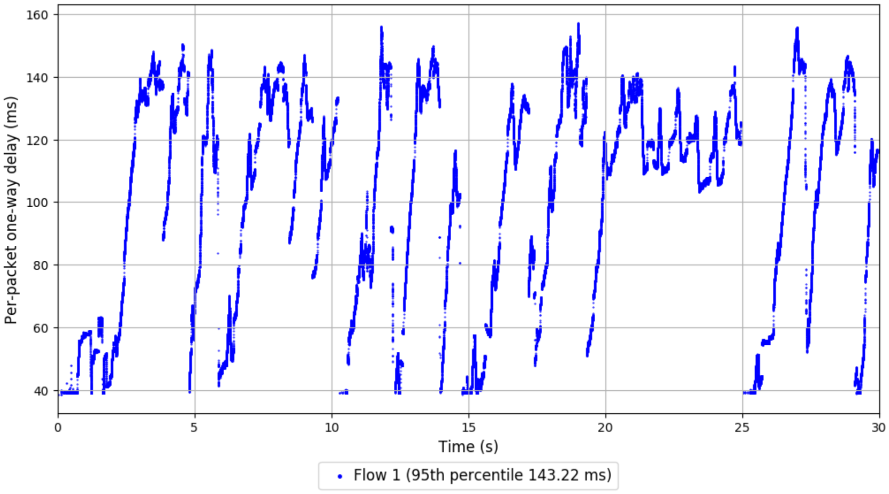




```
Run 5: Statistics of TCP BBR

Start at: 2017-12-01 02:16:08
End at: 2017-12-01 02:16:38
Local clock offset: -0.225 ms
Remote clock offset: -6.328 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.45 Mbit/s
95th percentile per-packet one-way delay: 143.221 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 80.45 Mbit/s
95th percentile per-packet one-way delay: 143.221 ms
Loss rate: 1.14%
```

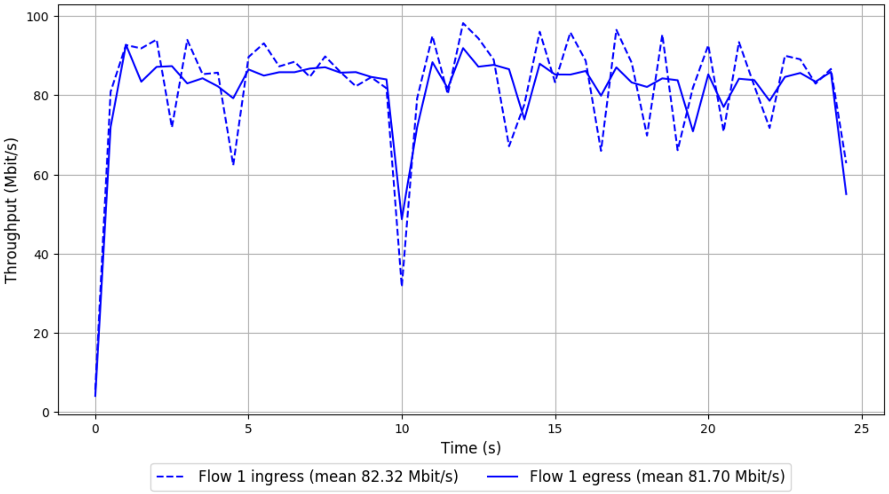
Run 5: Report of TCP BBR — Data Link

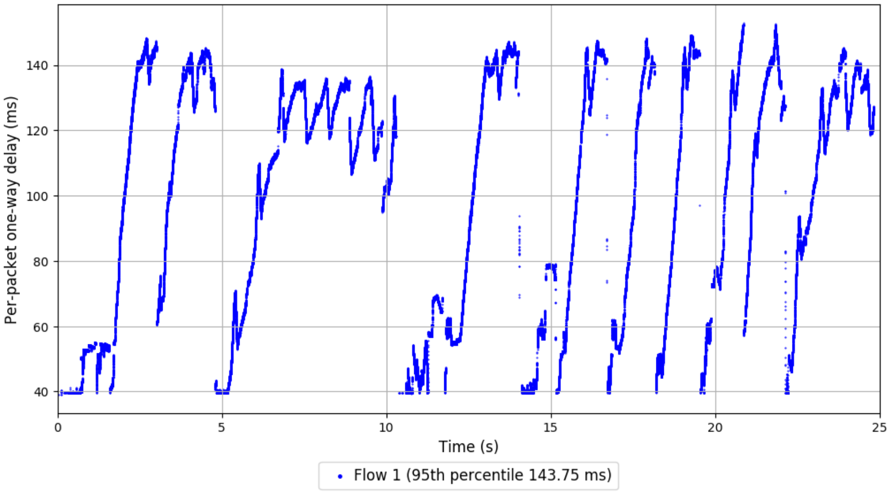




```
Run 6: Statistics of TCP BBR

Start at: 2017-12-01 02:32:52
End at: 2017-12-01 02:33:22
Local clock offset: -0.088 ms
Remote clock offset: -6.207 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.70 Mbit/s
95th percentile per-packet one-way delay: 143.745 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 81.70 Mbit/s
95th percentile per-packet one-way delay: 143.745 ms
Loss rate: 1.09%
```

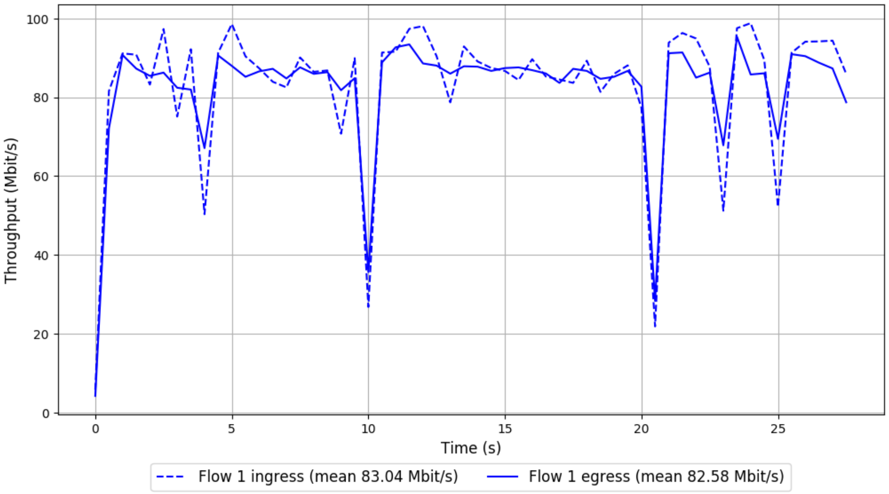
Run 6: Report of TCP BBR — Data Link

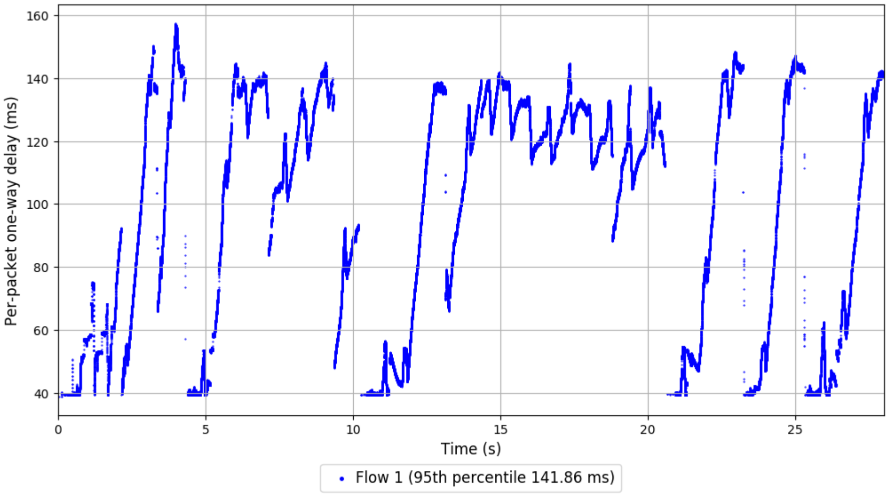




```
Run 7: Statistics of TCP BBR

Start at: 2017-12-01 02:49:38
End at: 2017-12-01 02:50:08
Local clock offset: -0.193 ms
Remote clock offset: -6.102 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.58 Mbit/s
95th percentile per-packet one-way delay: 141.861 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 82.58 Mbit/s
95th percentile per-packet one-way delay: 141.861 ms
Loss rate: 0.86%
```

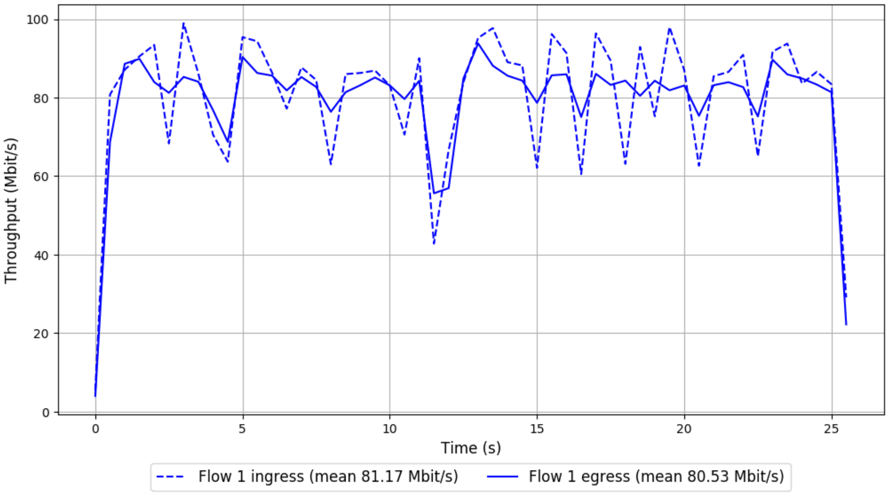
Run 7: Report of TCP BBR — Data Link

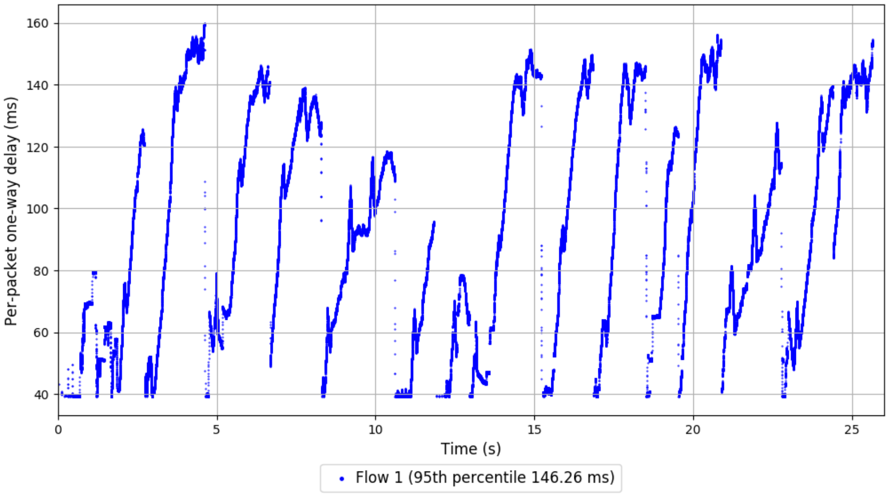




```
Run 8: Statistics of TCP BBR

Start at: 2017-12-01 03:06:26
End at: 2017-12-01 03:06:56
Local clock offset: -0.074 ms
Remote clock offset: -6.174 ms

# Below is generated by plot.py at 2017-12-01 06:46:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.53 Mbit/s
95th percentile per-packet one-way delay: 146.258 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 80.53 Mbit/s
95th percentile per-packet one-way delay: 146.258 ms
Loss rate: 1.17%
```

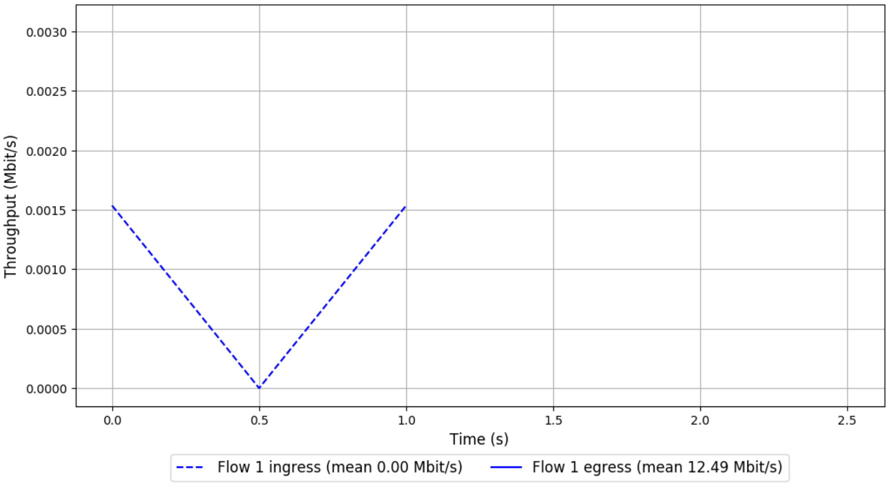
Run 8: Report of TCP BBR — Data Link

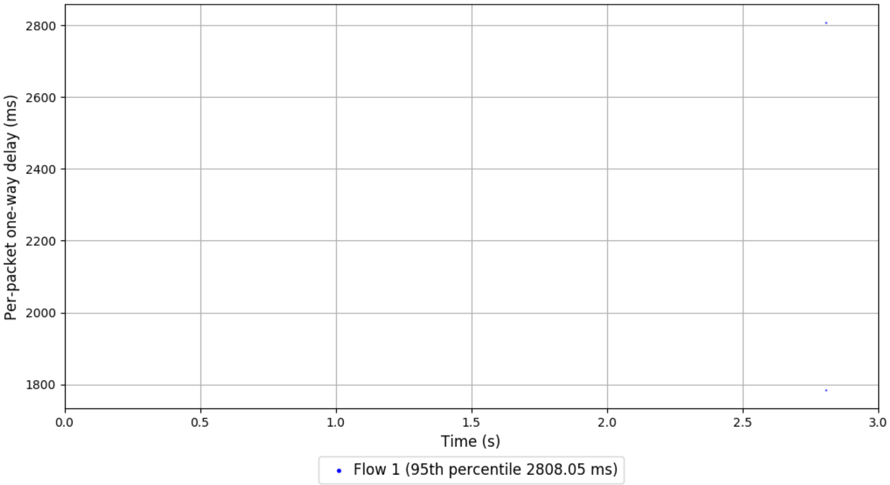




```
Run 9: Statistics of TCP BBR

Start at: 2017-12-01 03:23:06
End at: 2017-12-01 03:23:36
Local clock offset: -0.275 ms
Remote clock offset: -6.368 ms
```

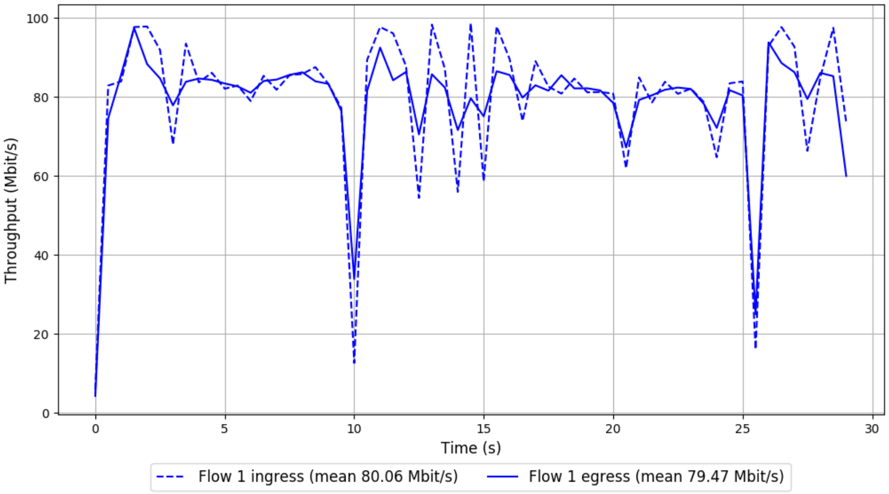
Run 9: Report of TCP BBR — Data Link

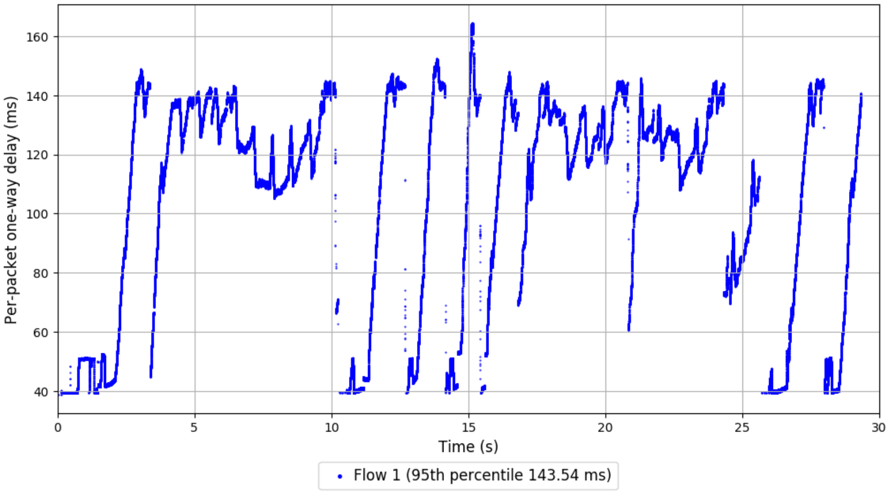




```
Run 10: Statistics of TCP BBR

Start at: 2017-12-01 03:39:50
End at: 2017-12-01 03:40:20
Local clock offset: -0.146 ms
Remote clock offset: -6.274 ms

# Below is generated by plot.py at 2017-12-01 06:47:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 143.536 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 143.536 ms
Loss rate: 1.03%
```

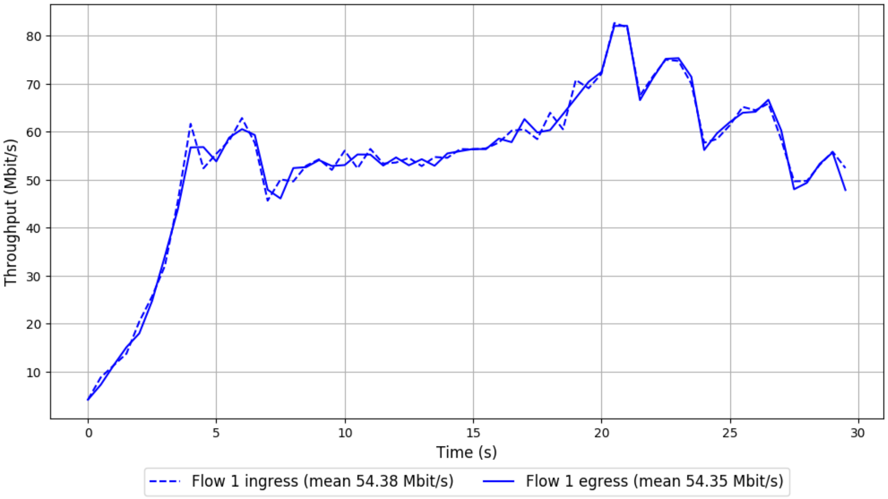
Run 10: Report of TCP BBR — Data Link

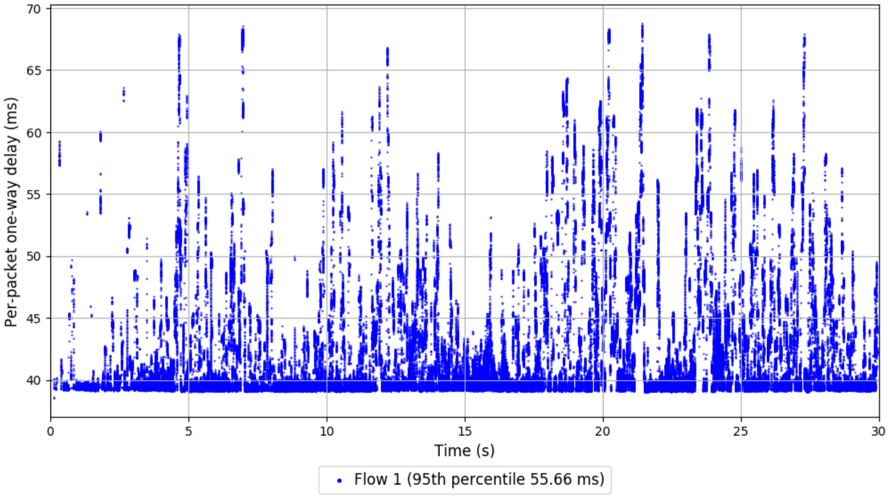




```
Run 1: Statistics of TCP Cubic

Start at: 2017-12-01 01:21:58
End at: 2017-12-01 01:22:28
Local clock offset: -0.678 ms
Remote clock offset: -6.62 ms

# Below is generated by plot.py at 2017-12-01 06:47:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 55.664 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 55.664 ms
Loss rate: 0.34%
```

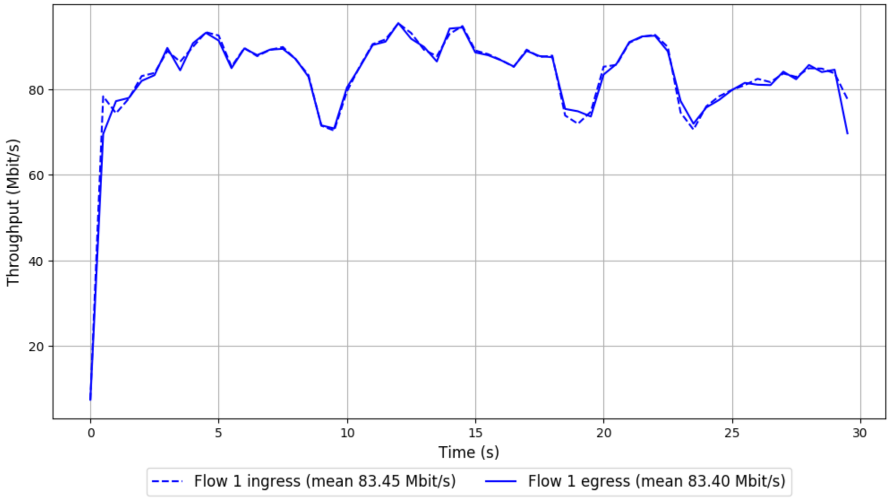
Run 1: Report of TCP Cubic — Data Link

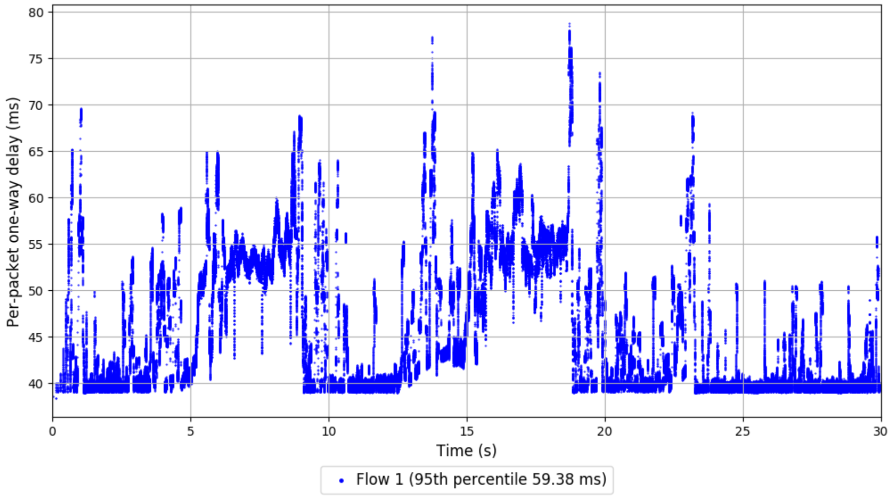




```
Run 2: Statistics of TCP Cubic

Start at: 2017-12-01 01:38:40
End at: 2017-12-01 01:39:10
Local clock offset: -0.586 ms
Remote clock offset: -6.507 ms

# Below is generated by plot.py at 2017-12-01 06:47:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.40 Mbit/s
95th percentile per-packet one-way delay: 59.382 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 83.40 Mbit/s
95th percentile per-packet one-way delay: 59.382 ms
Loss rate: 0.34%
```

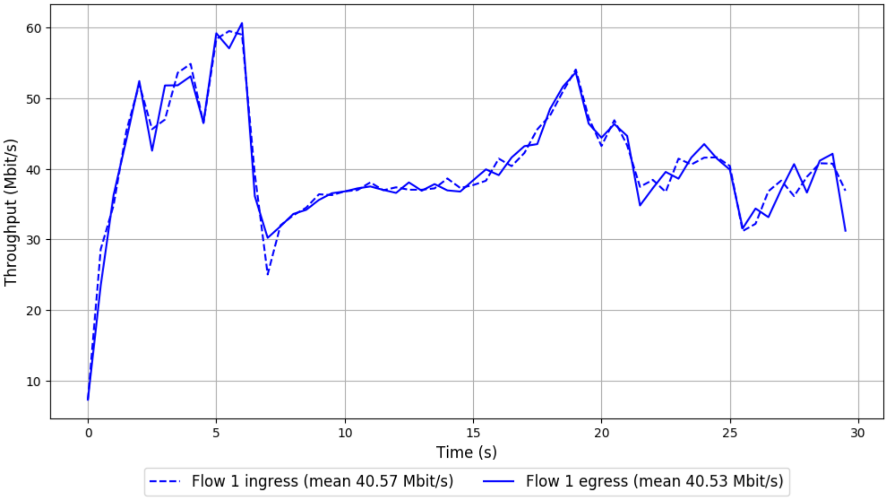
Run 2: Report of TCP Cubic — Data Link

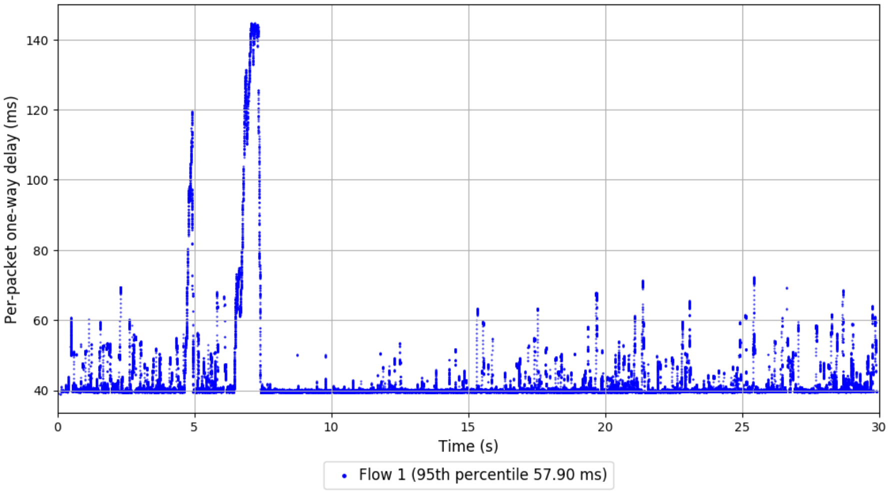




```
Run 3: Statistics of TCP Cubic

Start at: 2017-12-01 01:55:31
End at: 2017-12-01 01:56:01
Local clock offset: -0.316 ms
Remote clock offset: -6.353 ms

# Below is generated by plot.py at 2017-12-01 06:47:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 57.902 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 57.902 ms
Loss rate: 0.41%
```

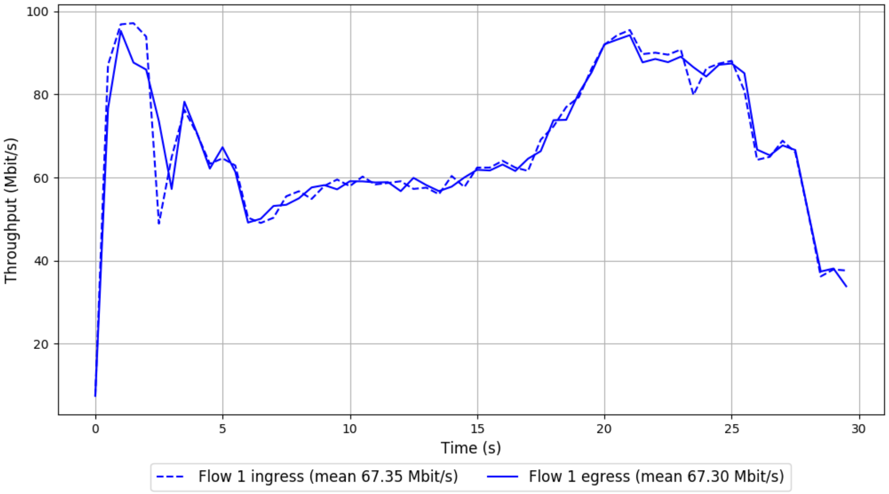
Run 3: Report of TCP Cubic — Data Link

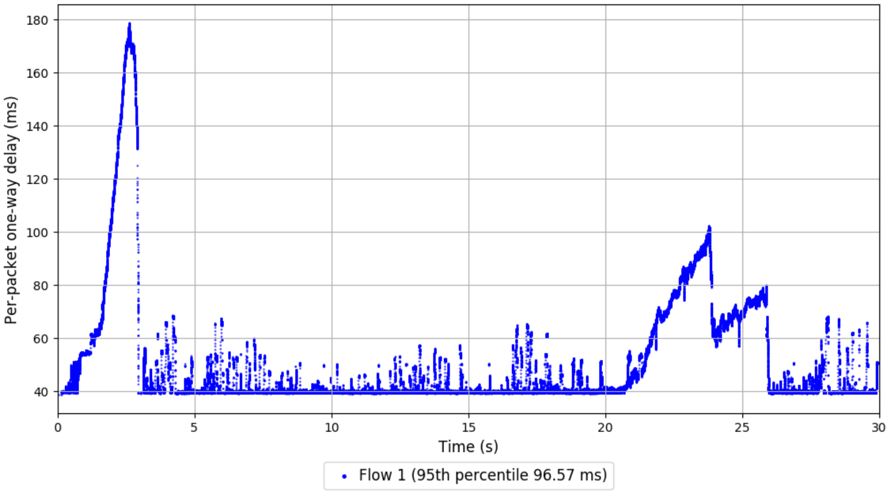




```
Run 4: Statistics of TCP Cubic

Start at: 2017-12-01 02:12:25
End at: 2017-12-01 02:12:55
Local clock offset: -0.052 ms
Remote clock offset: -6.291 ms

# Below is generated by plot.py at 2017-12-01 06:47:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.30 Mbit/s
95th percentile per-packet one-way delay: 96.573 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 67.30 Mbit/s
95th percentile per-packet one-way delay: 96.573 ms
Loss rate: 0.35%
```

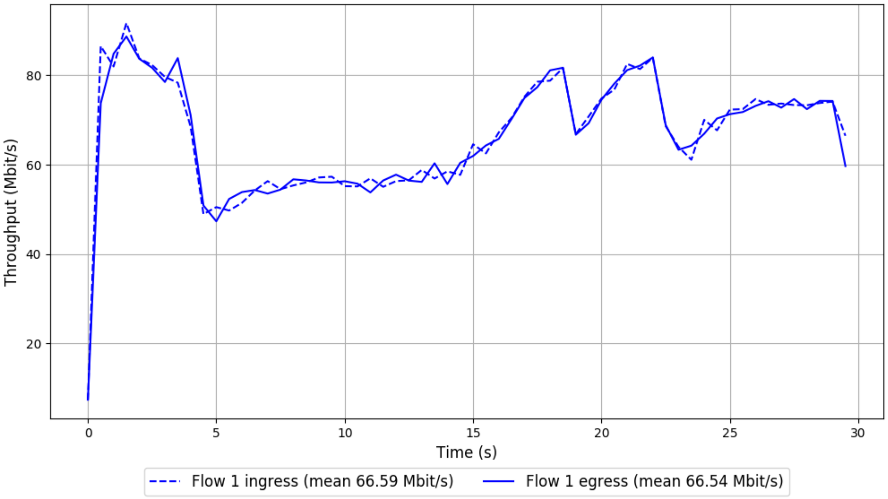
Run 4: Report of TCP Cubic — Data Link

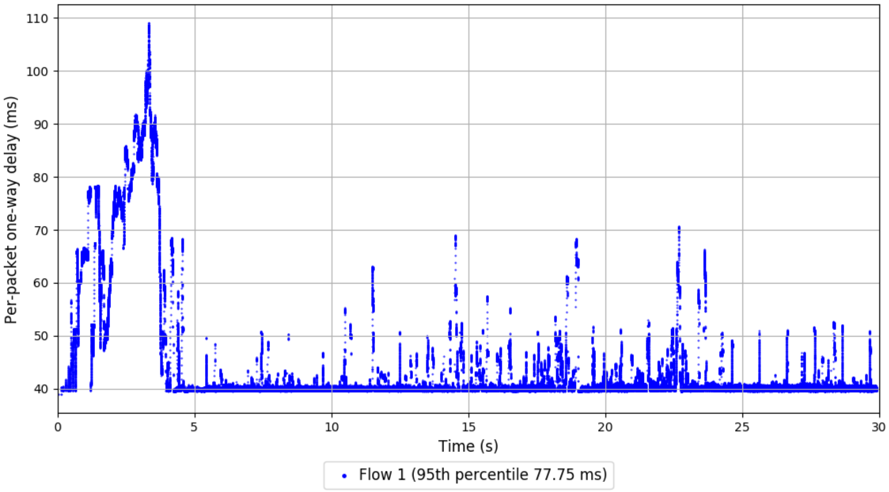




```
Run 5: Statistics of TCP Cubic

Start at: 2017-12-01 02:29:12
End at: 2017-12-01 02:29:42
Local clock offset: -0.062 ms
Remote clock offset: -6.245 ms

# Below is generated by plot.py at 2017-12-01 06:47:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.54 Mbit/s
95th percentile per-packet one-way delay: 77.747 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 66.54 Mbit/s
95th percentile per-packet one-way delay: 77.747 ms
Loss rate: 0.35%
```

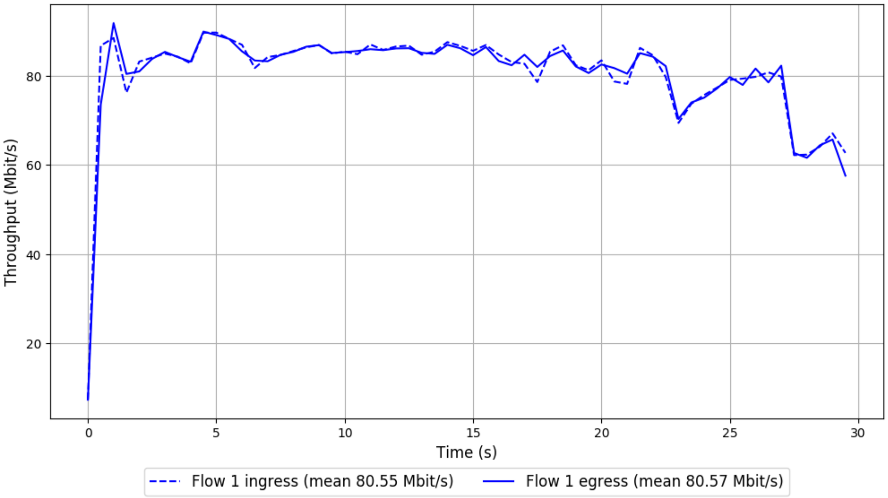
Run 5: Report of TCP Cubic — Data Link

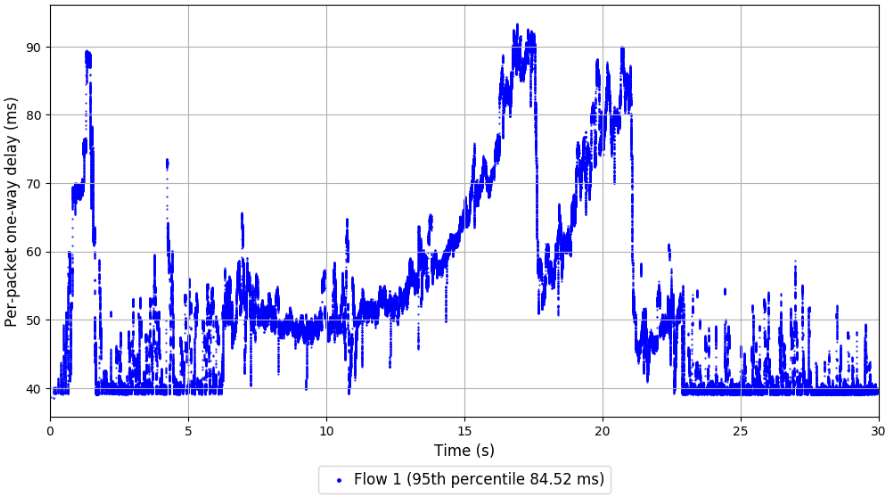




```
Run 6: Statistics of TCP Cubic

Start at: 2017-12-01 02:45:57
End at: 2017-12-01 02:46:27
Local clock offset: -0.055 ms
Remote clock offset: -6.079 ms

# Below is generated by plot.py at 2017-12-01 06:47:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.57 Mbit/s
95th percentile per-packet one-way delay: 84.517 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 80.57 Mbit/s
95th percentile per-packet one-way delay: 84.517 ms
Loss rate: 0.25%
```

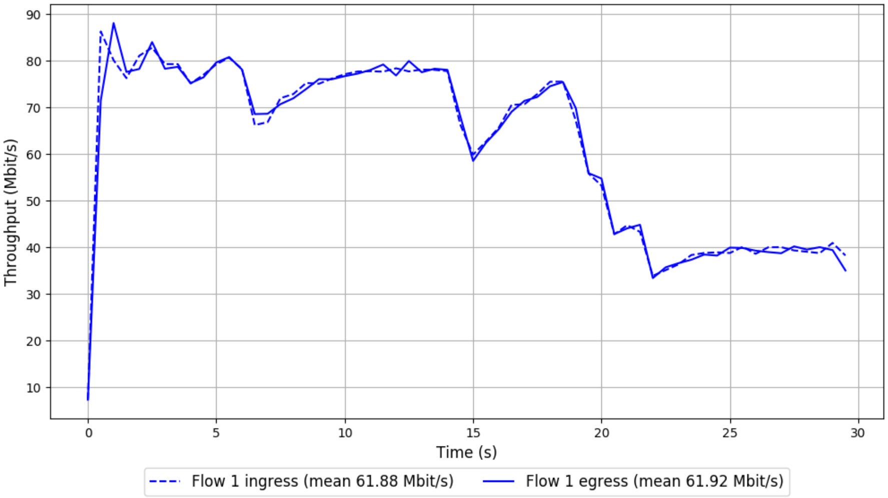
Run 6: Report of TCP Cubic — Data Link

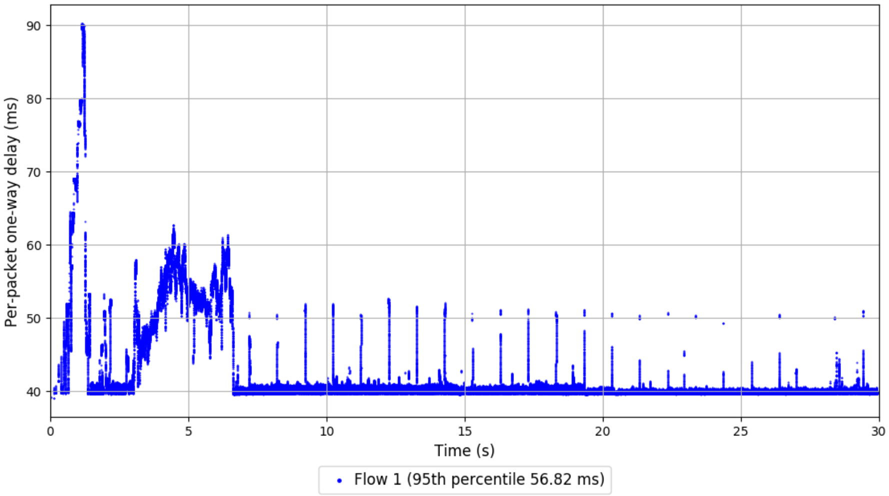




```
Run 7: Statistics of TCP Cubic

Start at: 2017-12-01 03:02:45
End at: 2017-12-01 03:03:15
Local clock offset: 0.068 ms
Remote clock offset: -6.143 ms

# Below is generated by plot.py at 2017-12-01 06:47:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.92 Mbit/s
95th percentile per-packet one-way delay: 56.821 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 61.92 Mbit/s
95th percentile per-packet one-way delay: 56.821 ms
Loss rate: 0.21%
```

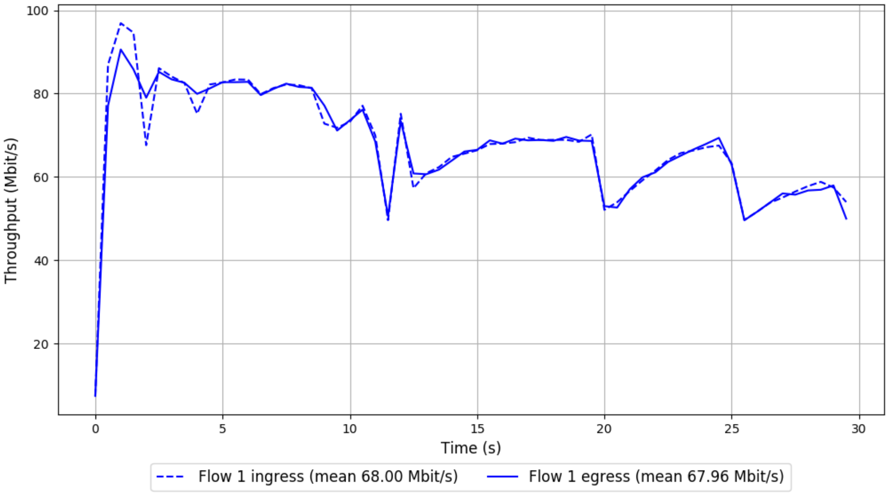
Run 7: Report of TCP Cubic — Data Link

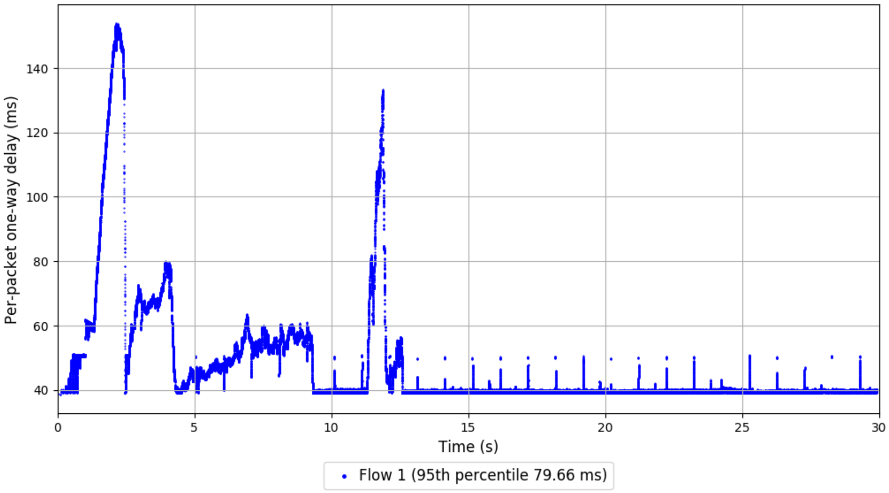




```
Run 8: Statistics of TCP Cubic

Start at: 2017-12-01 03:19:26
End at: 2017-12-01 03:19:56
Local clock offset: -0.295 ms
Remote clock offset: -6.367 ms

# Below is generated by plot.py at 2017-12-01 06:47:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.96 Mbit/s
95th percentile per-packet one-way delay: 79.656 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 67.96 Mbit/s
95th percentile per-packet one-way delay: 79.656 ms
Loss rate: 0.34%
```

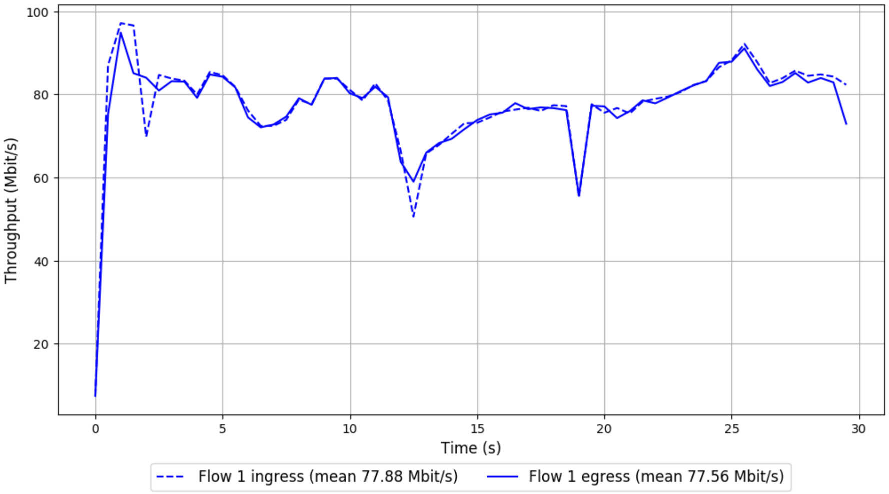
Run 8: Report of TCP Cubic — Data Link

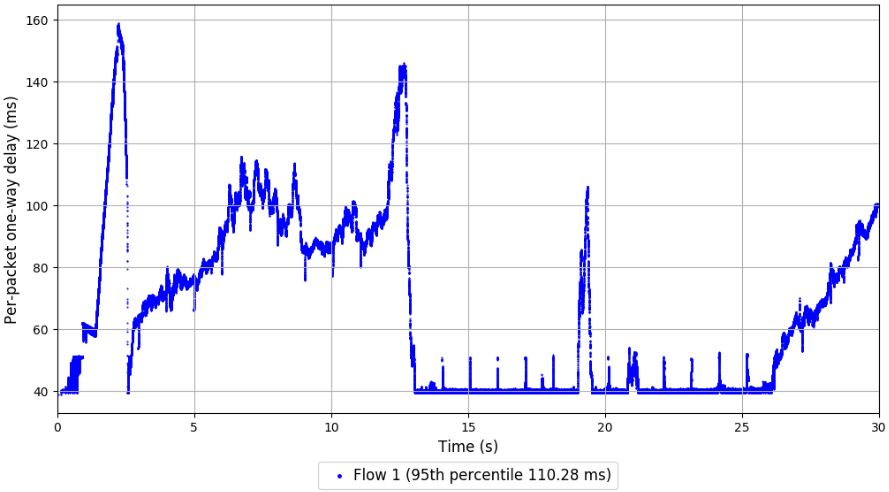




```
Run 9: Statistics of TCP Cubic

Start at: 2017-12-01 03:36:10
End at: 2017-12-01 03:36:40
Local clock offset: -0.106 ms
Remote clock offset: -6.348 ms

# Below is generated by plot.py at 2017-12-01 06:47:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 110.280 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 110.280 ms
Loss rate: 0.69%
```

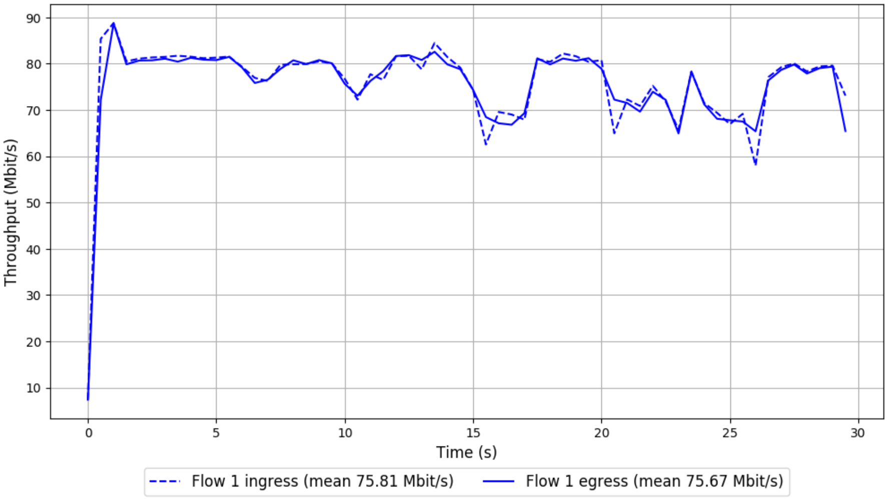
Run 9: Report of TCP Cubic — Data Link

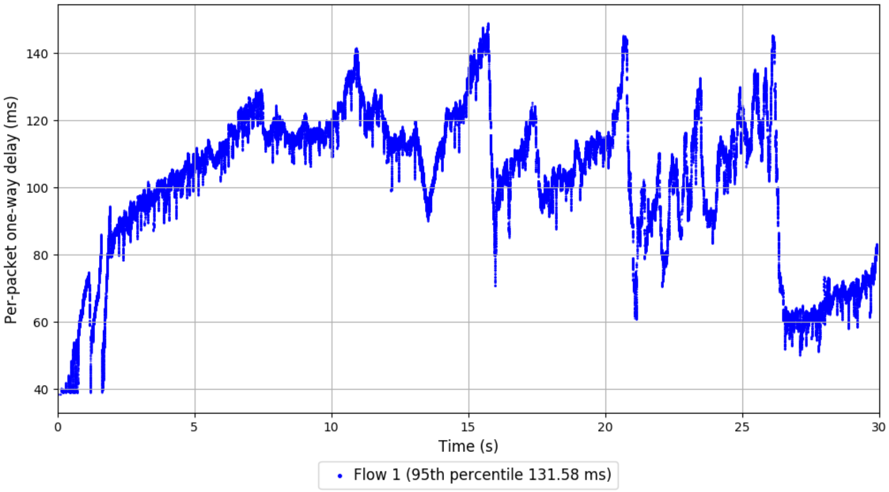




```
Run 10: Statistics of TCP Cubic

Start at: 2017-12-01 03:53:02
End at: 2017-12-01 03:53:32
Local clock offset: -0.303 ms
Remote clock offset: -6.28 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.67 Mbit/s
95th percentile per-packet one-way delay: 131.580 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 75.67 Mbit/s
95th percentile per-packet one-way delay: 131.580 ms
Loss rate: 0.49%
```

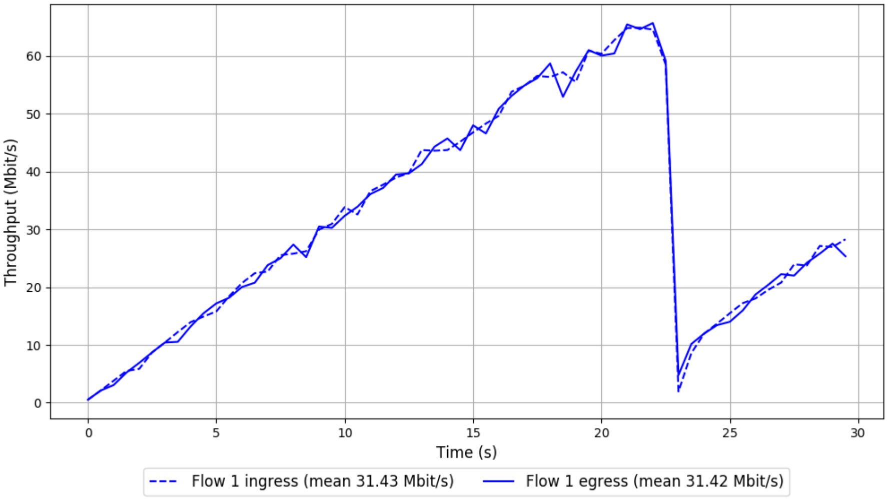
Run 10: Report of TCP Cubic — Data Link

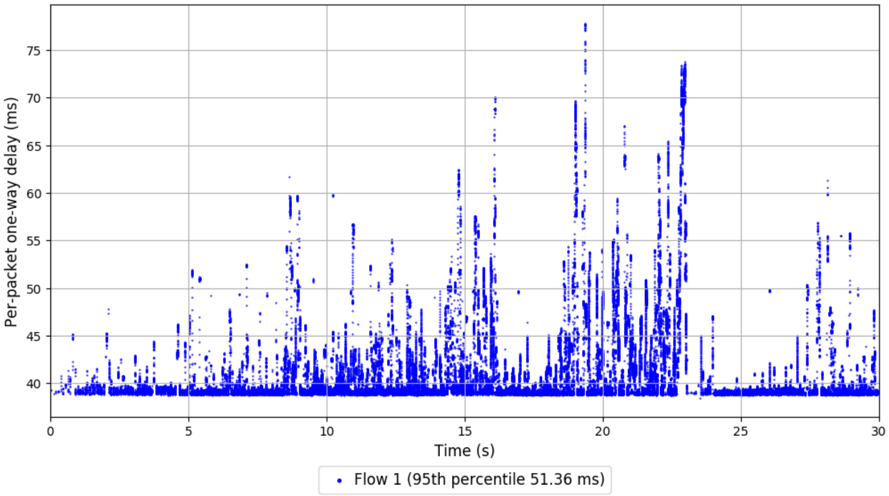




```
Run 1: Statistics of LEDBAT

Start at: 2017-12-01 01:17:11
End at: 2017-12-01 01:17:41
Local clock offset: -0.594 ms
Remote clock offset: -6.669 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 51.362 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 51.362 ms
Loss rate: 0.30%
```

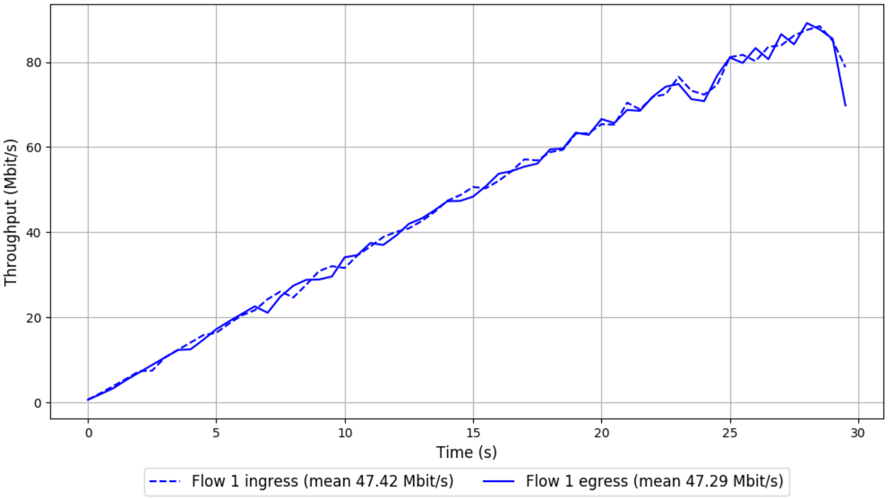
Run 1: Report of LEDBAT — Data Link

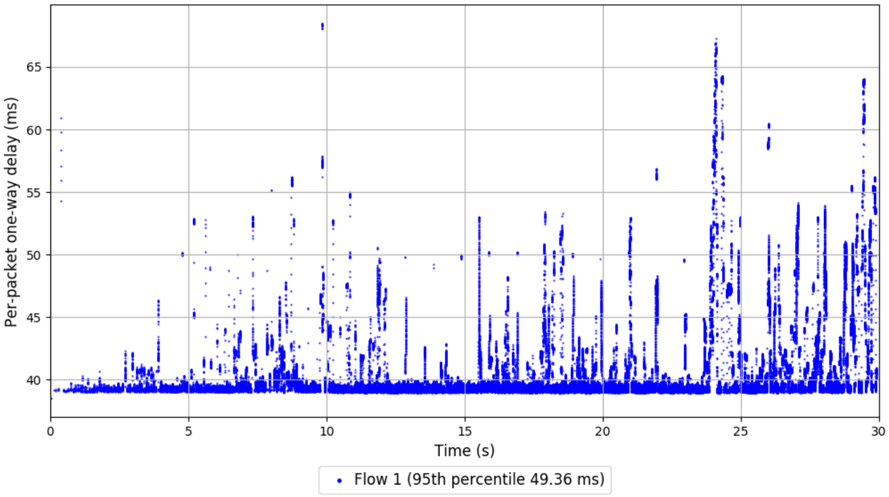




```
Run 2: Statistics of LEDBAT

Start at: 2017-12-01 01:33:52
End at: 2017-12-01 01:34:22
Local clock offset: -0.386 ms
Remote clock offset: -6.538 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 49.358 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 49.358 ms
Loss rate: 0.56%
```

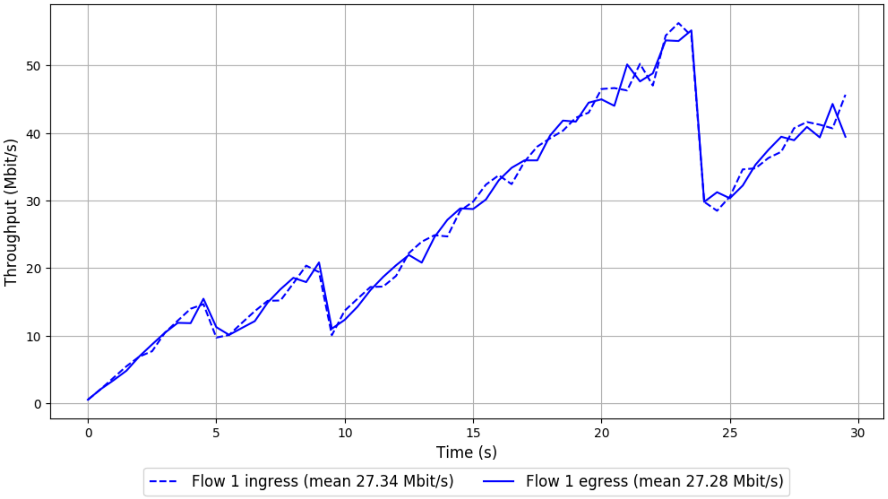
Run 2: Report of LEDBAT — Data Link

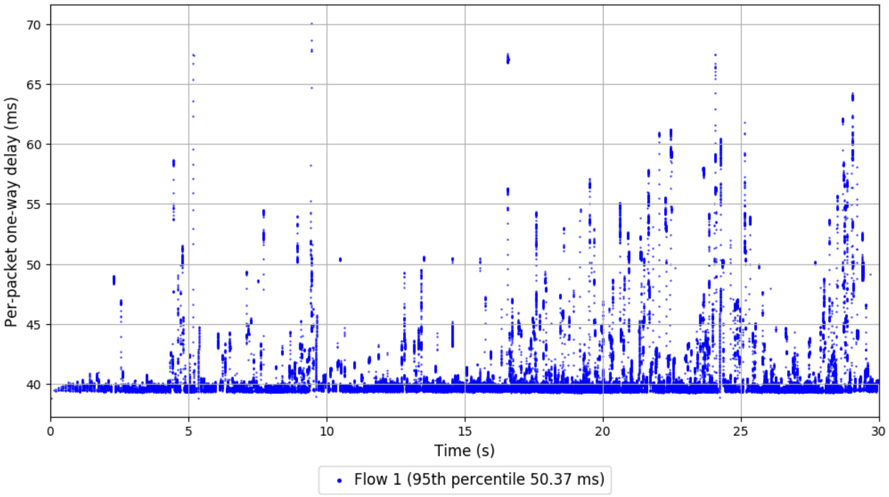




```
Run 3: Statistics of LEDBAT

Start at: 2017-12-01 01:50:44
End at: 2017-12-01 01:51:14
Local clock offset: -0.495 ms
Remote clock offset: -6.387 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.28 Mbit/s
95th percentile per-packet one-way delay: 50.367 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 27.28 Mbit/s
95th percentile per-packet one-way delay: 50.367 ms
Loss rate: 0.50%
```

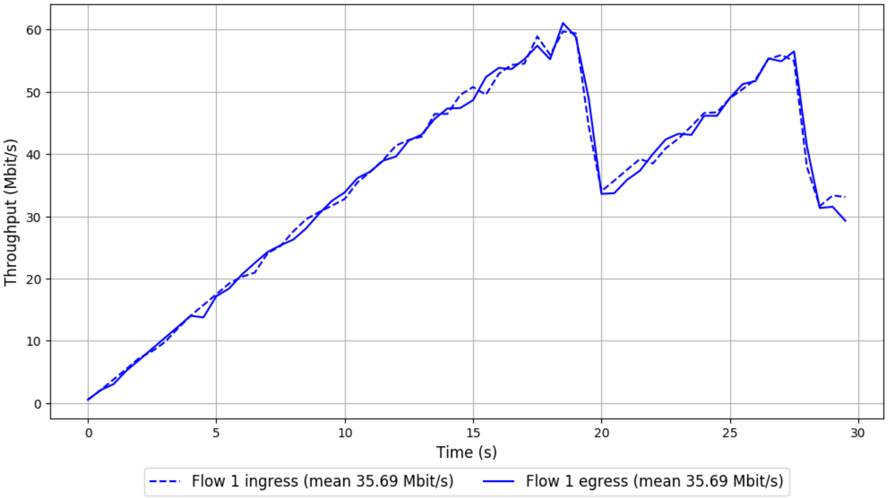
Run 3: Report of LEDBAT — Data Link

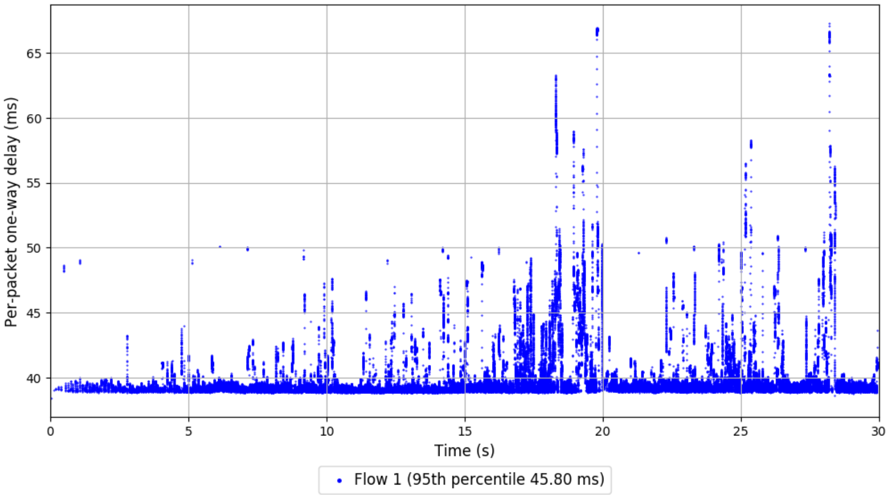




```
Run 4: Statistics of LEDBAT

Start at: 2017-12-01 02:07:34
End at: 2017-12-01 02:08:04
Local clock offset: -0.171 ms
Remote clock offset: -6.308 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 45.802 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 45.802 ms
Loss rate: 0.29%
```

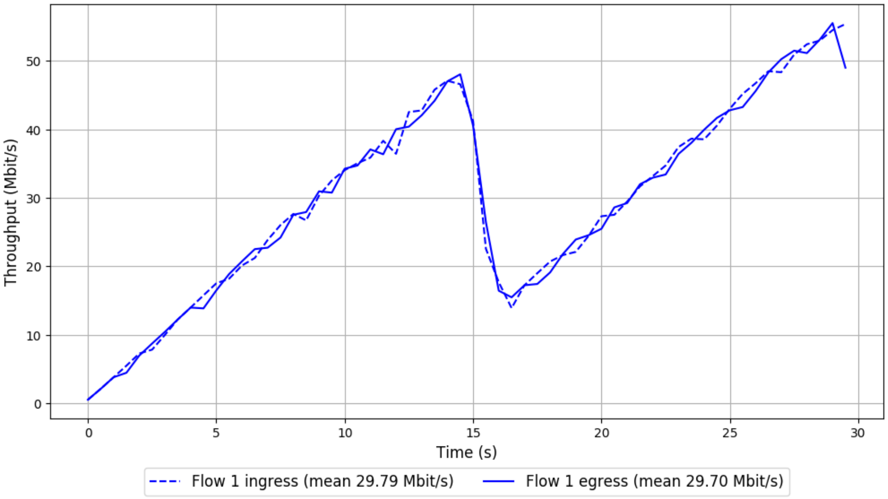
Run 4: Report of LEDBAT — Data Link

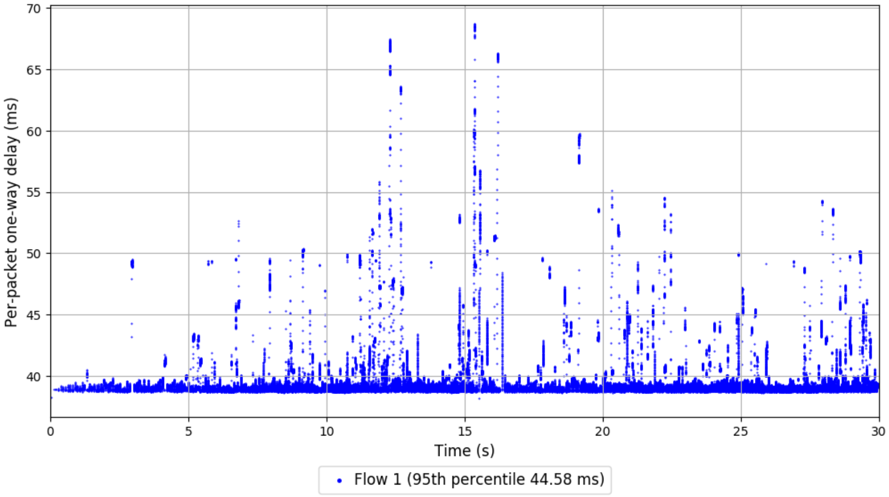




```
Run 5: Statistics of LEDBAT

Start at: 2017-12-01 02:24:26
End at: 2017-12-01 02:24:56
Local clock offset: -0.238 ms
Remote clock offset: -6.263 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 44.578 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 44.578 ms
Loss rate: 0.56%
```

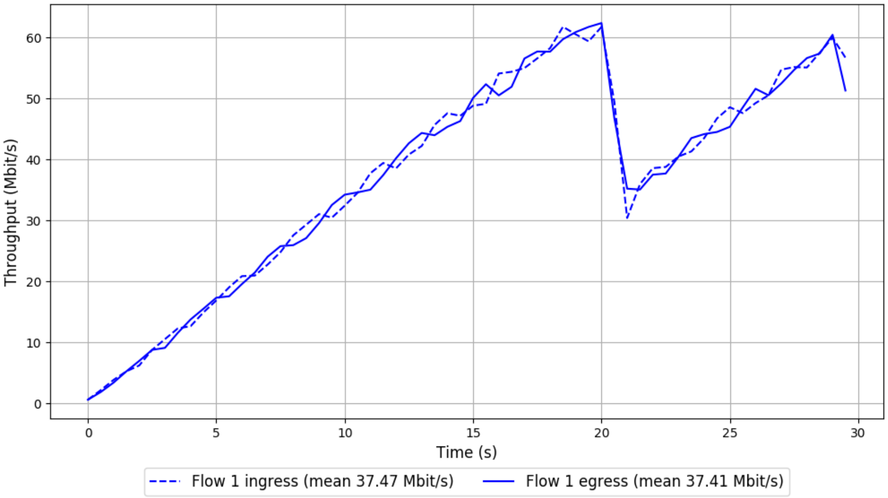
Run 5: Report of LEDBAT — Data Link

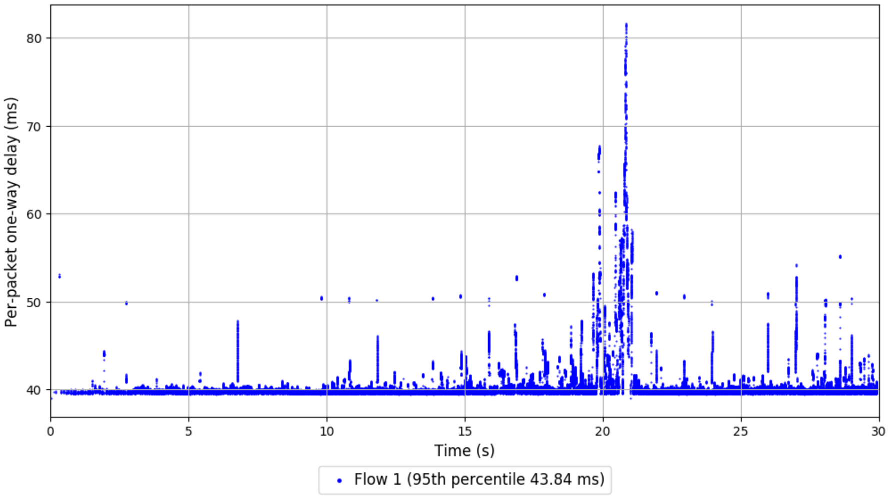




```
Run 6: Statistics of LEDBAT

Start at: 2017-12-01 02:41:07
End at: 2017-12-01 02:41:37
Local clock offset: -0.056 ms
Remote clock offset: -6.152 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.41 Mbit/s
95th percentile per-packet one-way delay: 43.838 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 37.41 Mbit/s
95th percentile per-packet one-way delay: 43.838 ms
Loss rate: 0.43%
```

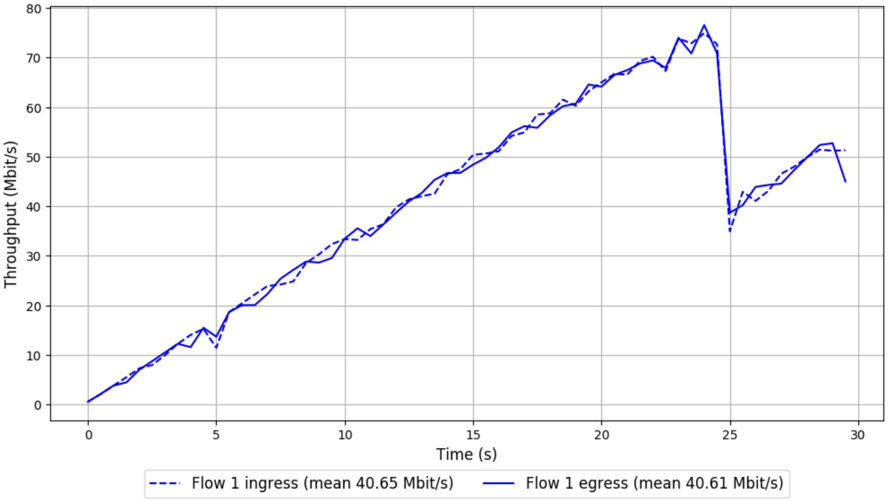
Run 6: Report of LEDBAT — Data Link

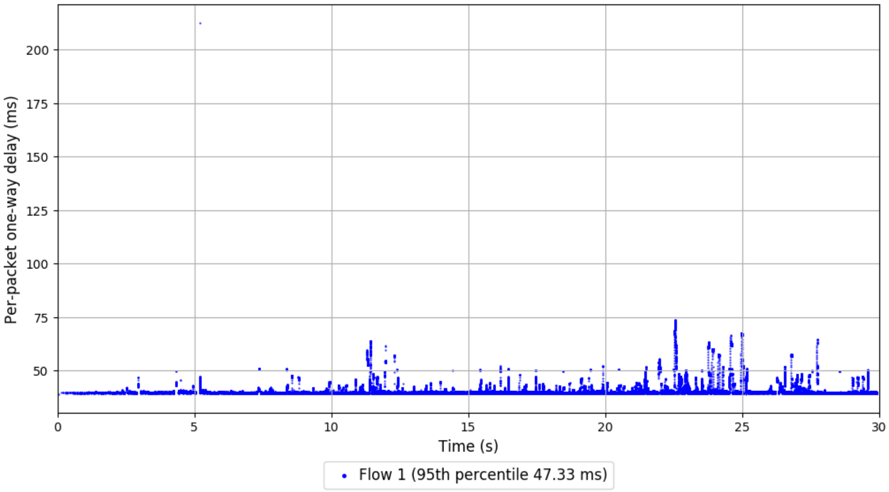




```
Run 7: Statistics of LEDBAT

Start at: 2017-12-01 02:57:56
End at: 2017-12-01 02:58:26
Local clock offset: 0.085 ms
Remote clock offset: -6.153 ms

# Below is generated by plot.py at 2017-12-01 06:48:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 47.331 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 47.331 ms
Loss rate: 0.39%
```

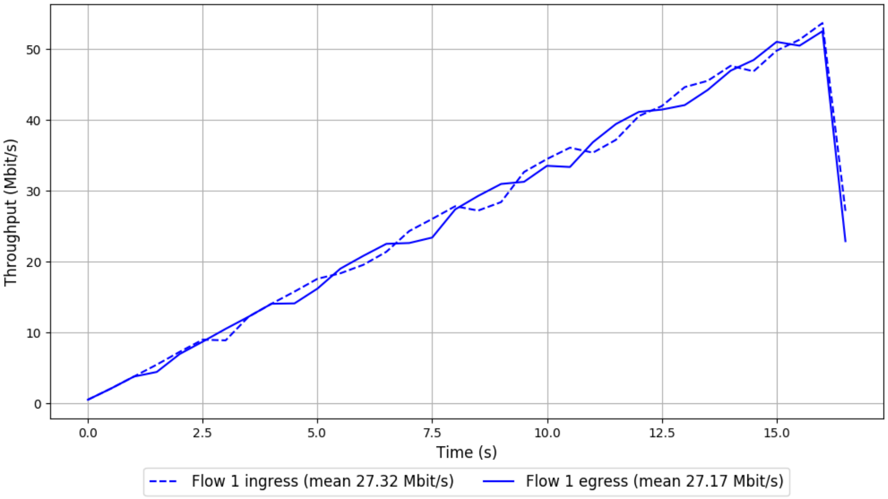
Run 7: Report of LEDBAT — Data Link

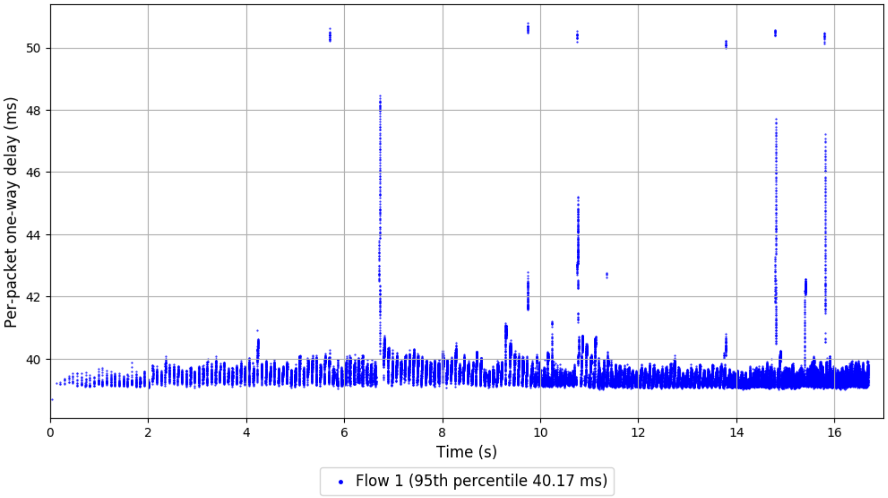




```
Run 8: Statistics of LEDBAT

Start at: 2017-12-01 03:14:39
End at: 2017-12-01 03:15:09
Local clock offset: -0.113 ms
Remote clock offset: -6.292 ms
```

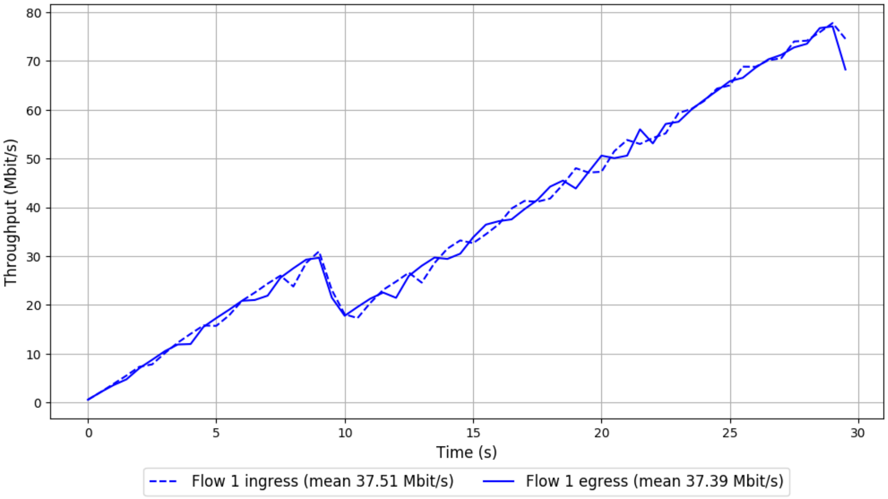
Run 8: Report of LEDBAT — Data Link

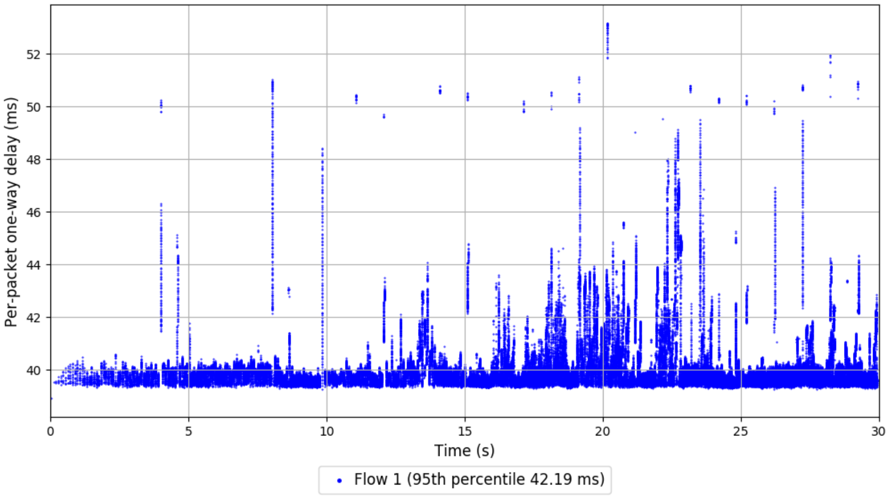




```
Run 9: Statistics of LEDBAT

Start at: 2017-12-01 03:31:20
End at: 2017-12-01 03:31:50
Local clock offset: -0.116 ms
Remote clock offset: -6.364 ms

# Below is generated by plot.py at 2017-12-01 06:48:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 42.193 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 42.193 ms
Loss rate: 0.61%
```

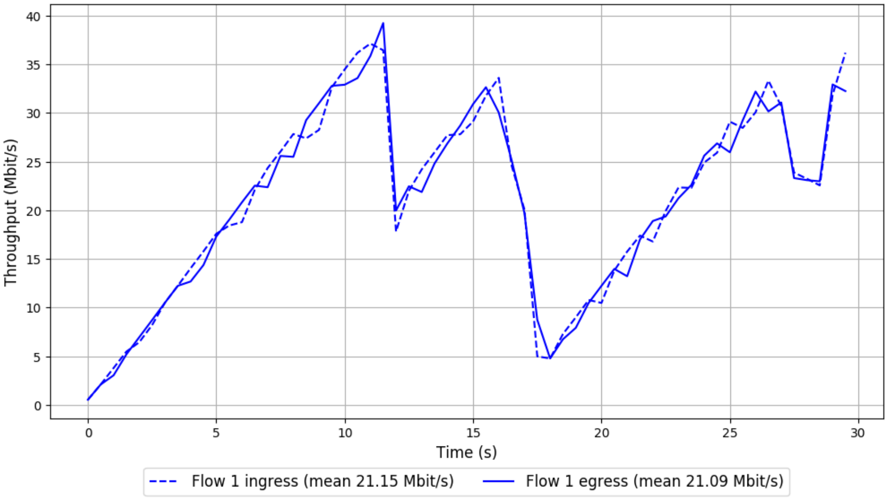
Run 9: Report of LEDBAT — Data Link

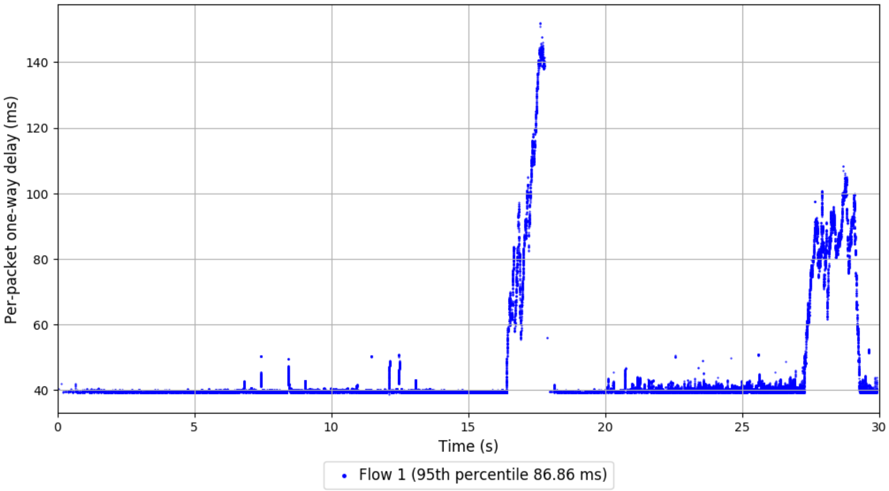




```
Run 10: Statistics of LEDBAT

Start at: 2017-12-01 03:48:18
End at: 2017-12-01 03:48:48
Local clock offset: -0.28 ms
Remote clock offset: -6.232 ms

# Below is generated by plot.py at 2017-12-01 06:48:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 86.857 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 86.857 ms
Loss rate: 0.56%
```

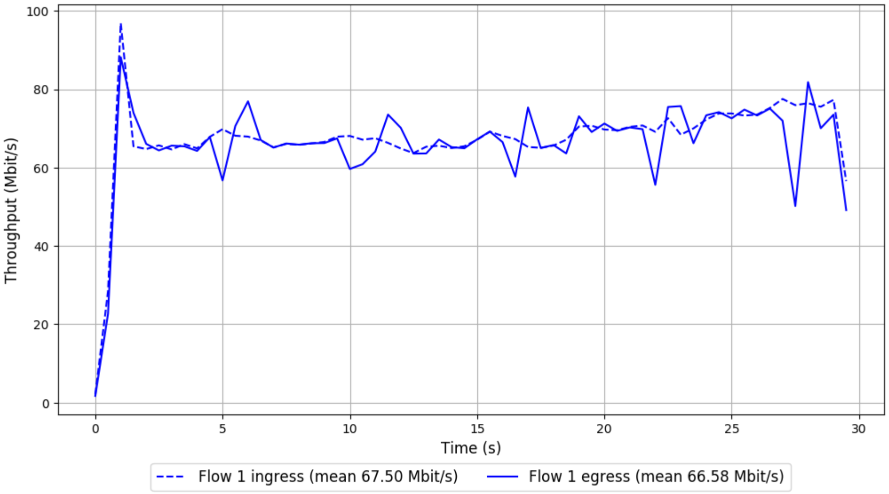
Run 10: Report of LEDBAT — Data Link

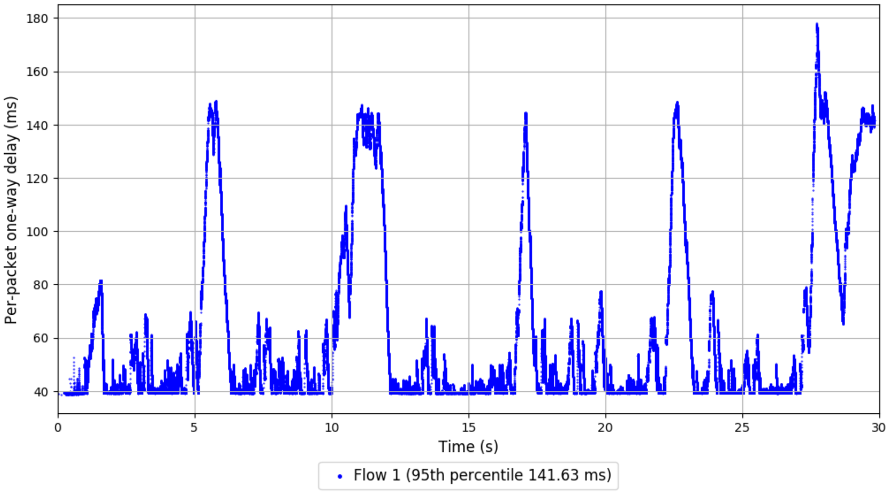




```
Run 1: Statistics of PCC

Start at: 2017-12-01 01:19:33
End at: 2017-12-01 01:20:03
Local clock offset: -0.438 ms
Remote clock offset: -6.66 ms

# Below is generated by plot.py at 2017-12-01 06:48:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.58 Mbit/s
95th percentile per-packet one-way delay: 141.633 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 66.58 Mbit/s
95th percentile per-packet one-way delay: 141.633 ms
Loss rate: 1.64%
```

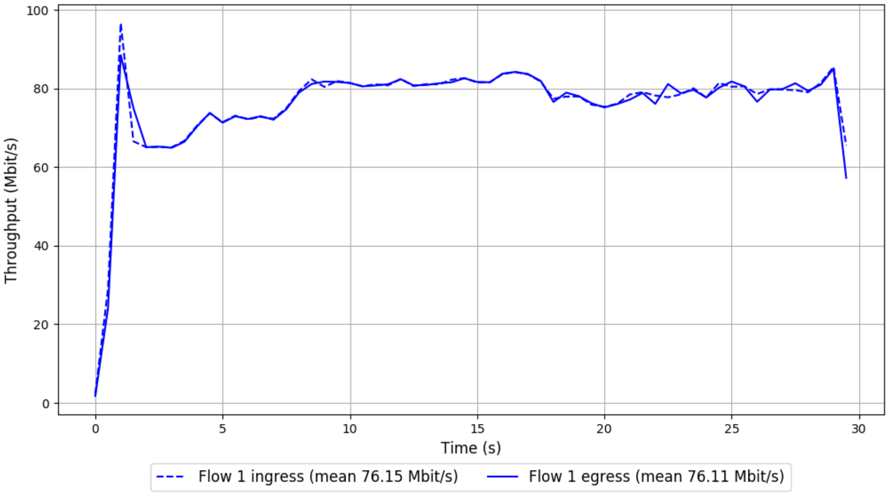
Run 1: Report of PCC — Data Link

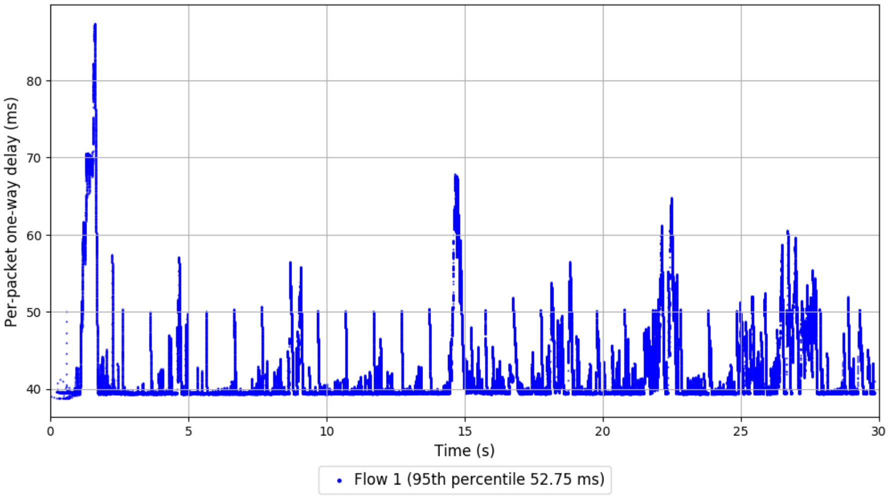




```
Run 2: Statistics of PCC

Start at: 2017-12-01 01:36:15
End at: 2017-12-01 01:36:45
Local clock offset: -0.47 ms
Remote clock offset: -6.513 ms

# Below is generated by plot.py at 2017-12-01 06:49:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.11 Mbit/s
95th percentile per-packet one-way delay: 52.748 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 76.11 Mbit/s
95th percentile per-packet one-way delay: 52.748 ms
Loss rate: 0.34%
```

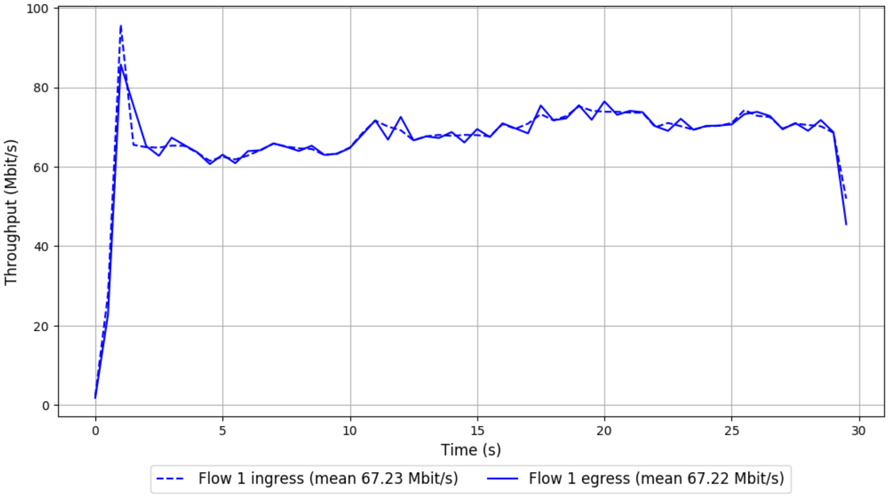
Run 2: Report of PCC — Data Link

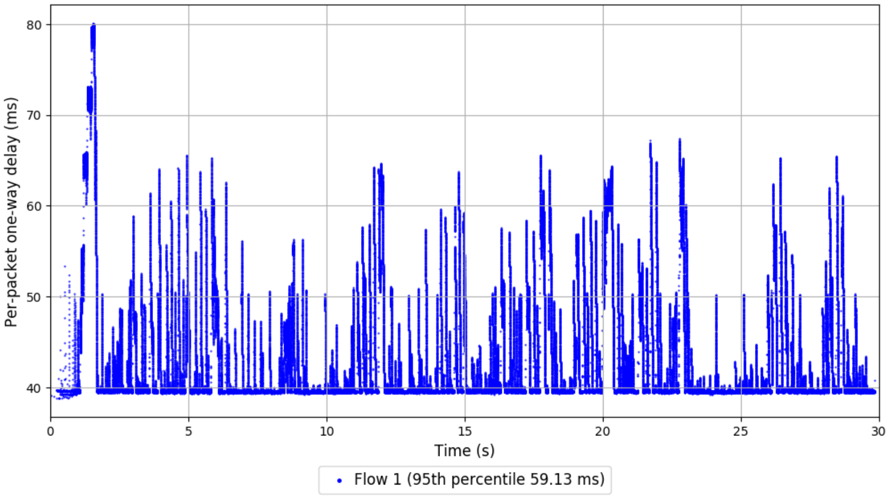




```
Run 3: Statistics of PCC

Start at: 2017-12-01 01:53:06
End at: 2017-12-01 01:53:36
Local clock offset: -0.31 ms
Remote clock offset: -6.396 ms

# Below is generated by plot.py at 2017-12-01 06:49:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 59.131 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 59.131 ms
Loss rate: 0.30%
```

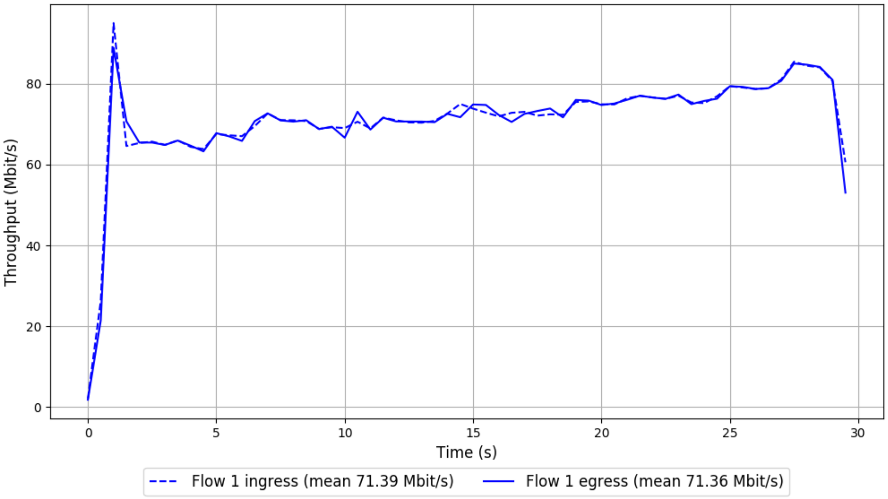
Run 3: Report of PCC — Data Link

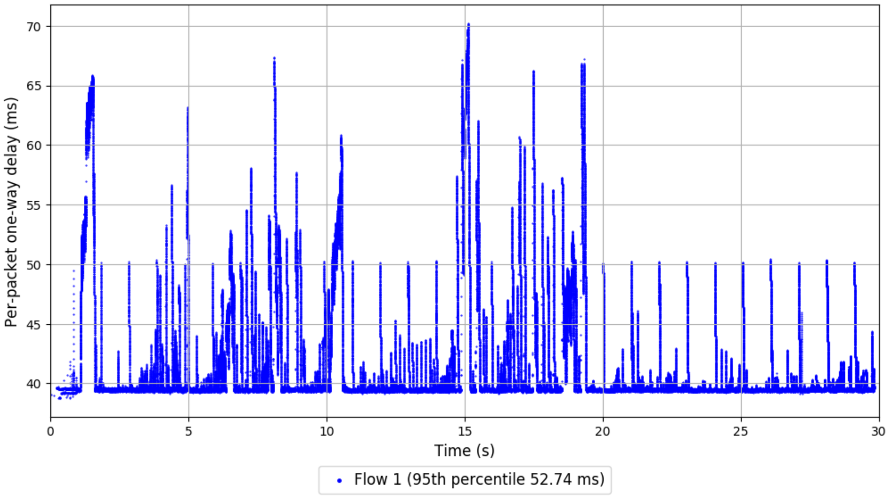




```
Run 4: Statistics of PCC

Start at: 2017-12-01 02:09:58
End at: 2017-12-01 02:10:28
Local clock offset: -0.291 ms
Remote clock offset: -6.347 ms

# Below is generated by plot.py at 2017-12-01 06:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.36 Mbit/s
95th percentile per-packet one-way delay: 52.737 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 71.36 Mbit/s
95th percentile per-packet one-way delay: 52.737 ms
Loss rate: 0.33%
```

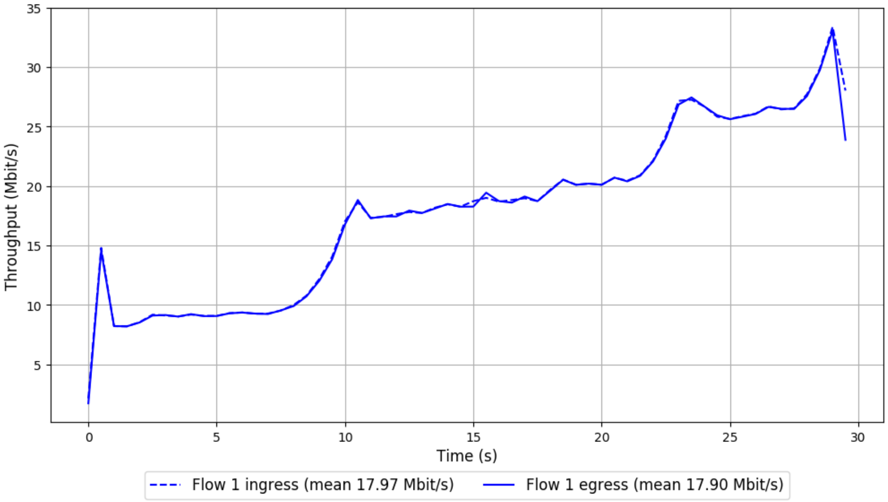
Run 4: Report of PCC — Data Link

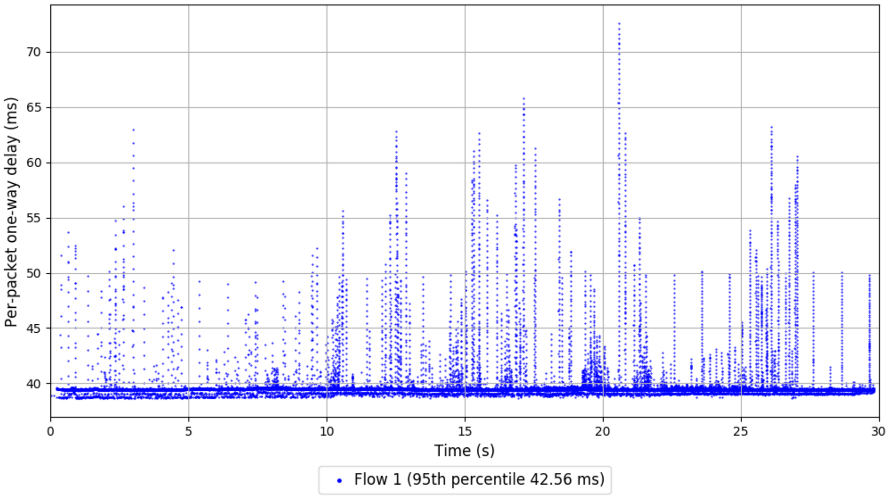




```
Run 5: Statistics of PCC

Start at: 2017-12-01 02:26:48
End at: 2017-12-01 02:27:19
Local clock offset: -0.181 ms
Remote clock offset: -6.249 ms

# Below is generated by plot.py at 2017-12-01 06:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 42.562 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 42.562 ms
Loss rate: 0.64%
```

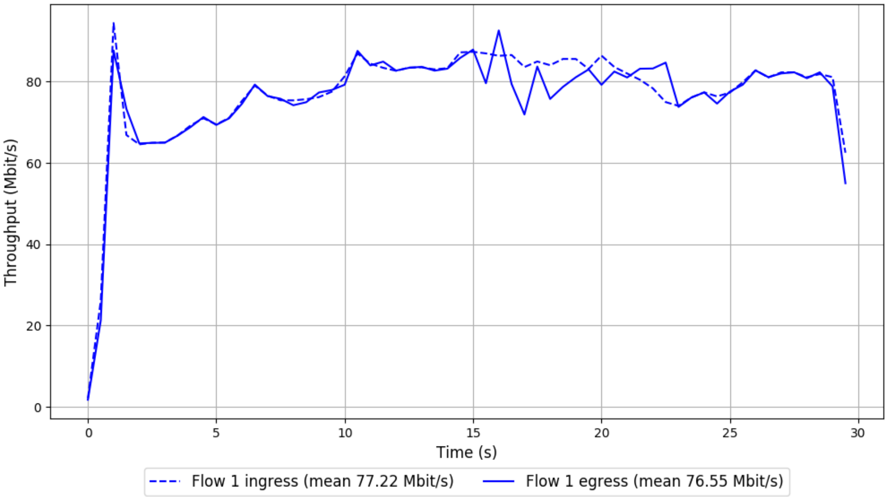
Run 5: Report of PCC — Data Link

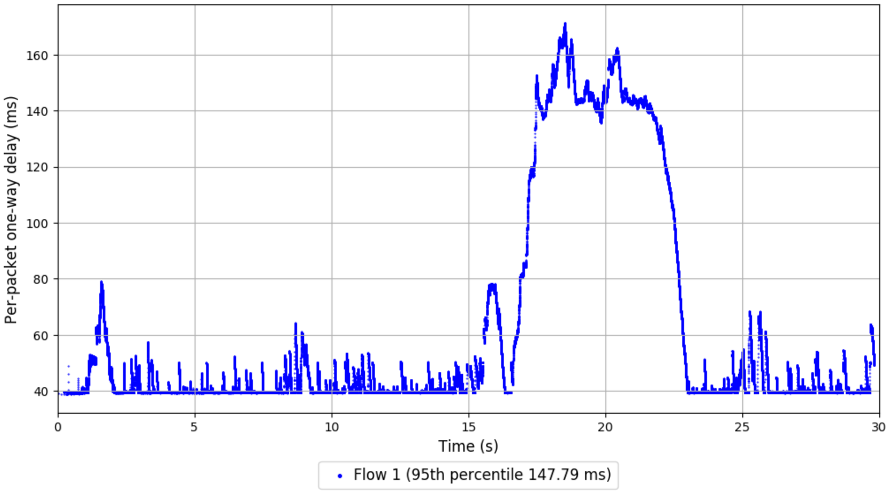




```
Run 6: Statistics of PCC

Start at: 2017-12-01 02:43:30
End at: 2017-12-01 02:44:00
Local clock offset: -0.062 ms
Remote clock offset: -6.129 ms

# Below is generated by plot.py at 2017-12-01 06:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 147.787 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 147.787 ms
Loss rate: 1.14%
```

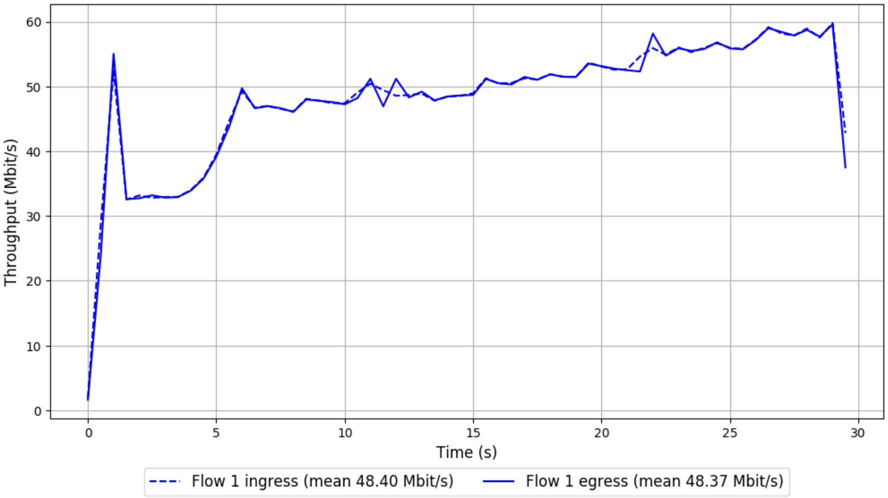
Run 6: Report of PCC — Data Link

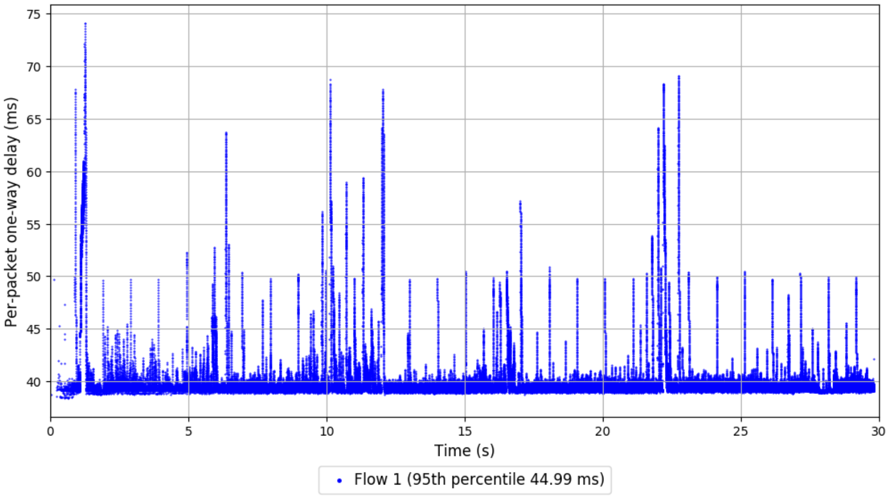




```
Run 7: Statistics of PCC

Start at: 2017-12-01 03:00:20
End at: 2017-12-01 03:00:50
Local clock offset: -0.03 ms
Remote clock offset: -6.121 ms

# Below is generated by plot.py at 2017-12-01 06:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 44.989 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 44.989 ms
Loss rate: 0.35%
```

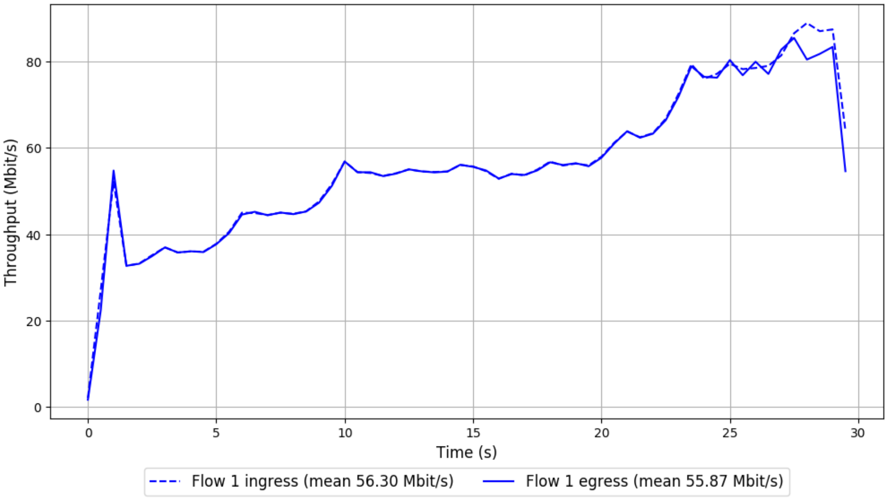
Run 7: Report of PCC — Data Link

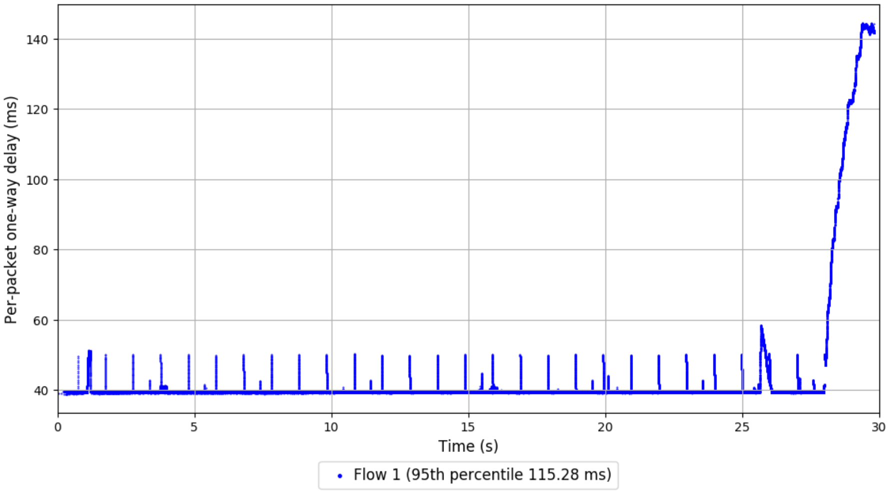




```
Run 8: Statistics of PCC

Start at: 2017-12-01 03:17:01
End at: 2017-12-01 03:17:31
Local clock offset: -0.242 ms
Remote clock offset: -6.35 ms

# Below is generated by plot.py at 2017-12-01 06:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.87 Mbit/s
95th percentile per-packet one-way delay: 115.281 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 55.87 Mbit/s
95th percentile per-packet one-way delay: 115.281 ms
Loss rate: 1.04%
```

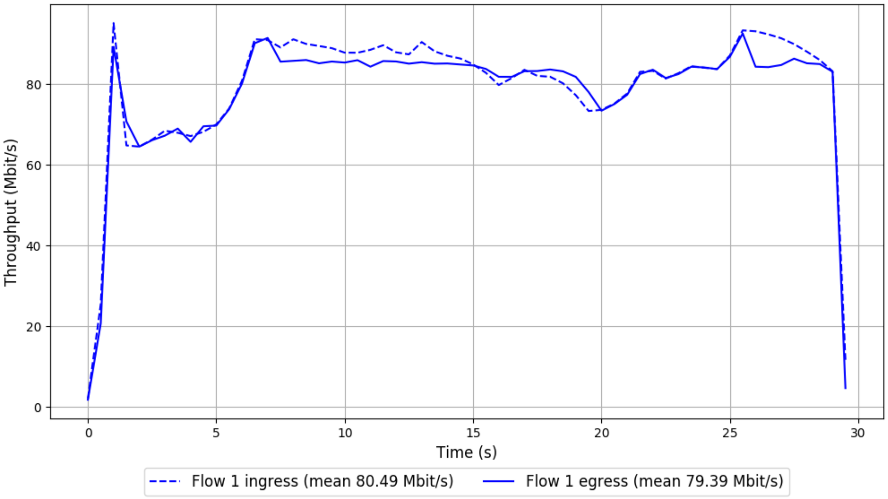
Run 8: Report of PCC — Data Link

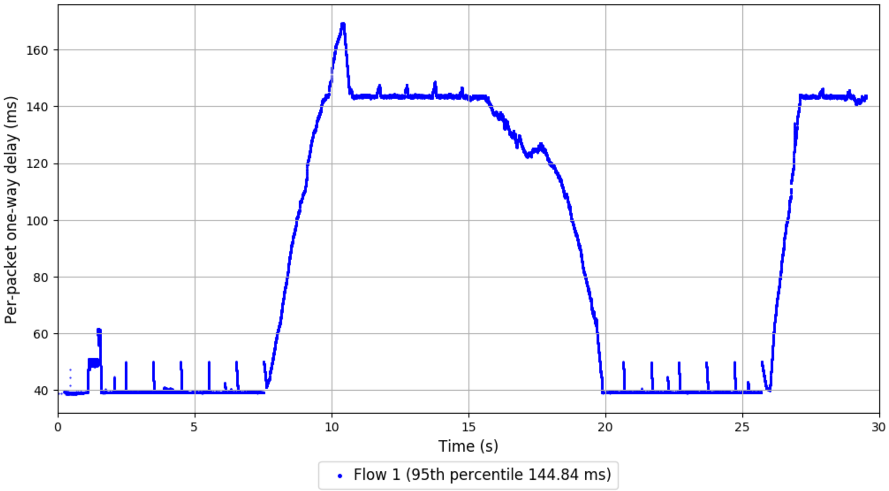




```
Run 9: Statistics of PCC

Start at: 2017-12-01 03:33:44
End at: 2017-12-01 03:34:14
Local clock offset: -0.23 ms
Remote clock offset: -6.386 ms

# Below is generated by plot.py at 2017-12-01 06:49:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.39 Mbit/s
95th percentile per-packet one-way delay: 144.845 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 79.39 Mbit/s
95th percentile per-packet one-way delay: 144.845 ms
Loss rate: 1.65%
```

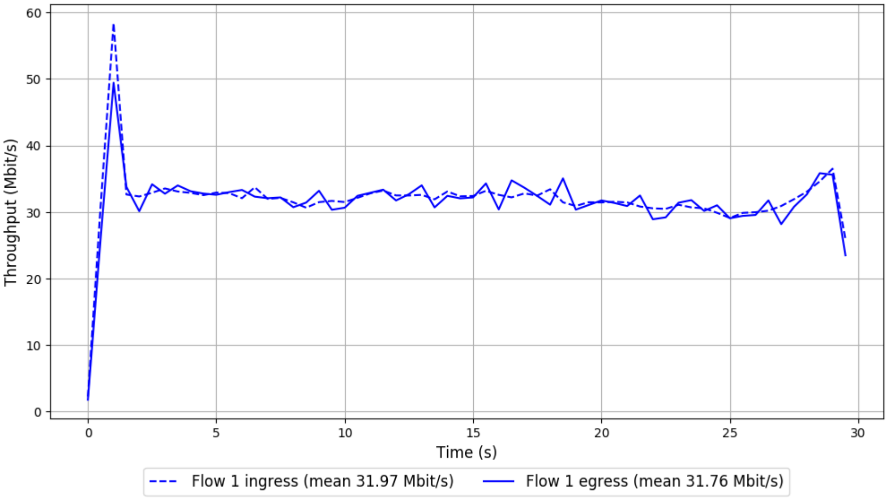
Run 9: Report of PCC — Data Link

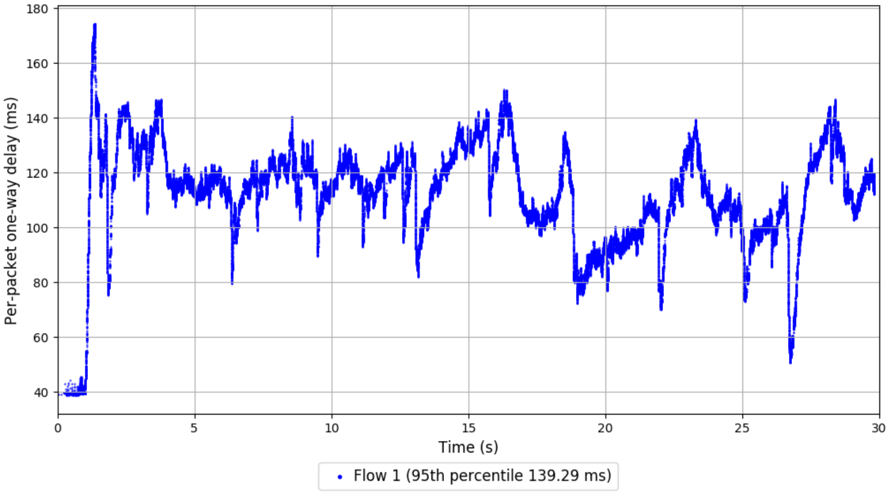




```
Run 10: Statistics of PCC

Start at: 2017-12-01 03:50:39
End at: 2017-12-01 03:51:10
Local clock offset: -0.397 ms
Remote clock offset: -6.278 ms

# Below is generated by plot.py at 2017-12-01 06:49:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 139.286 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 139.286 ms
Loss rate: 0.94%
```

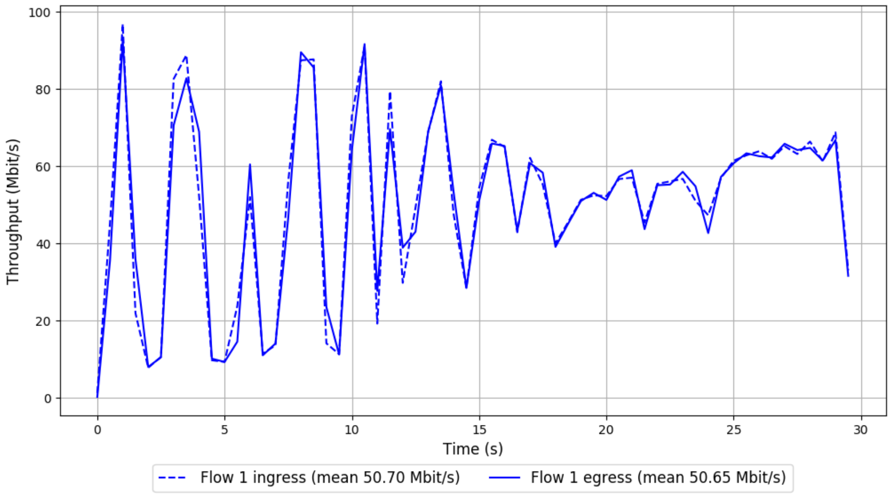
Run 10: Report of PCC — Data Link

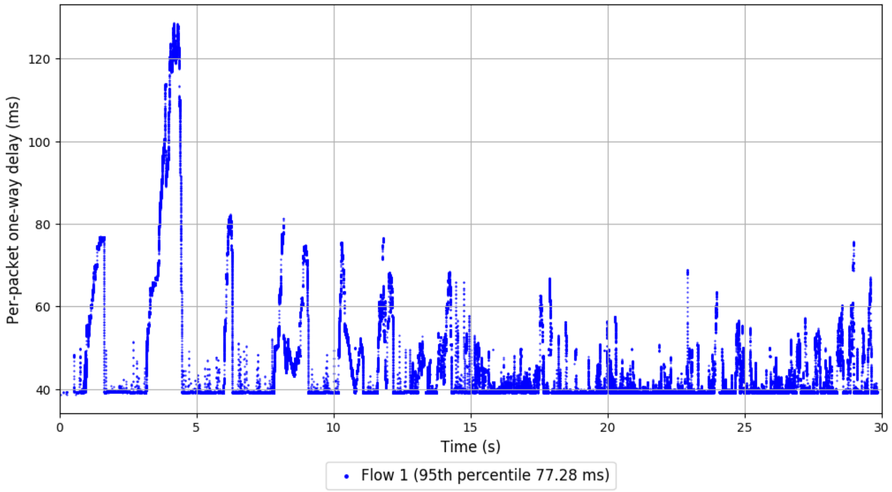




```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-01 01:18:21
End at: 2017-12-01 01:18:51
Local clock offset: -0.595 ms
Remote clock offset: -6.704 ms

# Below is generated by plot.py at 2017-12-01 06:49:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.65 Mbit/s
95th percentile per-packet one-way delay: 77.285 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 50.65 Mbit/s
95th percentile per-packet one-way delay: 77.285 ms
Loss rate: 0.39%
```

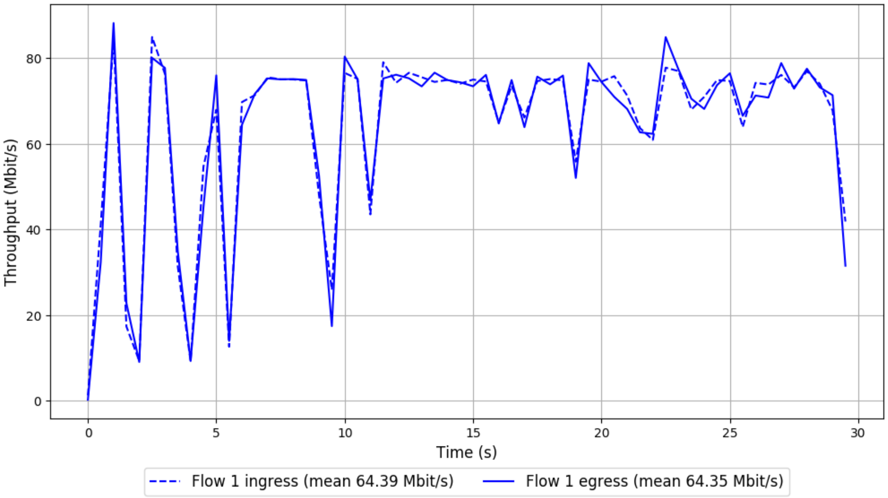
Run 1: Report of QUIC Cubic — Data Link

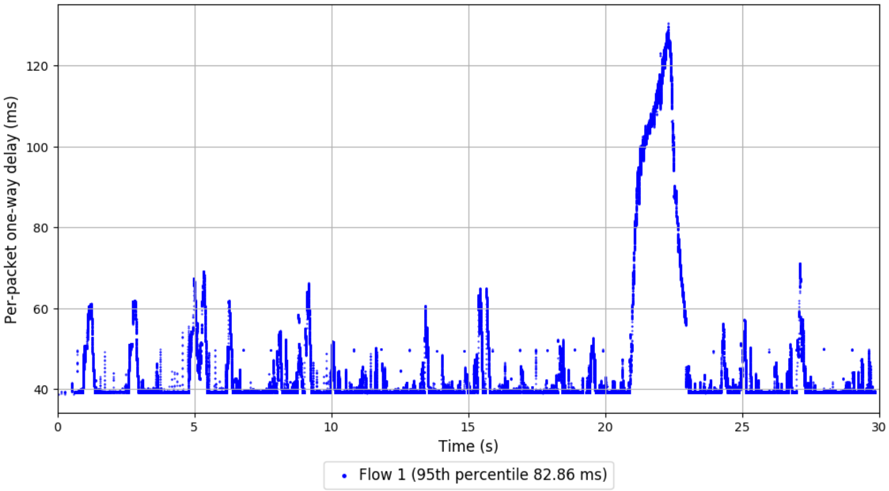




```
Run 2: Statistics of QUIC Cubic

Start at: 2017-12-01 01:35:03
End at: 2017-12-01 01:35:33
Local clock offset: -0.448 ms
Remote clock offset: -6.536 ms

# Below is generated by plot.py at 2017-12-01 06:50:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.35 Mbit/s
95th percentile per-packet one-way delay: 82.857 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 64.35 Mbit/s
95th percentile per-packet one-way delay: 82.857 ms
Loss rate: 0.35%
```

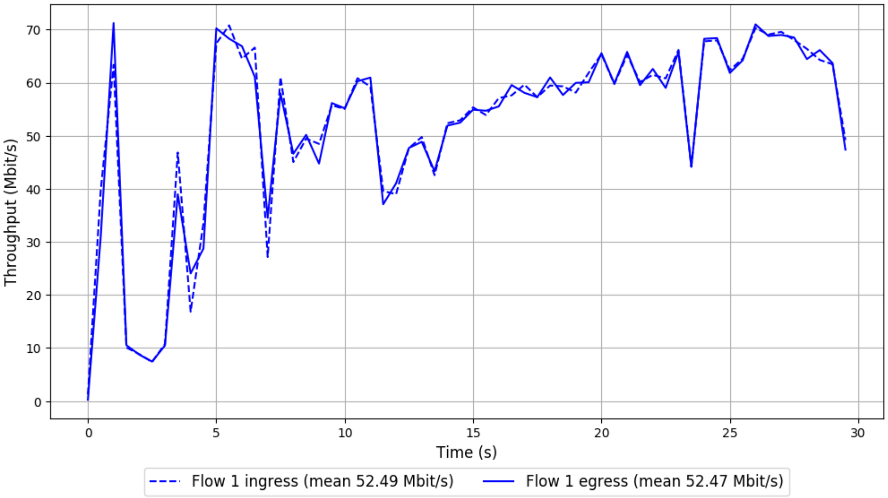
Run 2: Report of QUIC Cubic — Data Link

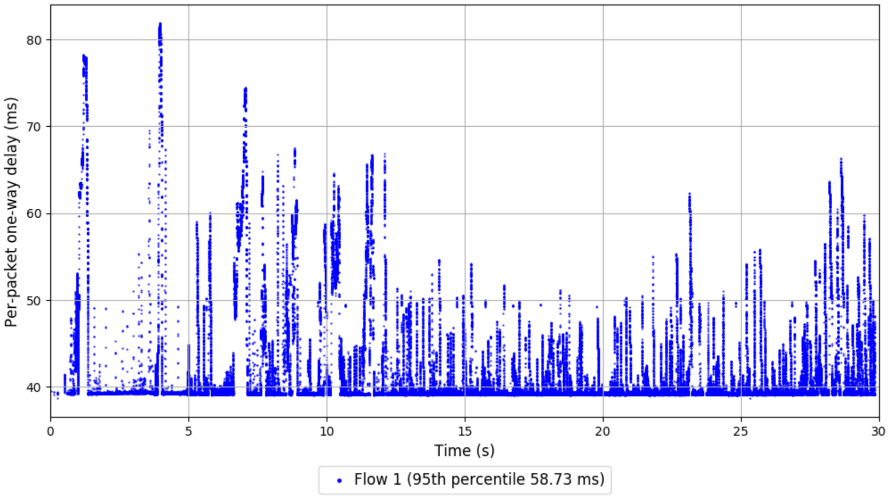




```
Run 3: Statistics of QUIC Cubic

Start at: 2017-12-01 01:51:54
End at: 2017-12-01 01:52:25
Local clock offset: -0.455 ms
Remote clock offset: -6.399 ms

# Below is generated by plot.py at 2017-12-01 06:50:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 58.735 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 58.735 ms
Loss rate: 0.32%
```

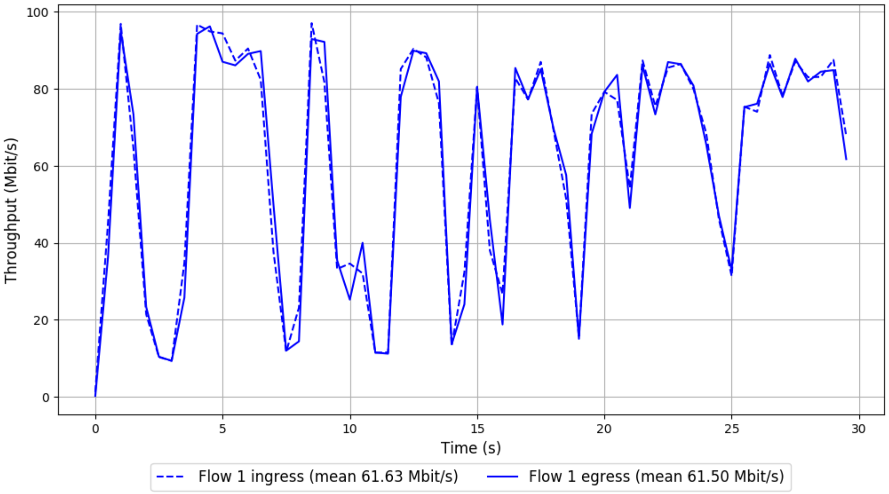
Run 3: Report of QUIC Cubic — Data Link

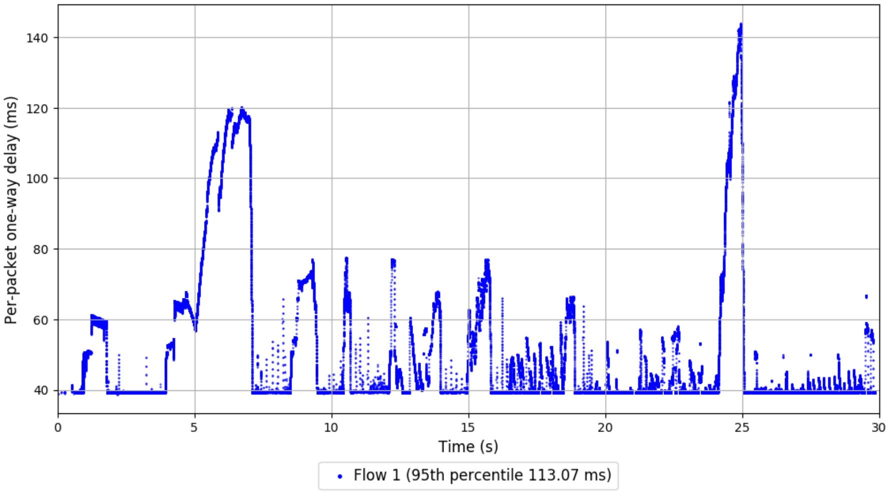




```
Run 4: Statistics of QUIC Cubic

Start at: 2017-12-01 02:08:46
End at: 2017-12-01 02:09:16
Local clock offset: -0.057 ms
Remote clock offset: -6.308 ms

# Below is generated by plot.py at 2017-12-01 06:50:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.50 Mbit/s
95th percentile per-packet one-way delay: 113.071 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 61.50 Mbit/s
95th percentile per-packet one-way delay: 113.071 ms
Loss rate: 0.49%
```

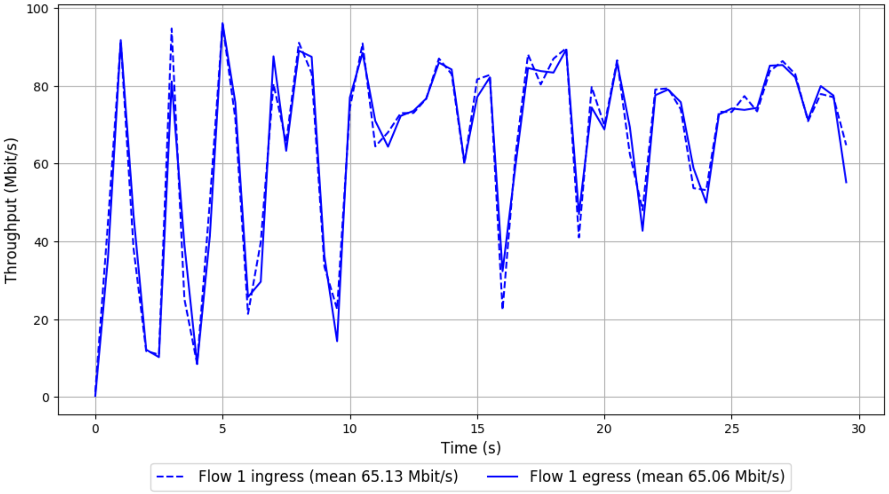
Run 4: Report of QUIC Cubic — Data Link

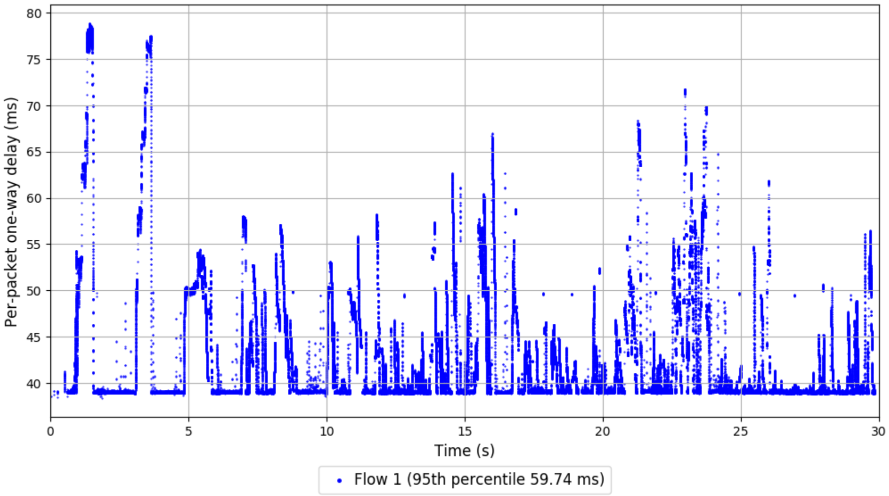




```
Run 5: Statistics of QUIC Cubic

Start at: 2017-12-01 02:25:36
End at: 2017-12-01 02:26:06
Local clock offset: 0.06 ms
Remote clock offset: -6.234 ms

# Below is generated by plot.py at 2017-12-01 06:50:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 59.740 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 59.740 ms
Loss rate: 0.38%
```

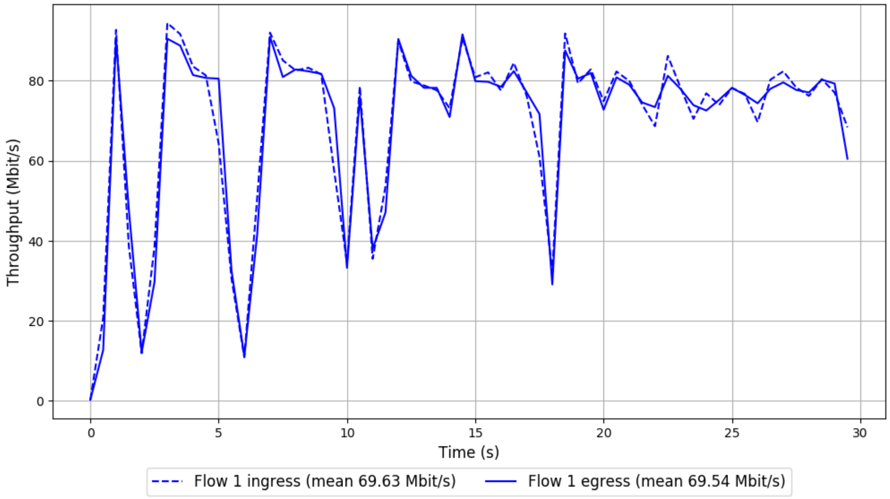
Run 5: Report of QUIC Cubic — Data Link

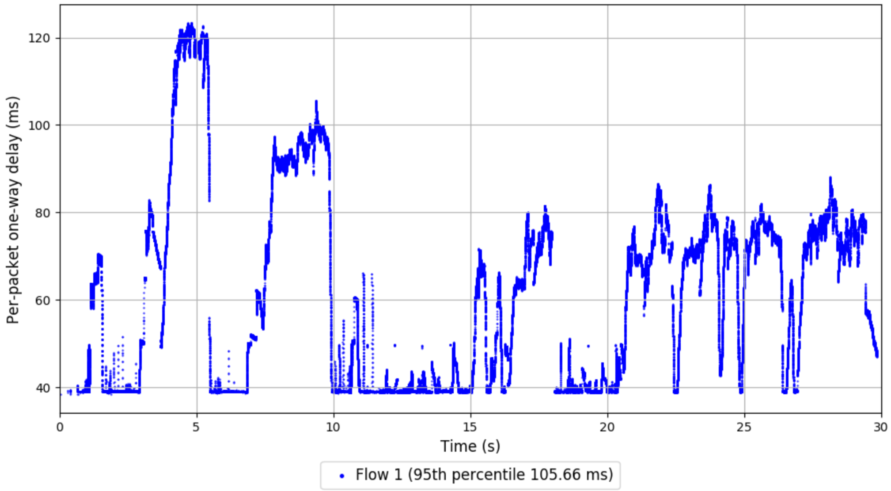




```
Run 6: Statistics of QUIC Cubic

Start at: 2017-12-01 02:42:18
End at: 2017-12-01 02:42:48
Local clock offset: -0.032 ms
Remote clock offset: -6.164 ms

# Below is generated by plot.py at 2017-12-01 06:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.54 Mbit/s
95th percentile per-packet one-way delay: 105.658 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 69.54 Mbit/s
95th percentile per-packet one-way delay: 105.658 ms
Loss rate: 0.42%
```

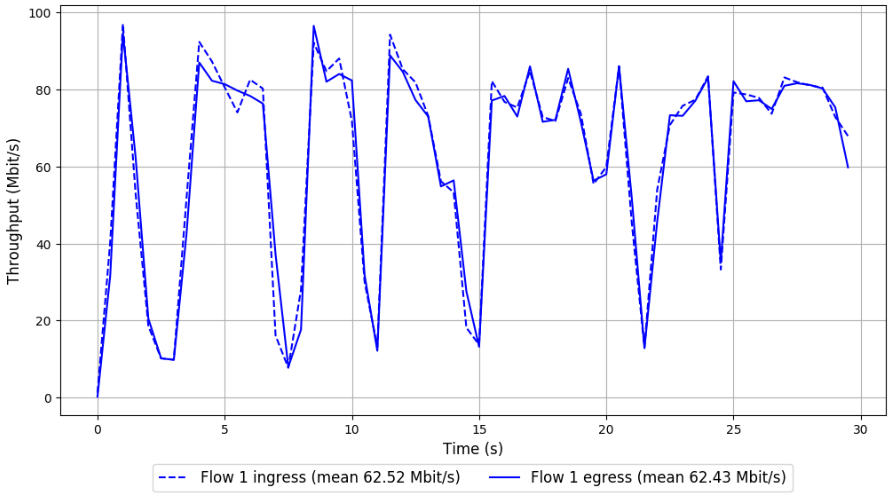
Run 6: Report of QUIC Cubic — Data Link

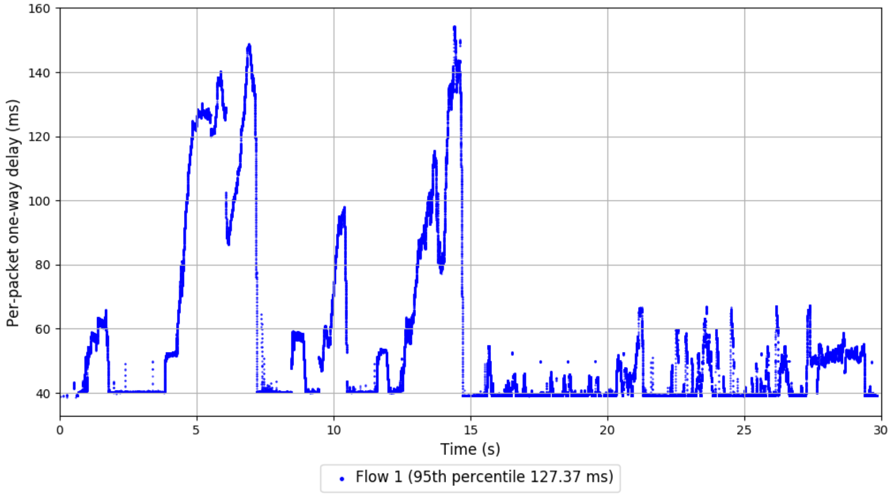




```
Run 7: Statistics of QUIC Cubic

Start at: 2017-12-01 02:59:08
End at: 2017-12-01 02:59:38
Local clock offset: 0.035 ms
Remote clock offset: -6.12 ms

# Below is generated by plot.py at 2017-12-01 06:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.43 Mbit/s
95th percentile per-packet one-way delay: 127.371 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 62.43 Mbit/s
95th percentile per-packet one-way delay: 127.371 ms
Loss rate: 0.42%
```

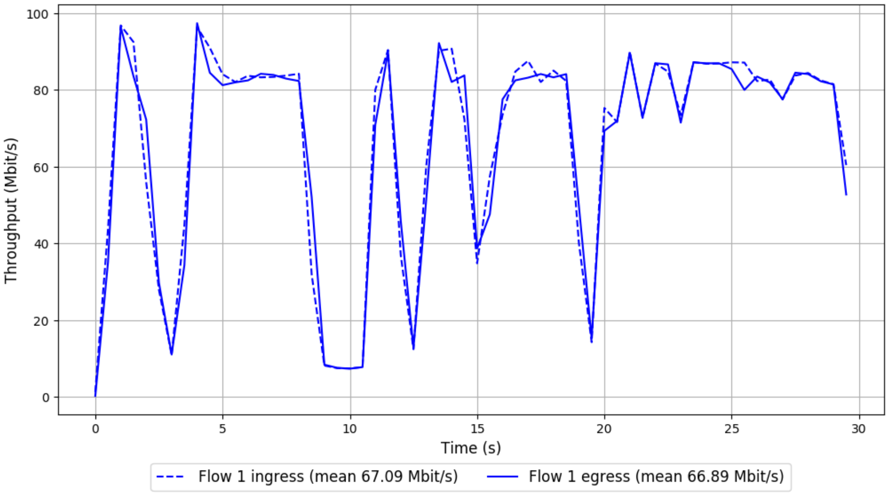
Run 7: Report of QUIC Cubic — Data Link

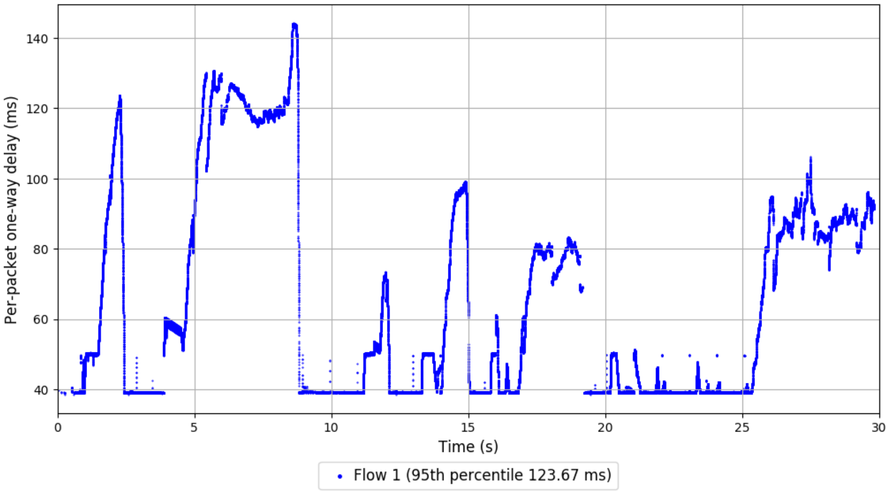




```
Run 8: Statistics of QUIC Cubic

Start at: 2017-12-01 03:15:48
End at: 2017-12-01 03:16:18
Local clock offset: -0.258 ms
Remote clock offset: -6.351 ms

# Below is generated by plot.py at 2017-12-01 06:51:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.89 Mbit/s
95th percentile per-packet one-way delay: 123.669 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 66.89 Mbit/s
95th percentile per-packet one-way delay: 123.669 ms
Loss rate: 0.59%
```

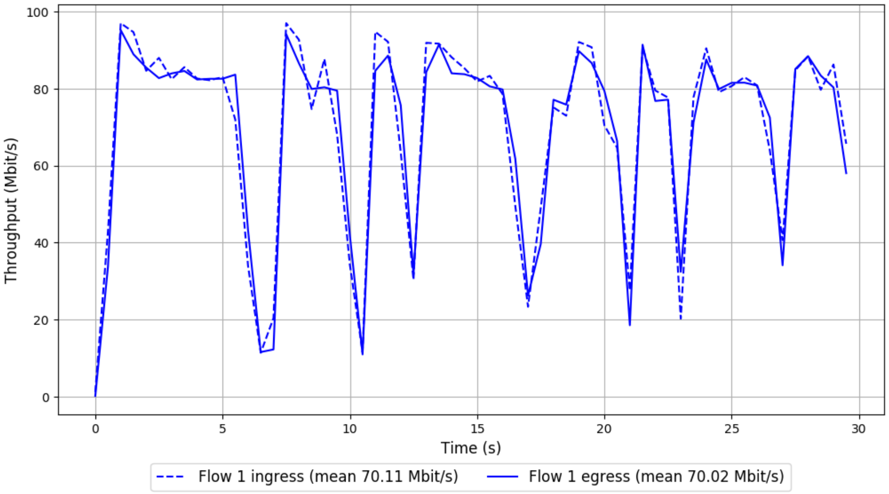
Run 8: Report of QUIC Cubic — Data Link

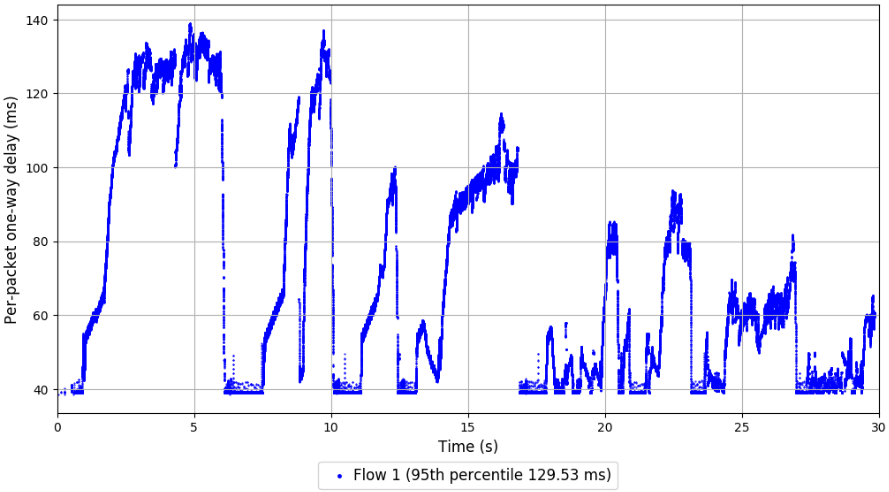




```
Run 9: Statistics of QUIC Cubic

Start at: 2017-12-01 03:32:31
End at: 2017-12-01 03:33:02
Local clock offset: -0.34 ms
Remote clock offset: -6.404 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.02 Mbit/s
95th percentile per-packet one-way delay: 129.525 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 70.02 Mbit/s
95th percentile per-packet one-way delay: 129.525 ms
Loss rate: 0.42%
```

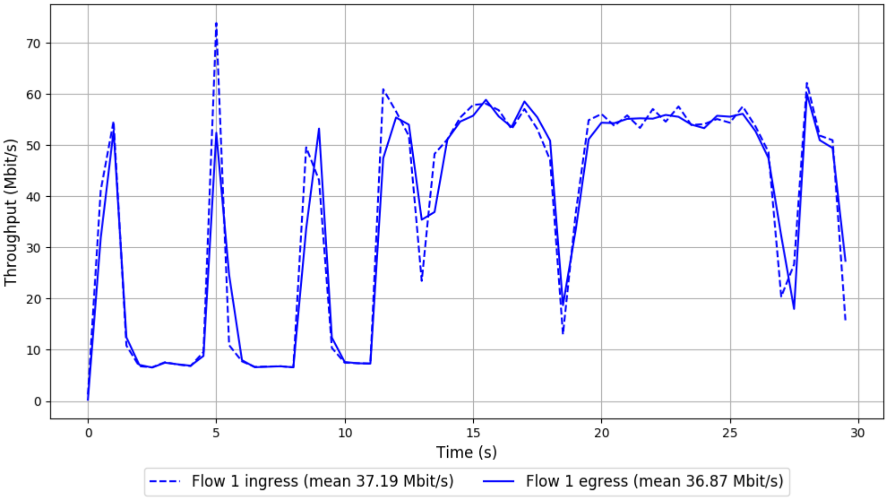
Run 9: Report of QUIC Cubic — Data Link

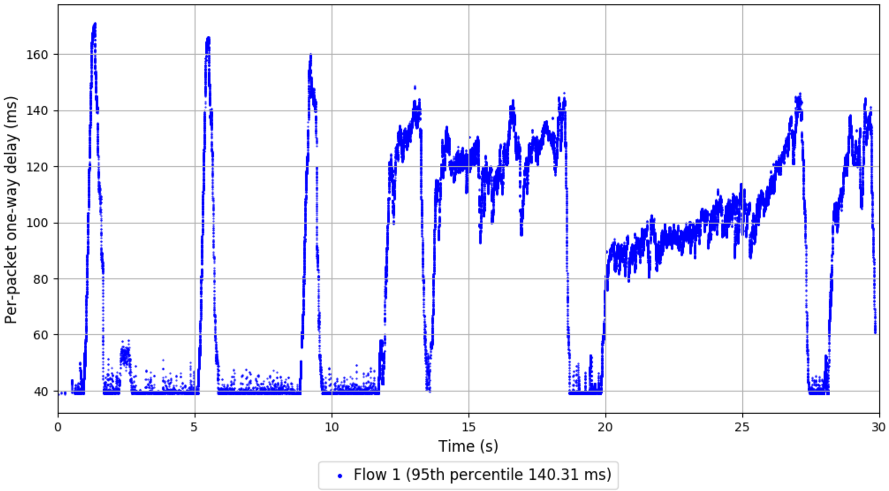




```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-01 03:49:28
End at: 2017-12-01 03:49:58
Local clock offset: -0.314 ms
Remote clock offset: -6.252 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 140.313 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 140.313 ms
Loss rate: 1.16%
```

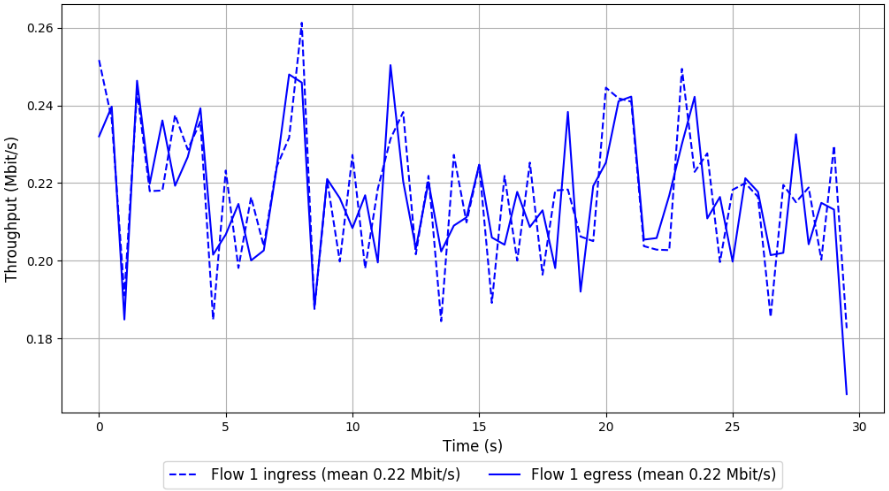
Run 10: Report of QUIC Cubic — Data Link

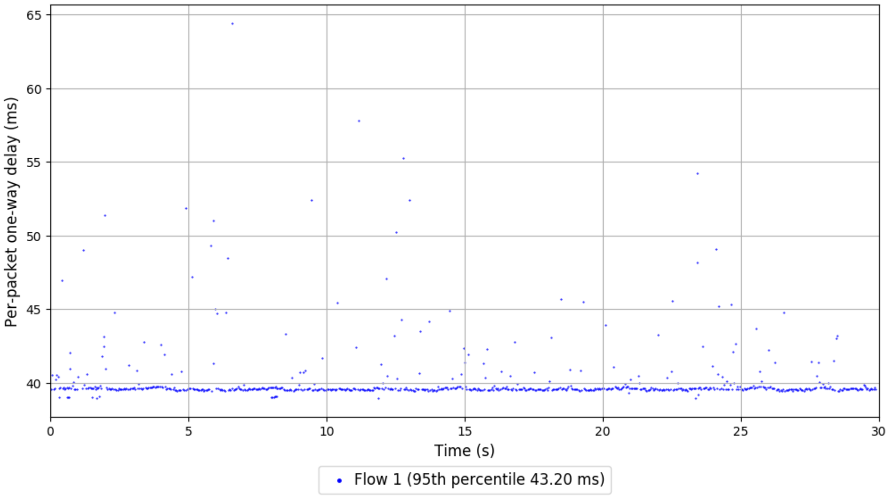




```
Run 1: Statistics of SCReAM

Start at: 2017-12-01 01:16:02
End at: 2017-12-01 01:16:32
Local clock offset: -0.574 ms
Remote clock offset: -6.681 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.196 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.196 ms
Loss rate: 0.26%
```

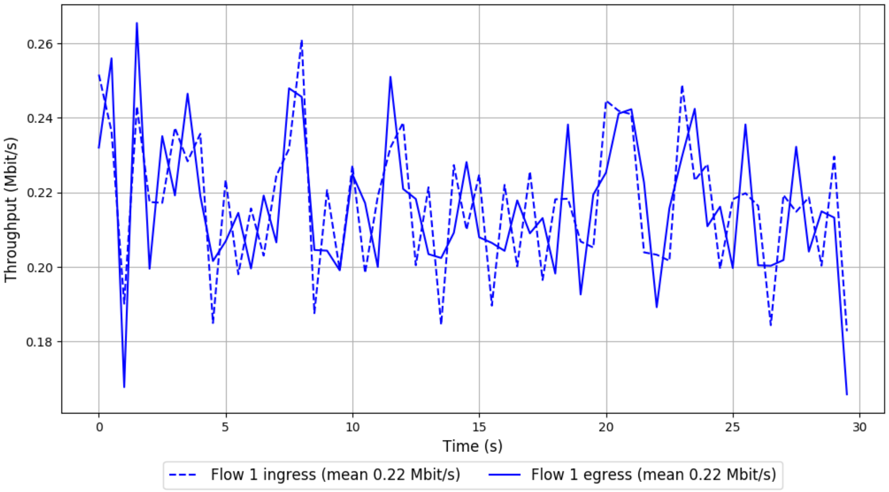
Run 1: Report of SCReAM — Data Link

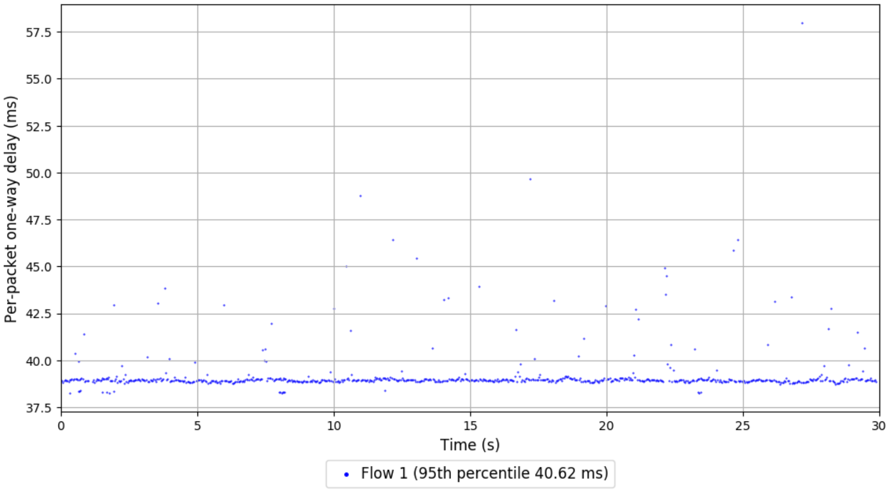




```
Run 2: Statistics of SCReAM

Start at: 2017-12-01 01:32:43
End at: 2017-12-01 01:33:13
Local clock offset: -0.479 ms
Remote clock offset: -6.545 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.620 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.620 ms
Loss rate: 0.26%
```

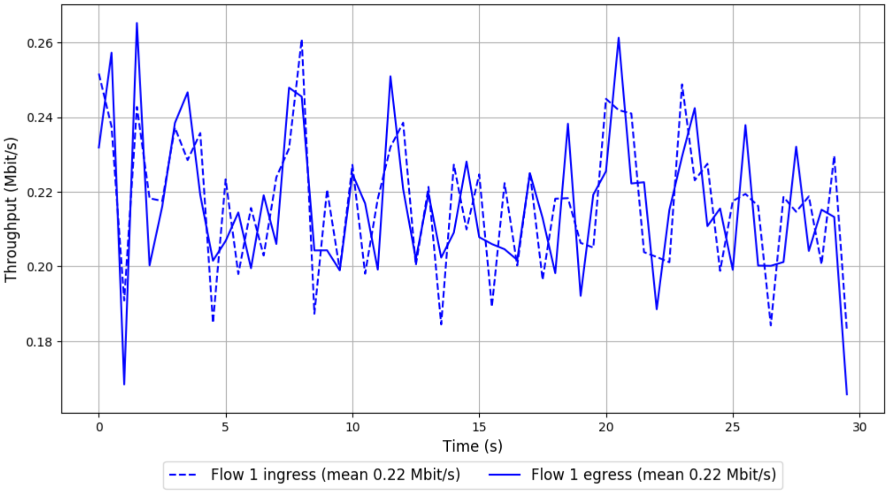
Run 2: Report of SCReAM — Data Link

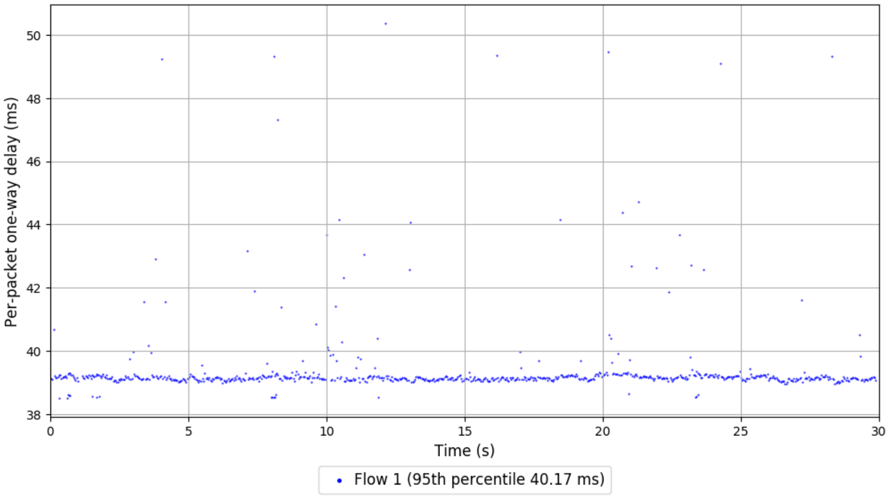




```
Run 3: Statistics of SCReAM

Start at: 2017-12-01 01:49:36
End at: 2017-12-01 01:50:06
Local clock offset: -0.495 ms
Remote clock offset: -6.375 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.171 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.171 ms
Loss rate: 0.26%
```

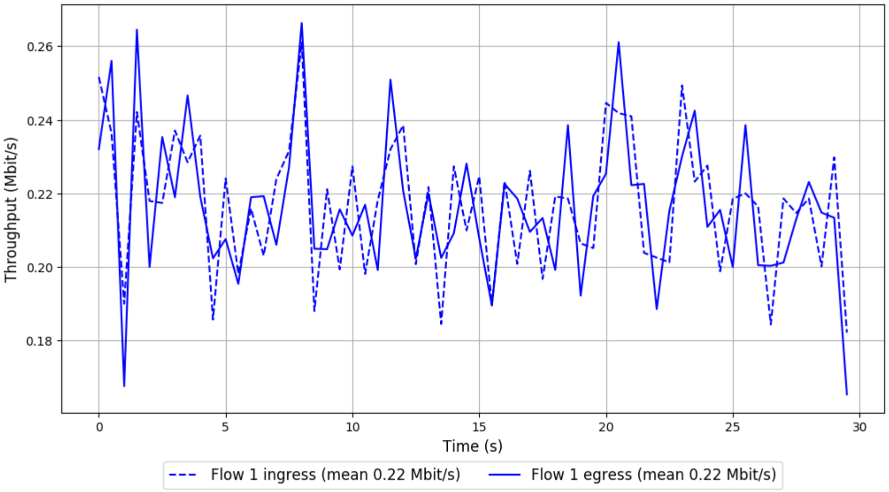
Run 3: Report of SCReAM — Data Link

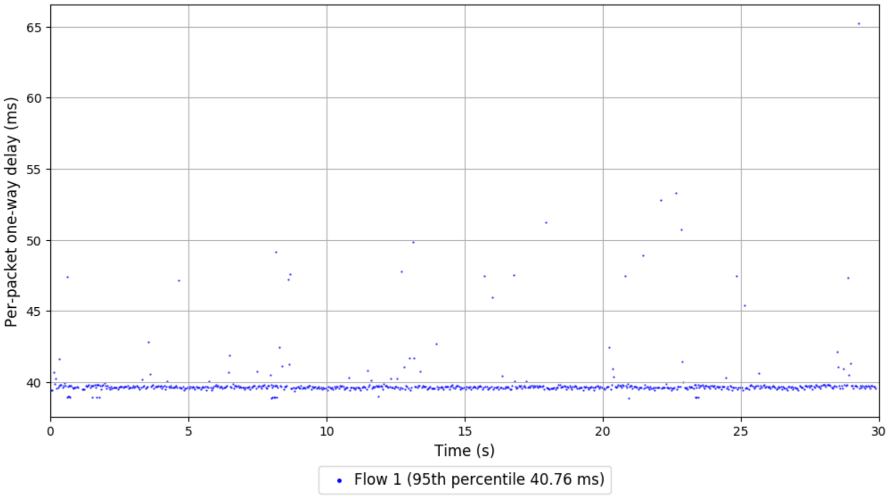




```
Run 4: Statistics of SCReAM

Start at: 2017-12-01 02:06:26
End at: 2017-12-01 02:06:56
Local clock offset: -0.205 ms
Remote clock offset: -6.284 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.763 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.763 ms
Loss rate: 0.26%
```

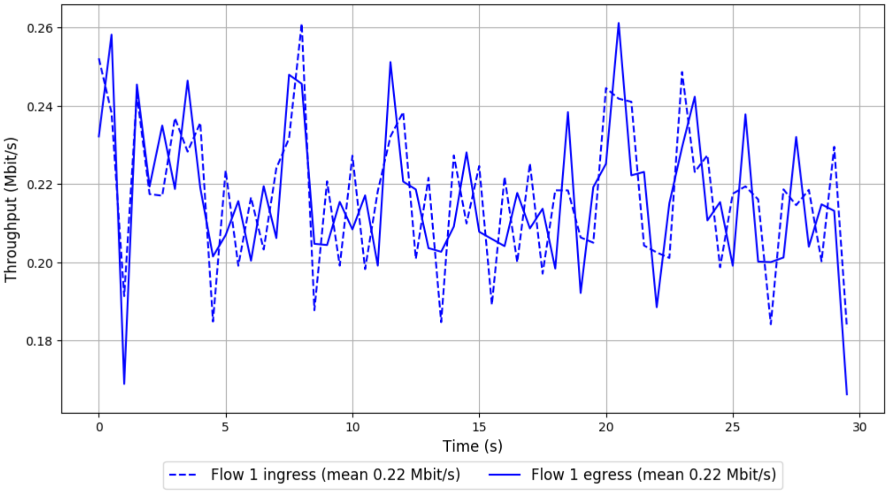
Run 4: Report of SCReAM — Data Link

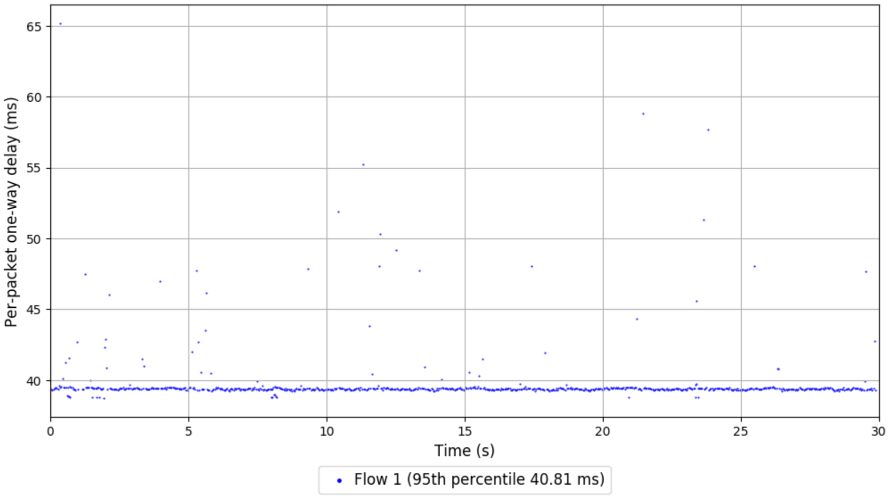




```
Run 5: Statistics of SCReAM

Start at: 2017-12-01 02:23:18
End at: 2017-12-01 02:23:48
Local clock offset: 0.052 ms
Remote clock offset: -6.296 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.809 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.809 ms
Loss rate: 0.26%
```

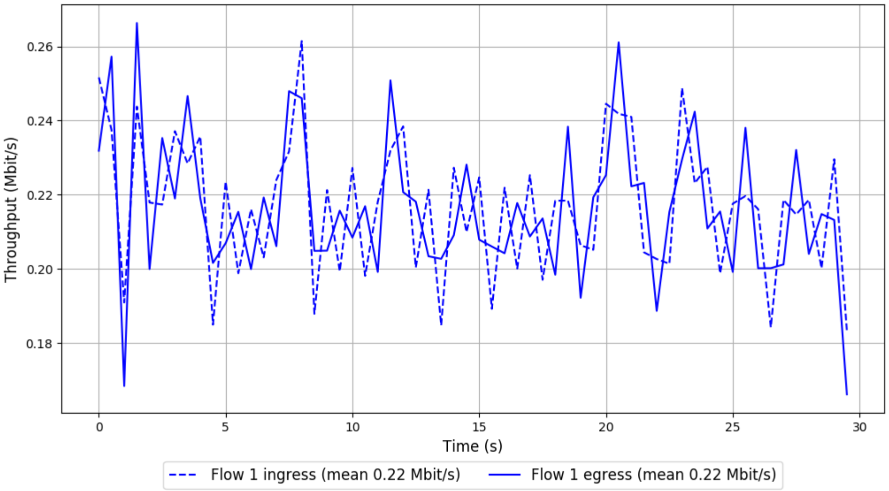
Run 5: Report of SCReAM — Data Link

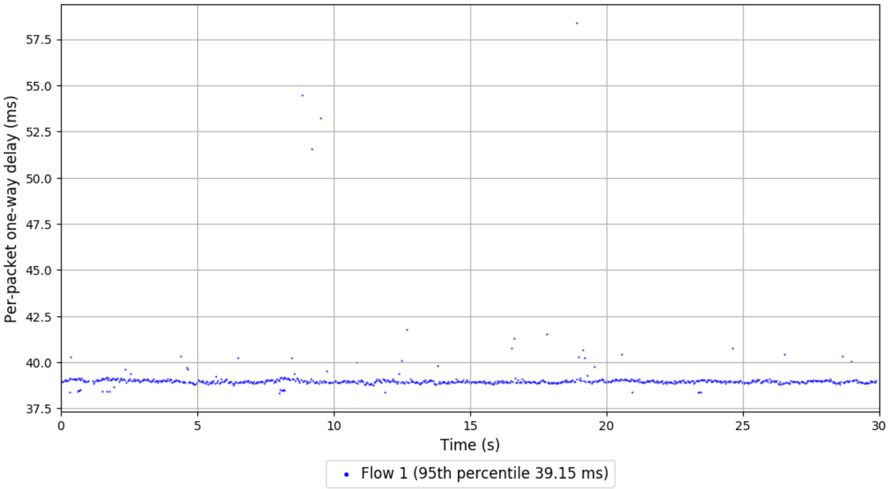




```
Run 6: Statistics of SCReAM

Start at: 2017-12-01 02:39:58
End at: 2017-12-01 02:40:28
Local clock offset: -0.052 ms
Remote clock offset: -6.194 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.150 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.150 ms
Loss rate: 0.26%
```

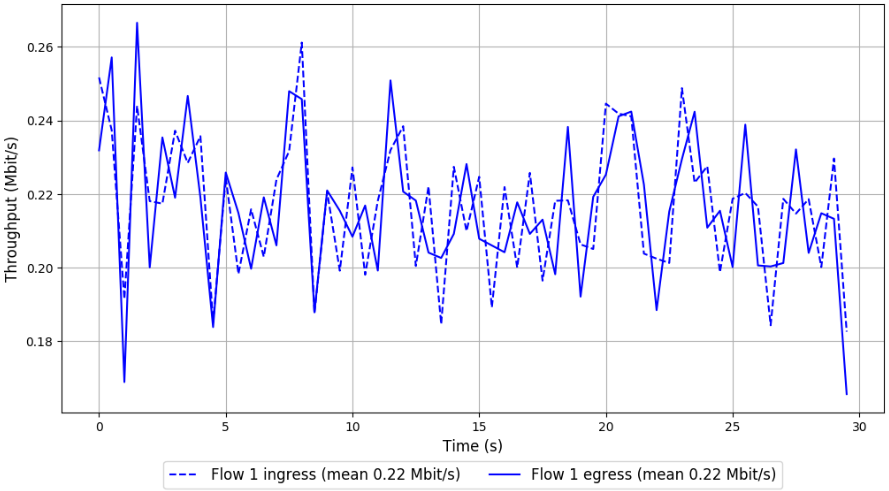
Run 6: Report of SCReAM — Data Link

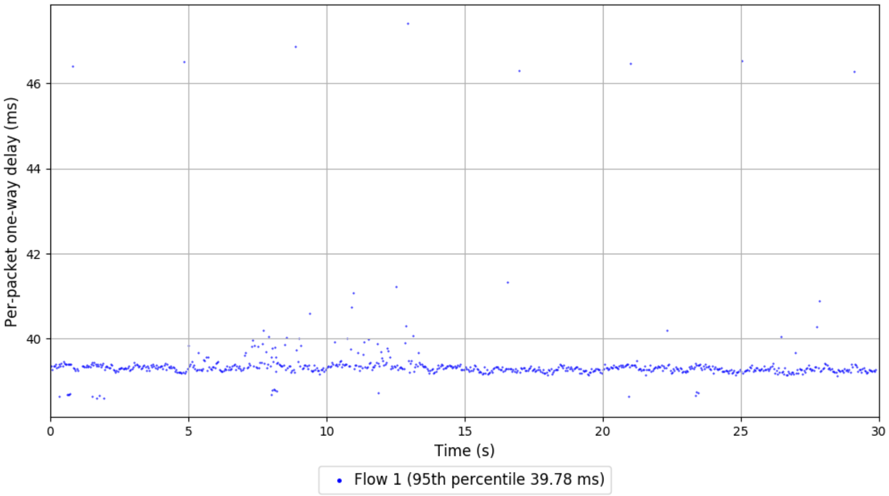




```
Run 7: Statistics of SCReAM

Start at: 2017-12-01 02:56:48
End at: 2017-12-01 02:57:18
Local clock offset: -0.038 ms
Remote clock offset: -6.191 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.777 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.777 ms
Loss rate: 0.26%
```

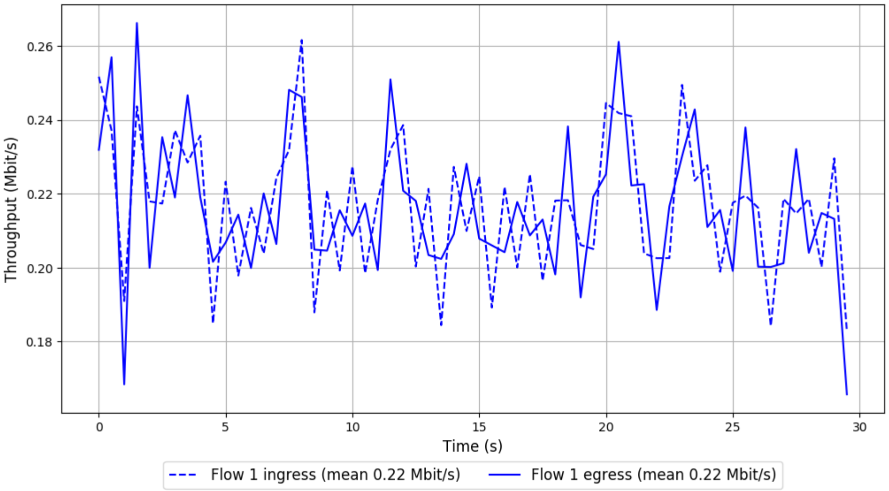
Run 7: Report of SCReAM — Data Link

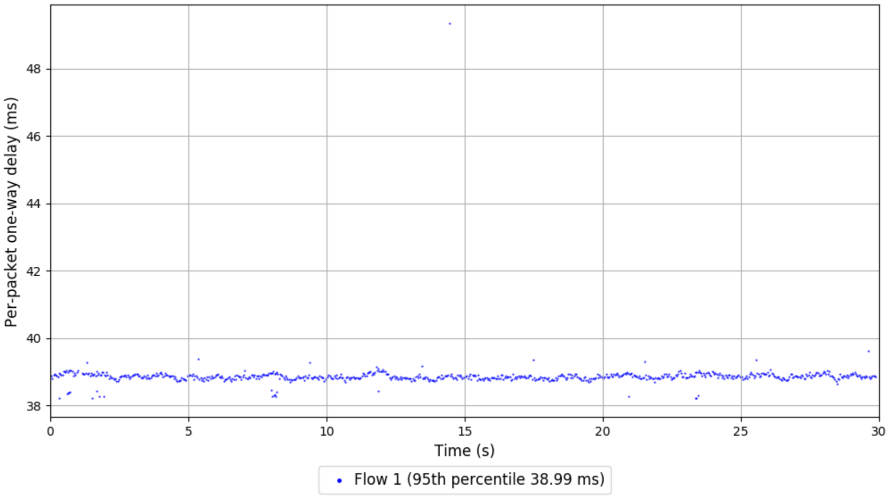




```
Run 8: Statistics of SCReAM

Start at: 2017-12-01 03:13:30
End at: 2017-12-01 03:14:00
Local clock offset: -0.234 ms
Remote clock offset: -6.315 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 38.995 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 38.995 ms
Loss rate: 0.26%
```

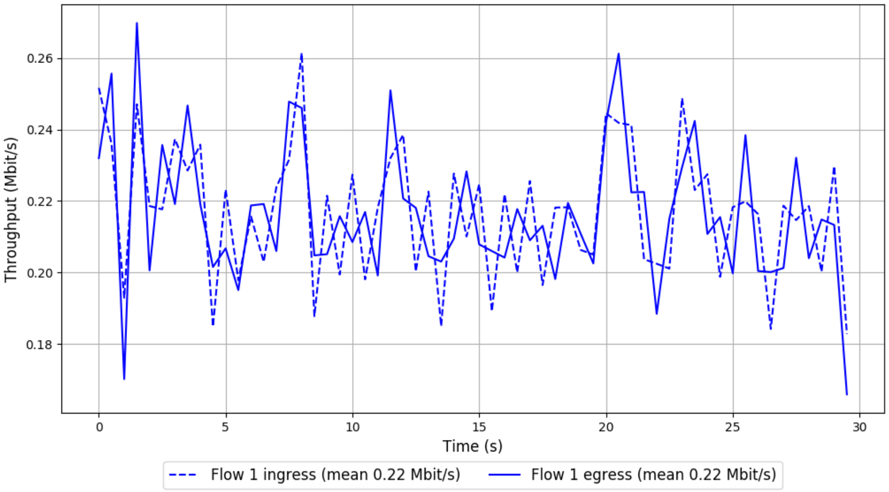
Run 8: Report of SCReAM — Data Link

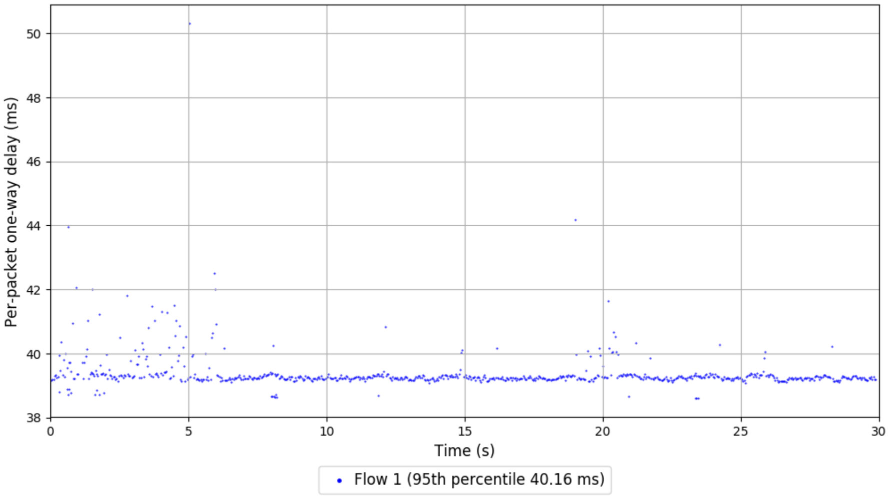




```
Run 9: Statistics of SCReAM

Start at: 2017-12-01 03:30:11
End at: 2017-12-01 03:30:42
Local clock offset: -0.215 ms
Remote clock offset: -6.376 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.163 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 40.163 ms
Loss rate: 0.26%
```

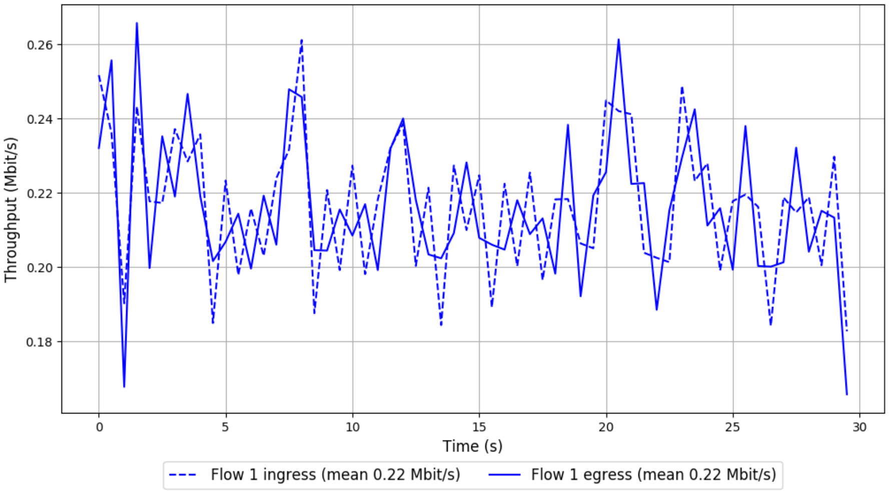
Run 9: Report of SCReAM — Data Link

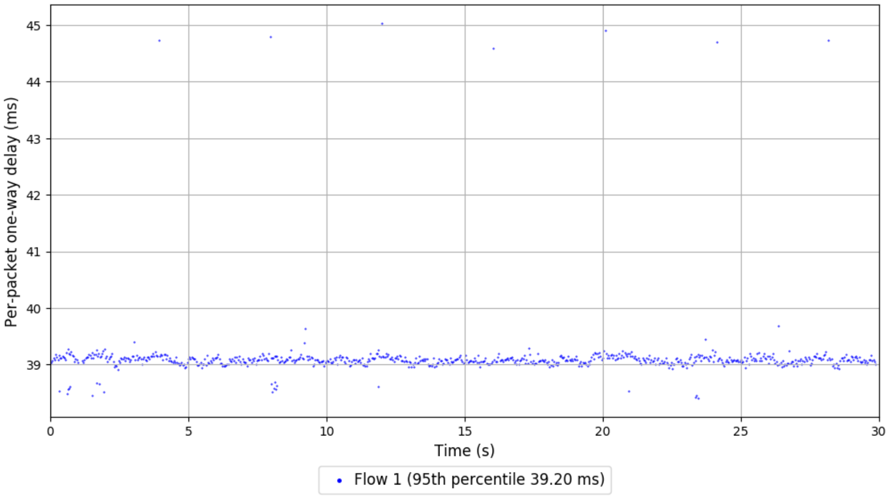




```
Run 10: Statistics of SCReAM

Start at: 2017-12-01 03:47:10
End at: 2017-12-01 03:47:40
Local clock offset: -0.123 ms
Remote clock offset: -6.227 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.199 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.199 ms
Loss rate: 0.26%
```

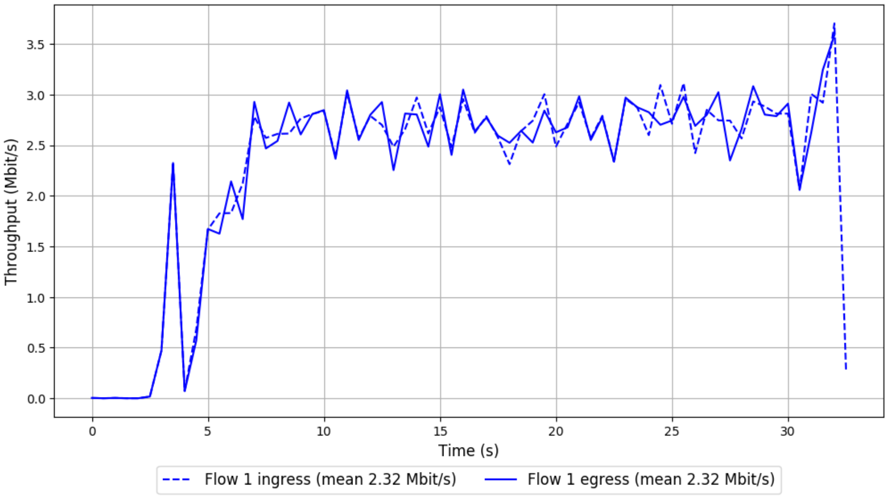
Run 10: Report of SCReAM — Data Link

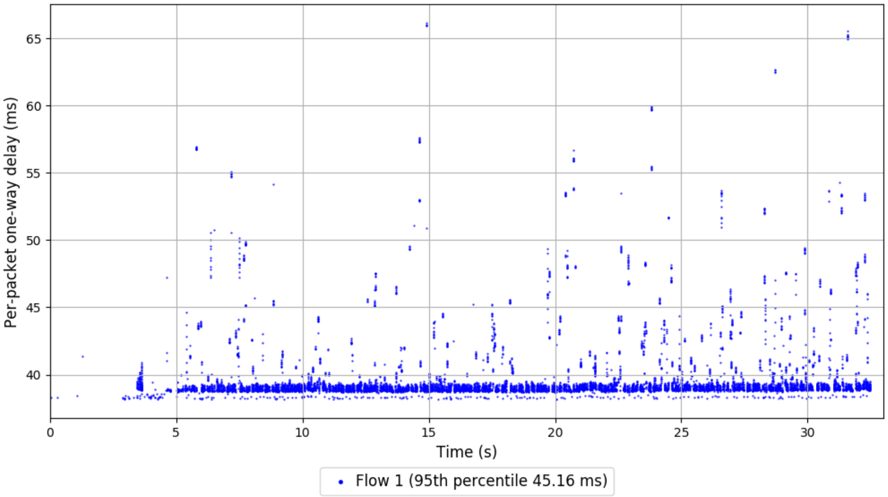




```
Run 1: Statistics of WebRTC media

Start at: 2017-12-01 01:12:32
End at: 2017-12-01 01:13:02
Local clock offset: -0.568 ms
Remote clock offset: -6.632 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 45.163 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 45.163 ms
Loss rate: 0.40%
```

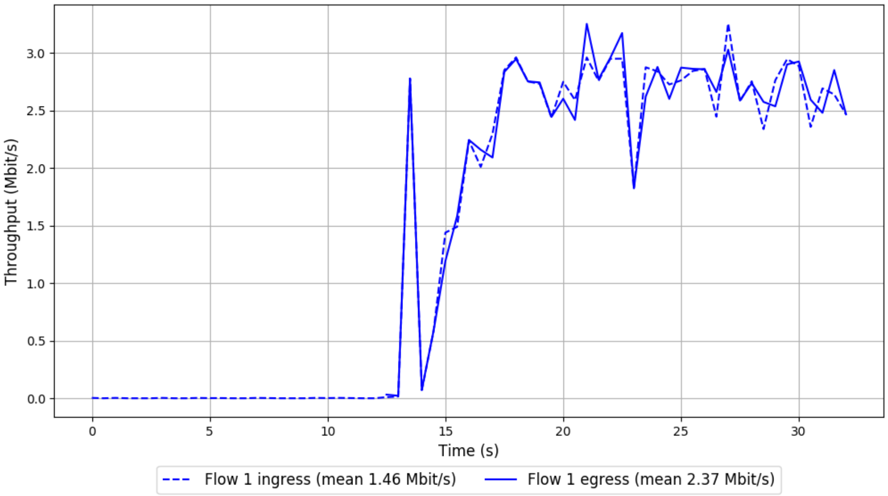
Run 1: Report of WebRTC media — Data Link

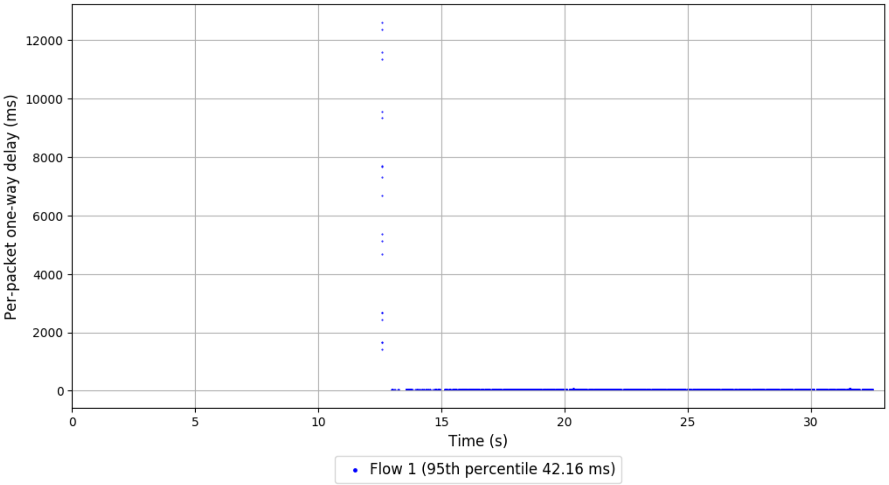




```
Run 2: Statistics of WebRTC media

Start at: 2017-12-01 01:29:11
End at: 2017-12-01 01:29:41
Local clock offset: -0.368 ms
Remote clock offset: -6.524 ms
```

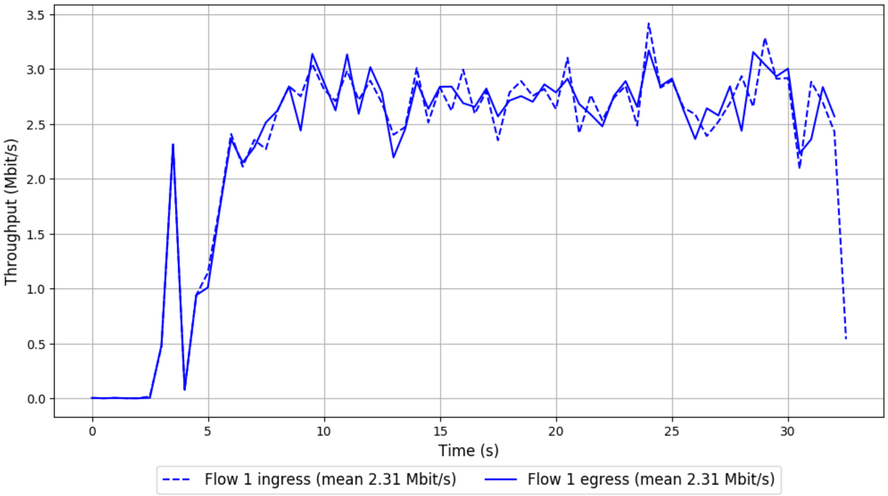
Run 2: Report of WebRTC media — Data Link

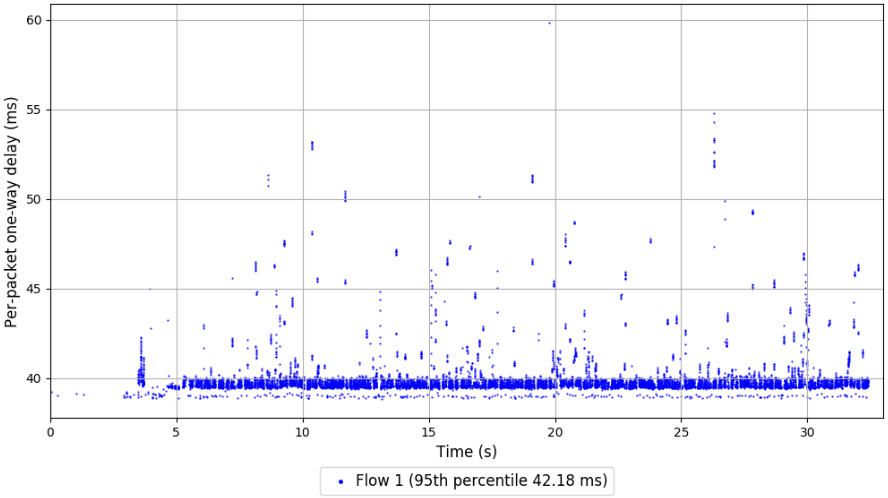




```
Run 3: Statistics of WebRTC media

Start at: 2017-12-01 01:46:05
End at: 2017-12-01 01:46:35
Local clock offset: -0.375 ms
Remote clock offset: -6.425 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 42.178 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 42.178 ms
Loss rate: 0.52%
```

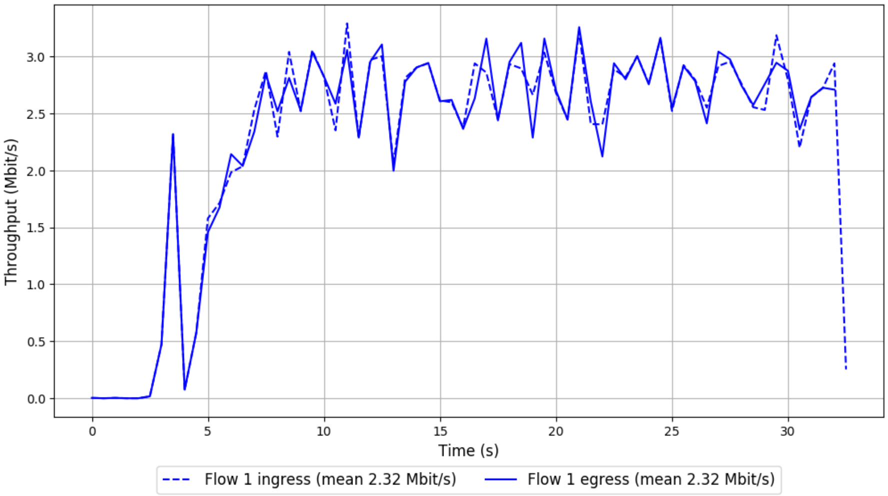
Run 3: Report of WebRTC media — Data Link

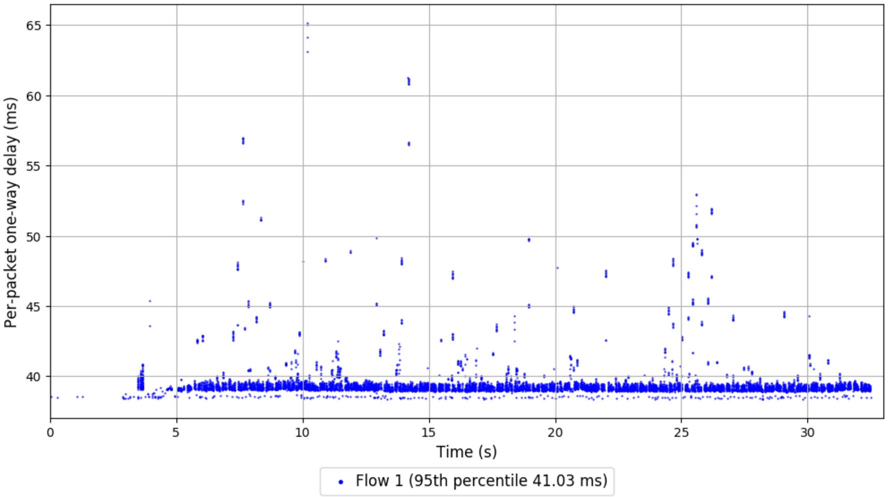




```
Run 4: Statistics of WebRTC media

Start at: 2017-12-01 02:02:51
End at: 2017-12-01 02:03:22
Local clock offset: -0.376 ms
Remote clock offset: -6.292 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 41.027 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 41.027 ms
Loss rate: 0.32%
```

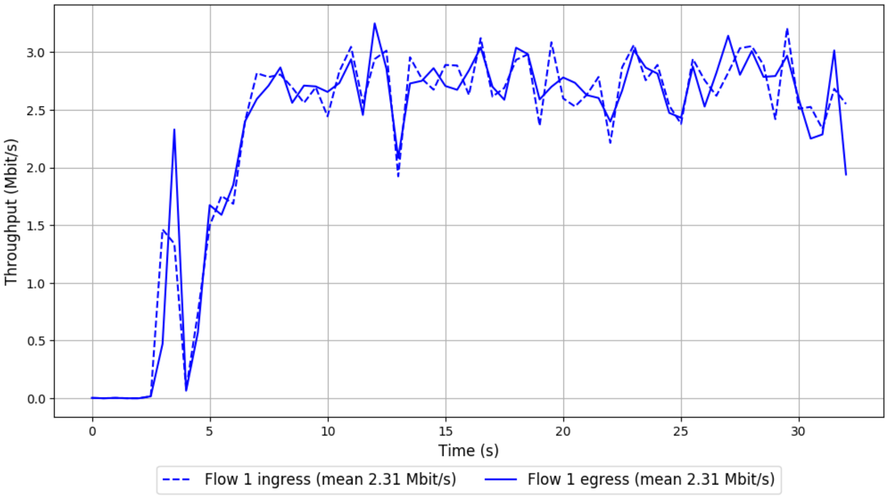
Run 4: Report of WebRTC media — Data Link

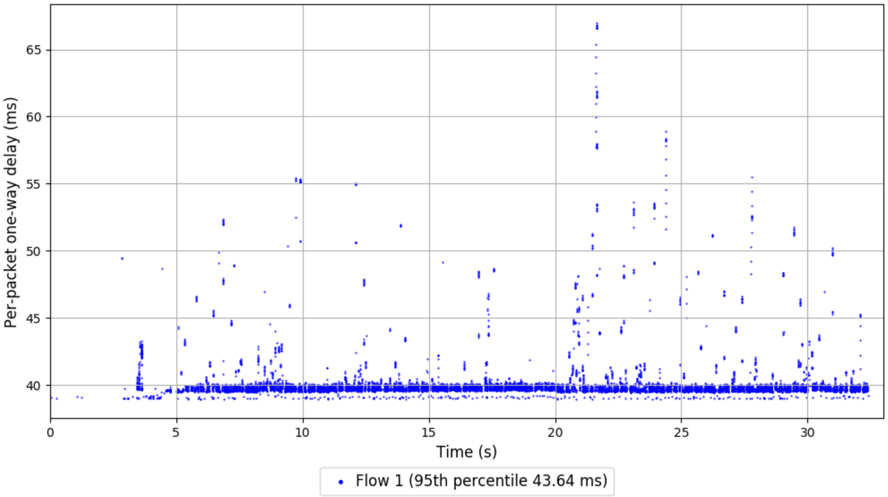




```
Run 5: Statistics of WebRTC media

Start at: 2017-12-01 02:19:45
End at: 2017-12-01 02:20:15
Local clock offset: -0.017 ms
Remote clock offset: -6.246 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 43.644 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 43.644 ms
Loss rate: 0.51%
```

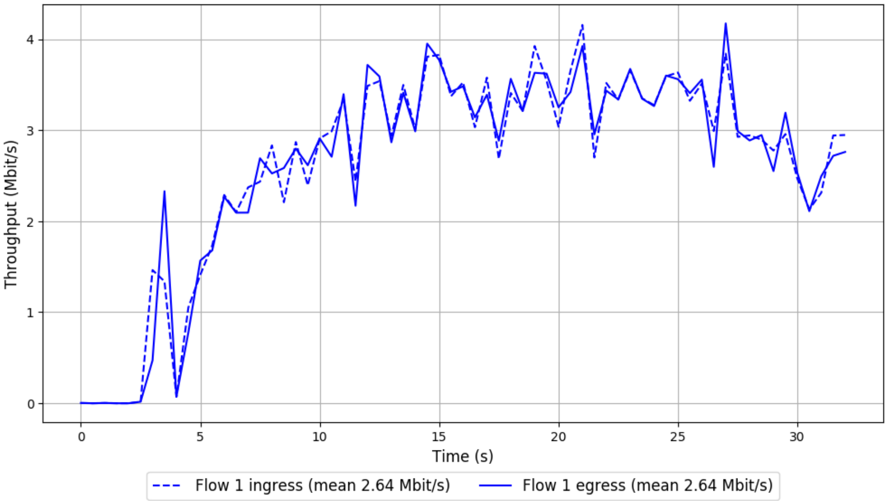
Run 5: Report of WebRTC media — Data Link

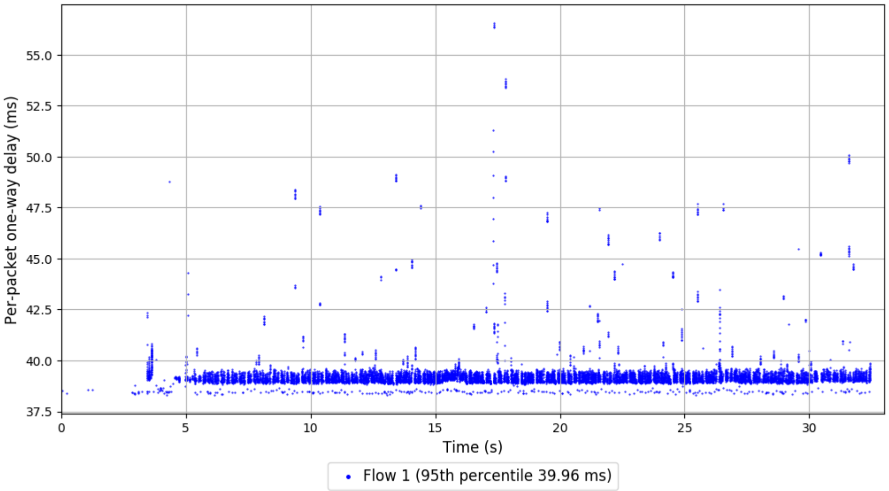




```
Run 6: Statistics of WebRTC media

Start at: 2017-12-01 02:36:26
End at: 2017-12-01 02:36:56
Local clock offset: -0.167 ms
Remote clock offset: -6.148 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 39.964 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 39.964 ms
Loss rate: 0.25%
```

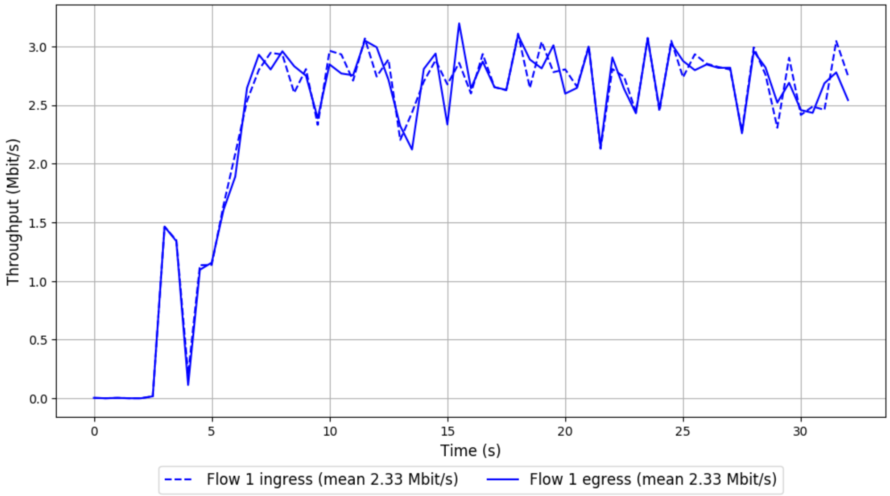
Run 6: Report of WebRTC media — Data Link

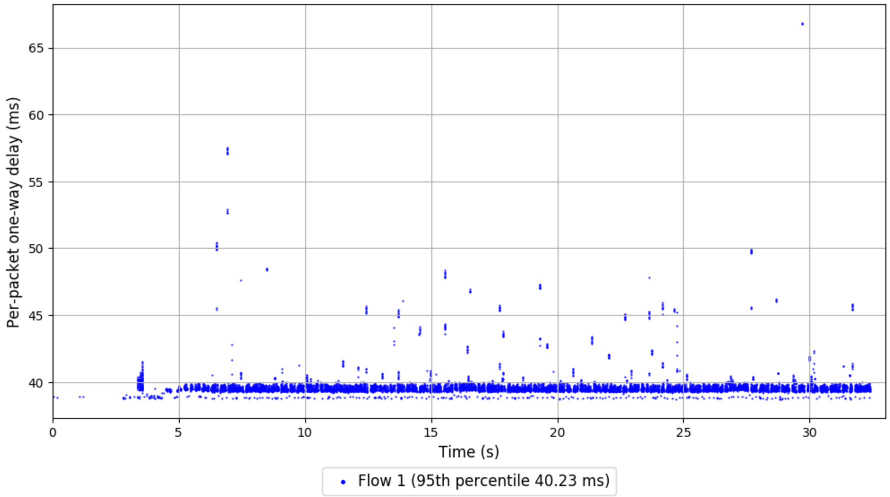




```
Run 7: Statistics of WebRTC media

Start at: 2017-12-01 02:53:15
End at: 2017-12-01 02:53:45
Local clock offset: 0.113 ms
Remote clock offset: -6.116 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 40.230 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 40.230 ms
Loss rate: 0.31%
```

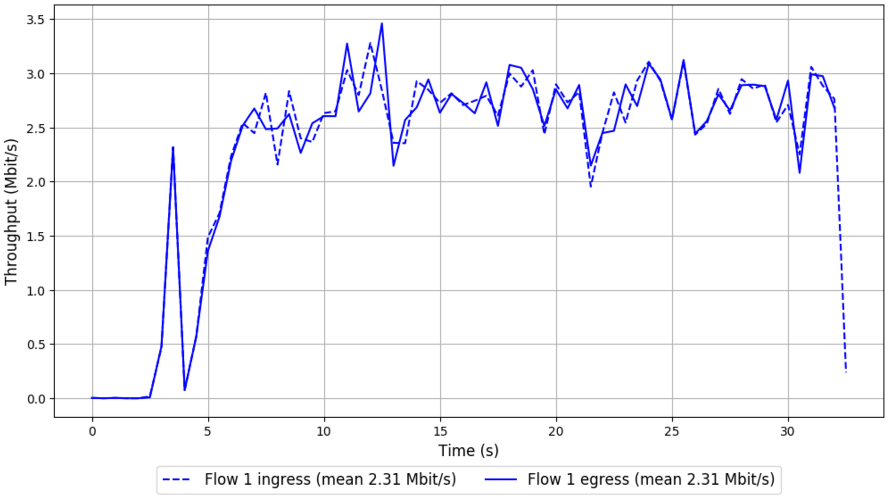
Run 7: Report of WebRTC media — Data Link

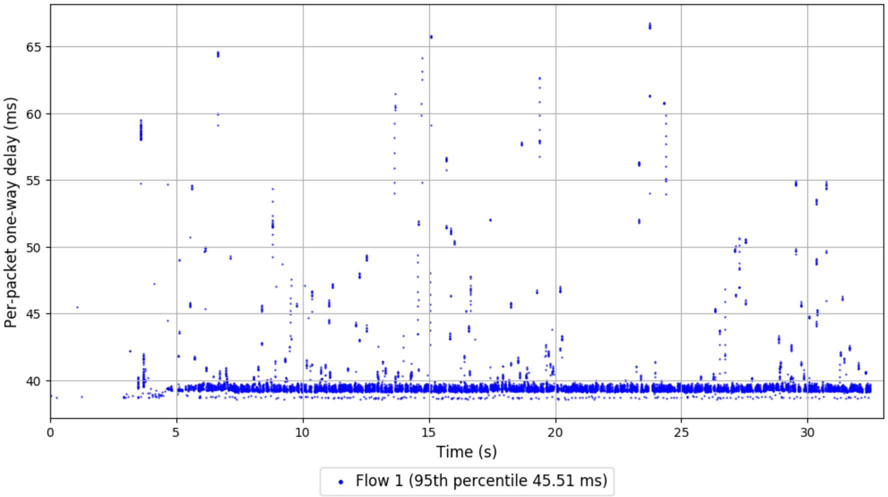




```
Run 8: Statistics of WebRTC media

Start at: 2017-12-01 03:09:59
End at: 2017-12-01 03:10:29
Local clock offset: 0.032 ms
Remote clock offset: -6.273 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 45.505 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 45.505 ms
Loss rate: 0.31%
```

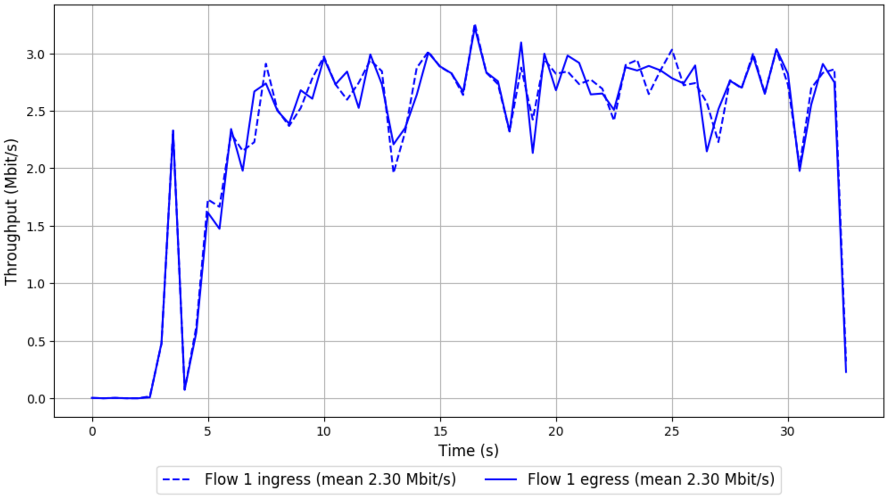
Run 8: Report of WebRTC media — Data Link

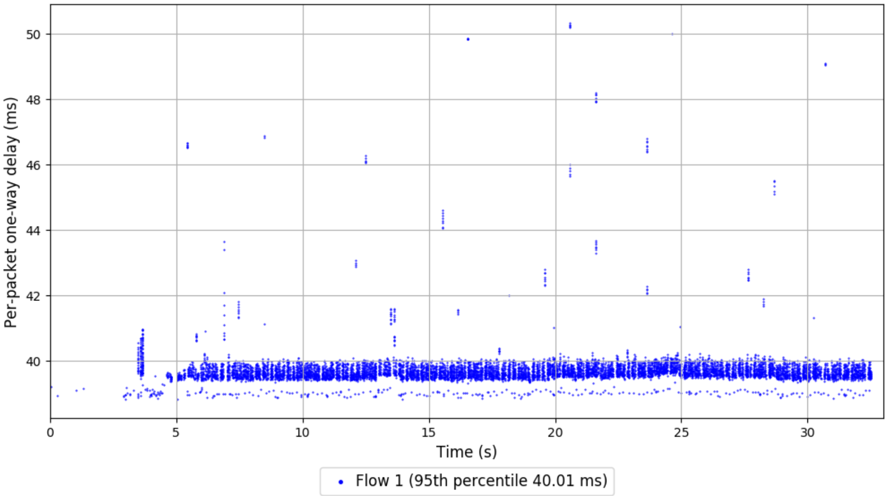




```
Run 9: Statistics of WebRTC media

Start at: 2017-12-01 03:26:37
End at: 2017-12-01 03:27:07
Local clock offset: -0.197 ms
Remote clock offset: -6.32 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 40.014 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 40.014 ms
Loss rate: 0.31%
```

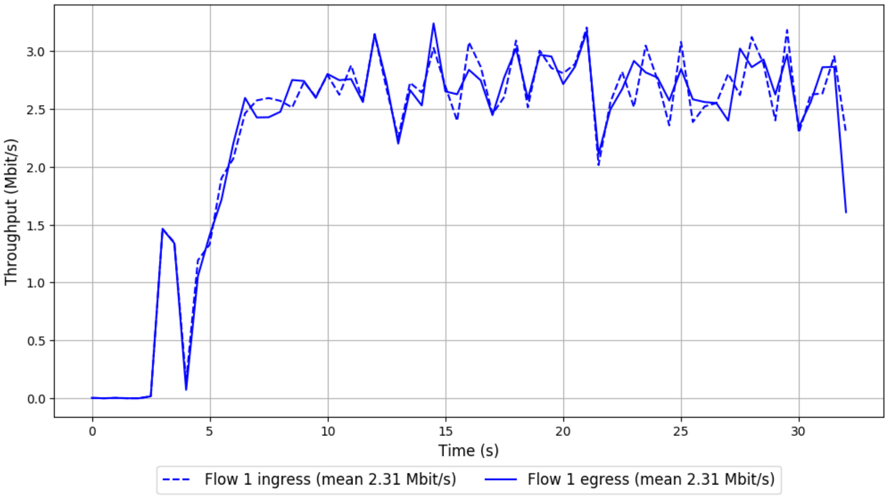
Run 9: Report of WebRTC media — Data Link

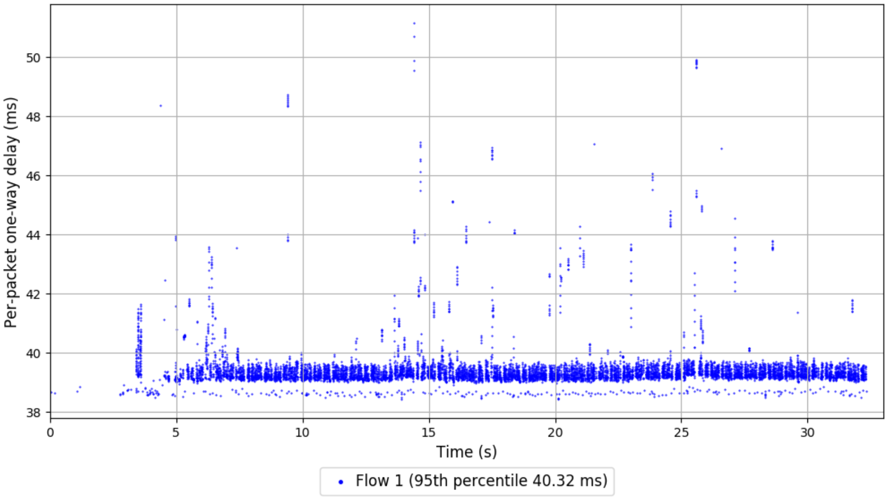




```
Run 10: Statistics of WebRTC media

Start at: 2017-12-01 03:43:34
End at: 2017-12-01 03:44:04
Local clock offset: -0.271 ms
Remote clock offset: -6.274 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 40.317 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 40.317 ms
Loss rate: 0.52%
```

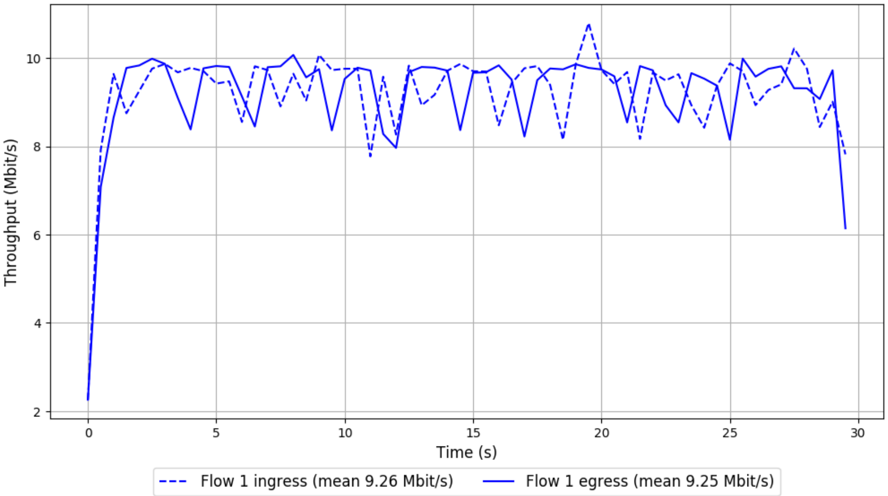
Run 10: Report of WebRTC media — Data Link

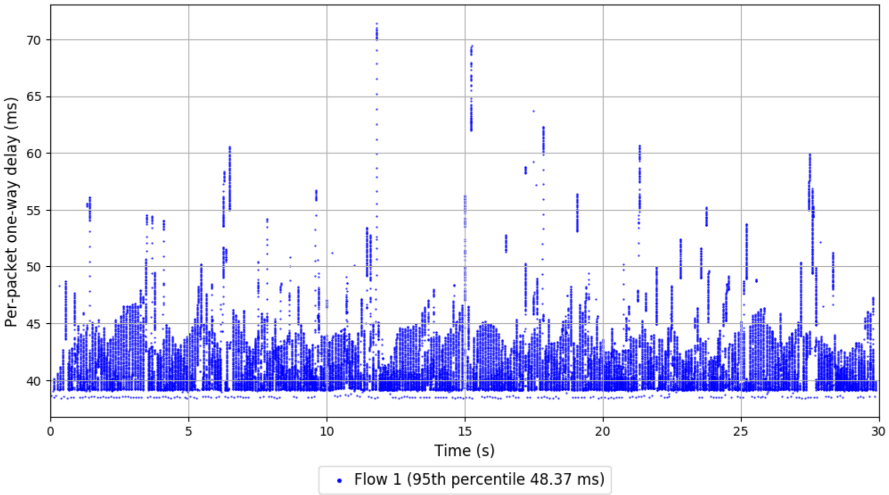




```
Run 1: Statistics of Sprout

Start at: 2017-12-01 01:11:23
End at: 2017-12-01 01:11:53
Local clock offset: -0.775 ms
Remote clock offset: -6.732 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 48.365 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 48.365 ms
Loss rate: 0.35%
```

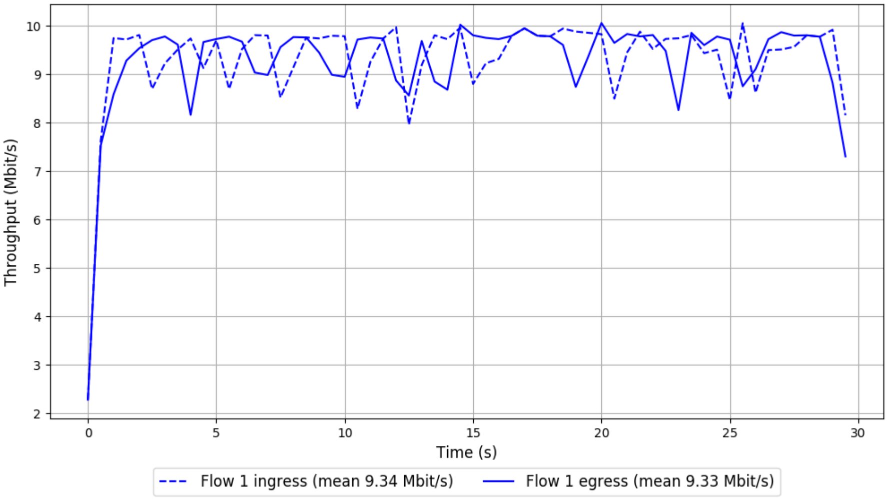
Run 1: Report of Sprout — Data Link

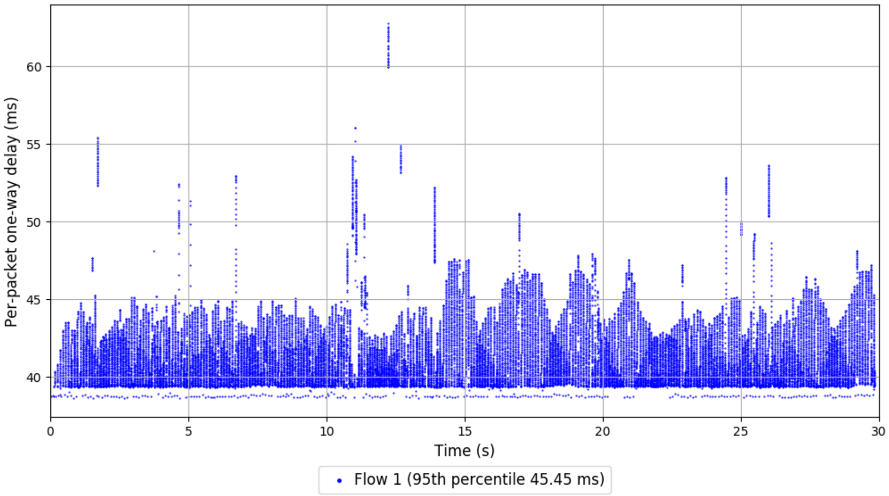




```
Run 2: Statistics of Sprout

Start at: 2017-12-01 01:28:02
End at: 2017-12-01 01:28:32
Local clock offset: -0.495 ms
Remote clock offset: -6.546 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 45.454 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 45.454 ms
Loss rate: 0.35%
```

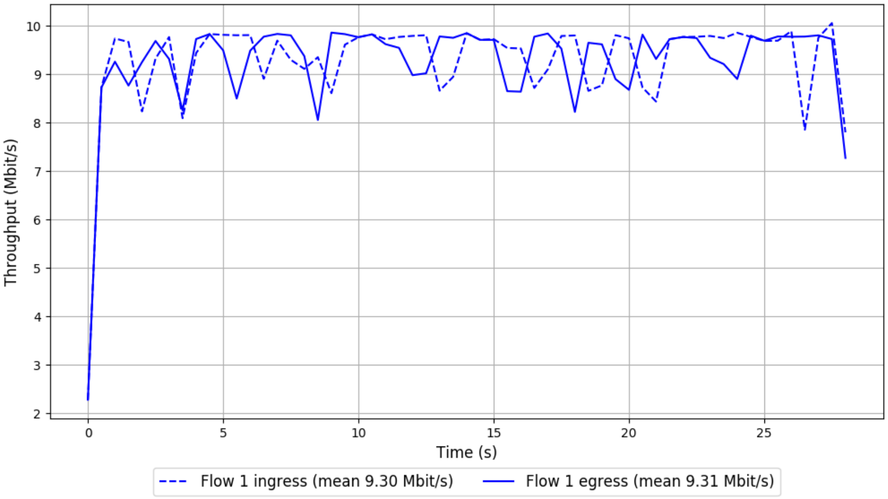
Run 2: Report of Sprout — Data Link

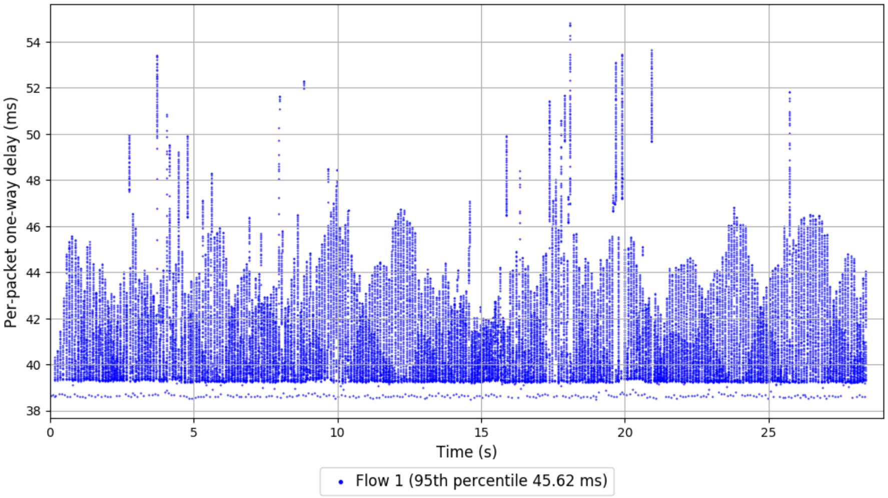




```
Run 3: Statistics of Sprout

Start at: 2017-12-01 01:44:56
End at: 2017-12-01 01:45:26
Local clock offset: -0.521 ms
Remote clock offset: -6.416 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 45.615 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 45.615 ms
Loss rate: 0.16%
```

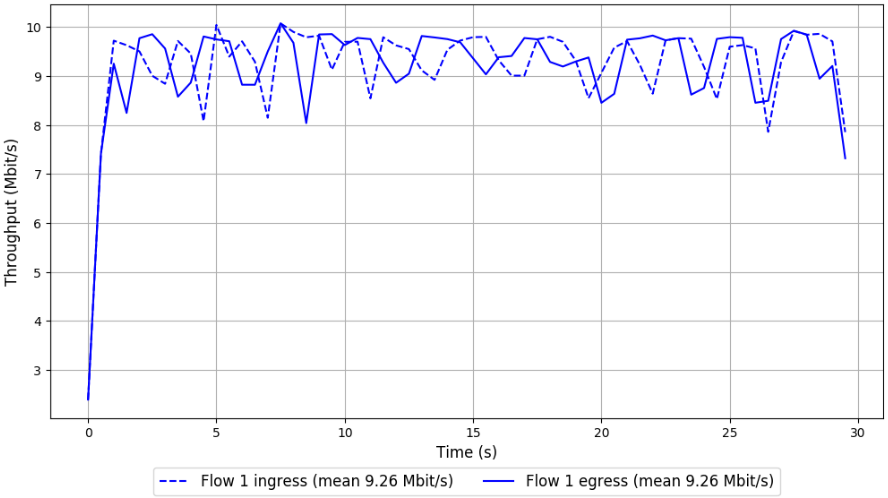
Run 3: Report of Sprout — Data Link

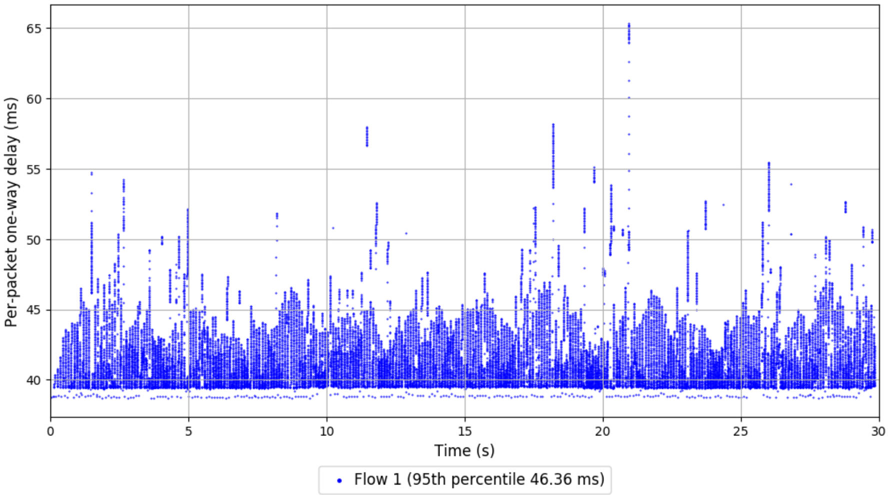




```
Run 4: Statistics of Sprout

Start at: 2017-12-01 02:01:42
End at: 2017-12-01 02:02:13
Local clock offset: -0.1 ms
Remote clock offset: -6.265 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 46.359 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 46.359 ms
Loss rate: 0.35%
```

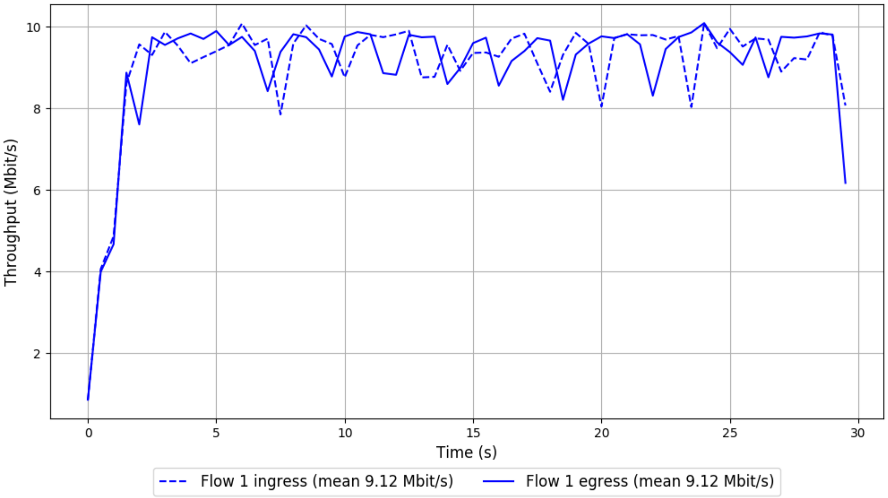
Run 4: Report of Sprout — Data Link

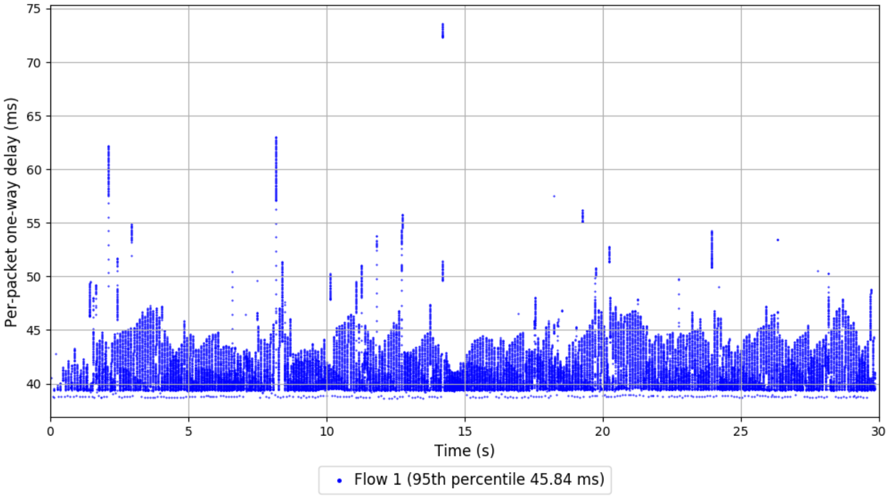




```
Run 5: Statistics of Sprout

Start at: 2017-12-01 02:18:36
End at: 2017-12-01 02:19:06
Local clock offset: -0.103 ms
Remote clock offset: -6.273 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 45.843 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 45.843 ms
Loss rate: 0.35%
```

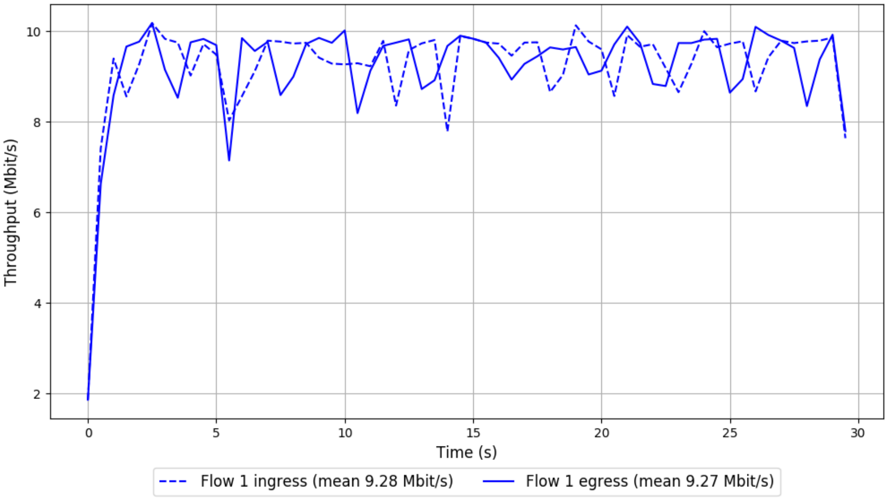
Run 5: Report of Sprout — Data Link

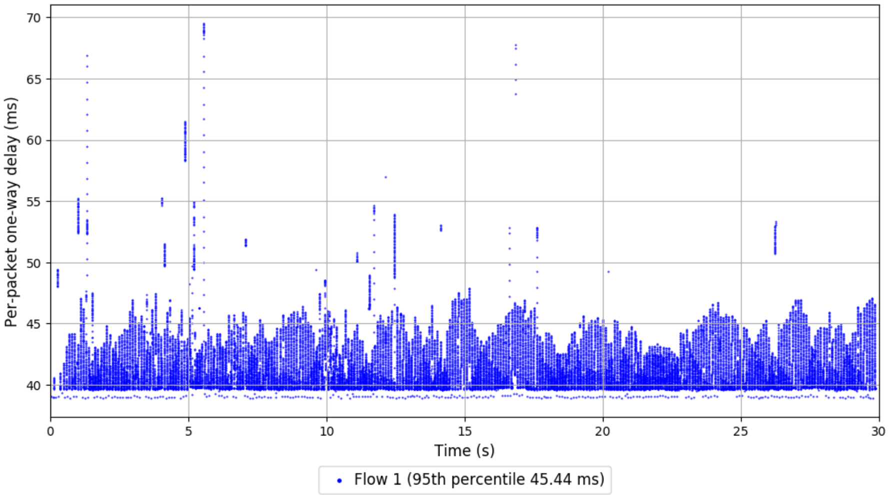




```
Run 6: Statistics of Sprout

Start at: 2017-12-01 02:35:17
End at: 2017-12-01 02:35:47
Local clock offset: -0.066 ms
Remote clock offset: -6.18 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 45.440 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 45.440 ms
Loss rate: 0.33%
```

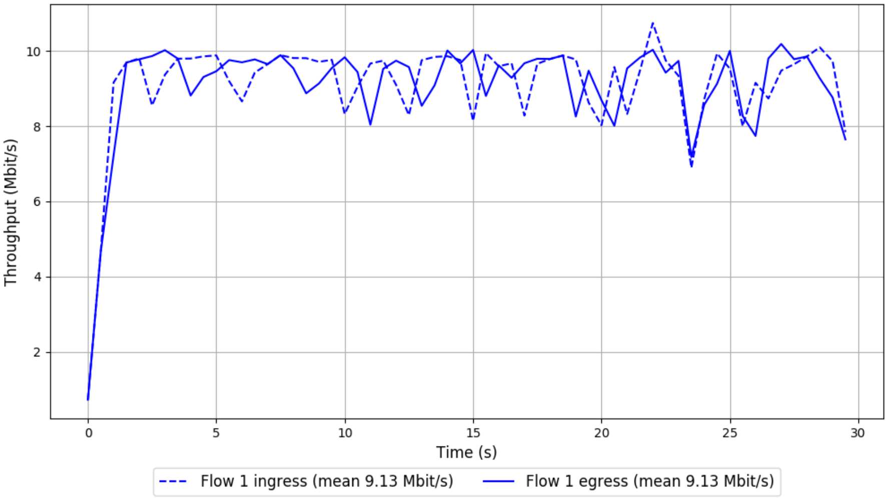
Run 6: Report of Sprout — Data Link

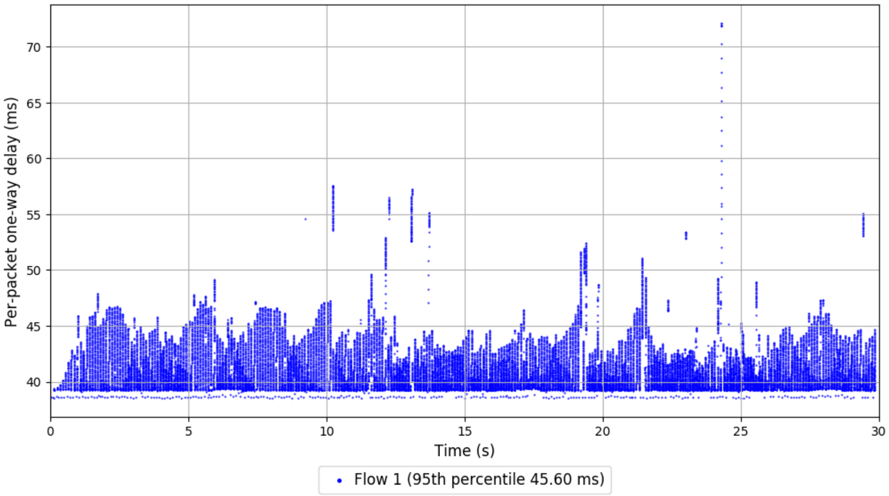




```
Run 7: Statistics of Sprout

Start at: 2017-12-01 02:52:06
End at: 2017-12-01 02:52:36
Local clock offset: -0.025 ms
Remote clock offset: -6.084 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 45.601 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 45.601 ms
Loss rate: 0.38%
```

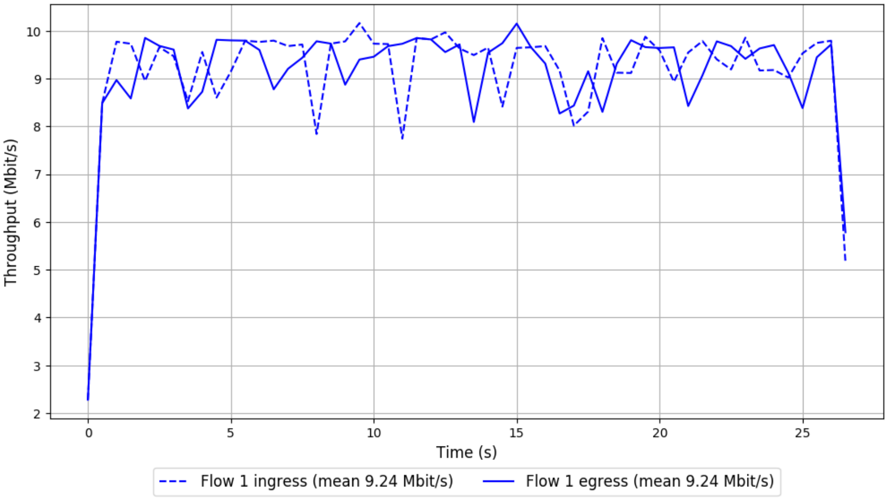
Run 7: Report of Sprout — Data Link

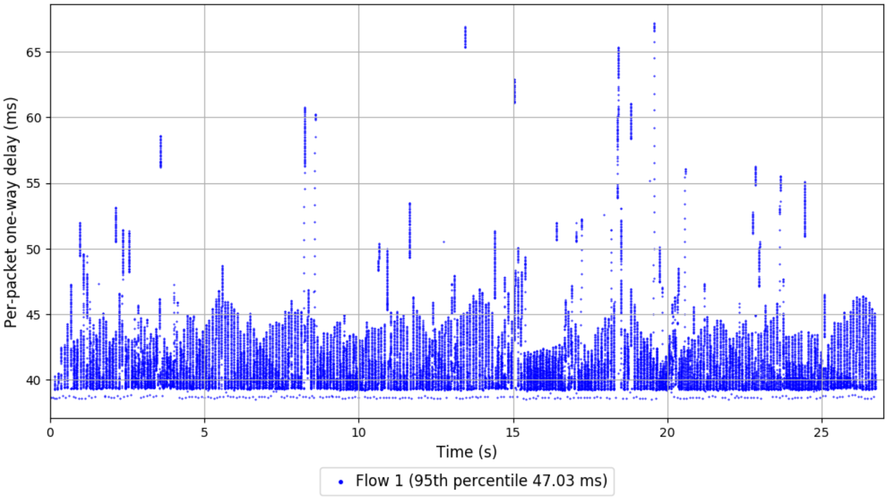




```
Run 8: Statistics of Sprout

Start at: 2017-12-01 03:08:50
End at: 2017-12-01 03:09:20
Local clock offset: -0.17 ms
Remote clock offset: -6.201 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.24 Mbit/s
95th percentile per-packet one-way delay: 47.026 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 9.24 Mbit/s
95th percentile per-packet one-way delay: 47.026 ms
Loss rate: 0.27%
```

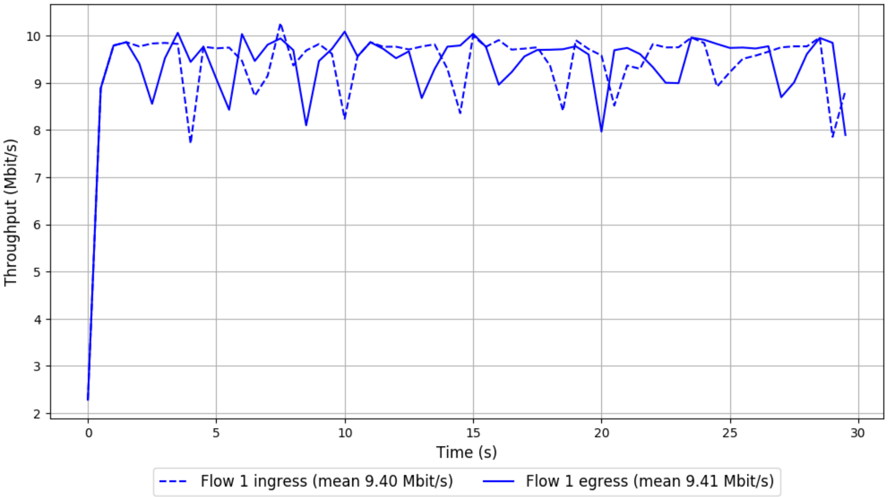
Run 8: Report of Sprout — Data Link

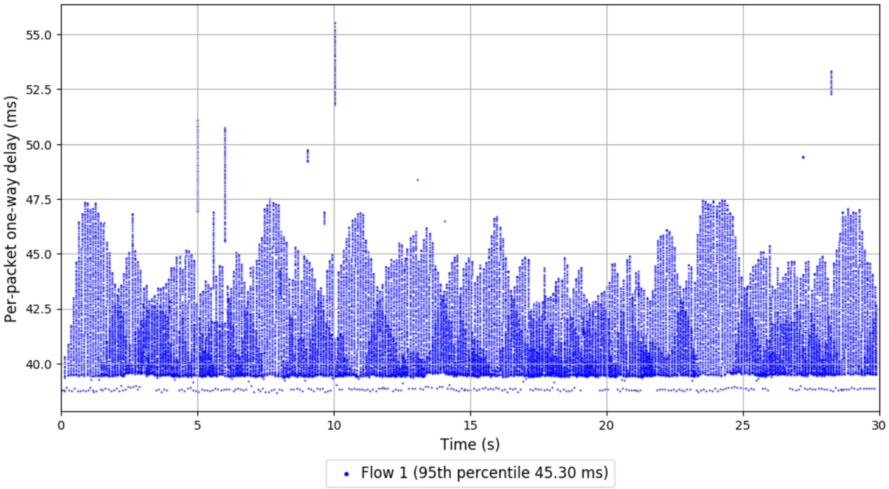




```
Run 9: Statistics of Sprout

Start at: 2017-12-01 03:25:28
End at: 2017-12-01 03:25:58
Local clock offset: -0.213 ms
Remote clock offset: -6.41 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 45.302 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 45.302 ms
Loss rate: 0.17%
```

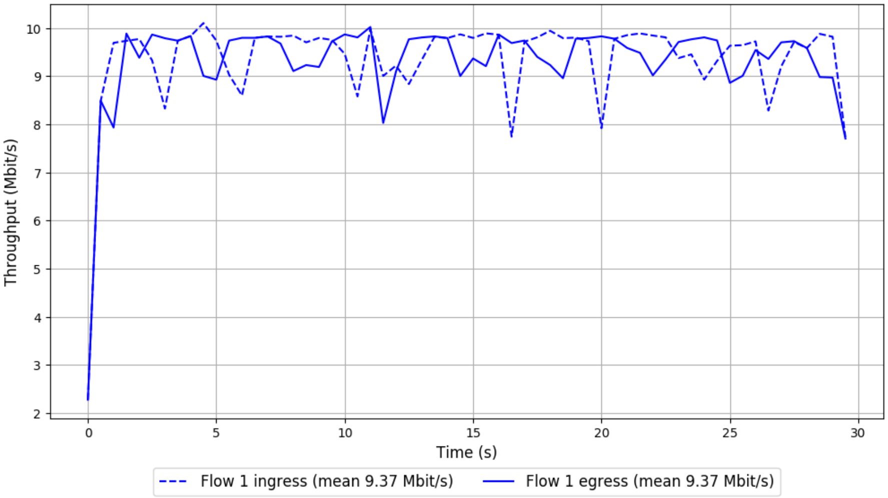
Run 9: Report of Sprout — Data Link

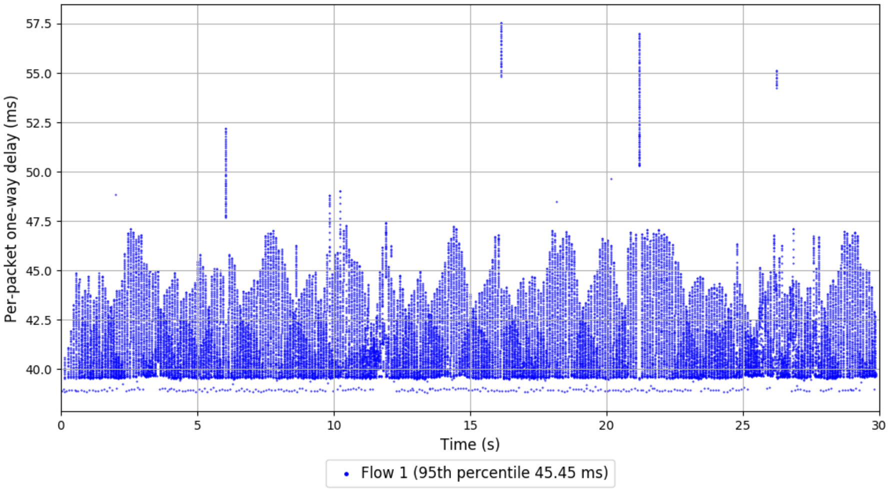




```
Run 10: Statistics of Sprout

Start at: 2017-12-01 03:42:25
End at: 2017-12-01 03:42:55
Local clock offset: -0.323 ms
Remote clock offset: -6.249 ms

# Below is generated by plot.py at 2017-12-01 06:51:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 45.445 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 45.445 ms
Loss rate: 0.32%
```

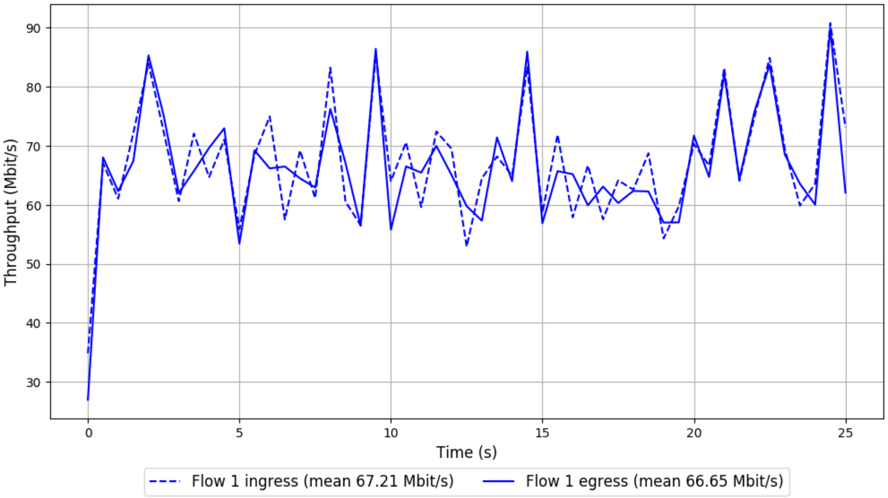
Run 10: Report of Sprout — Data Link

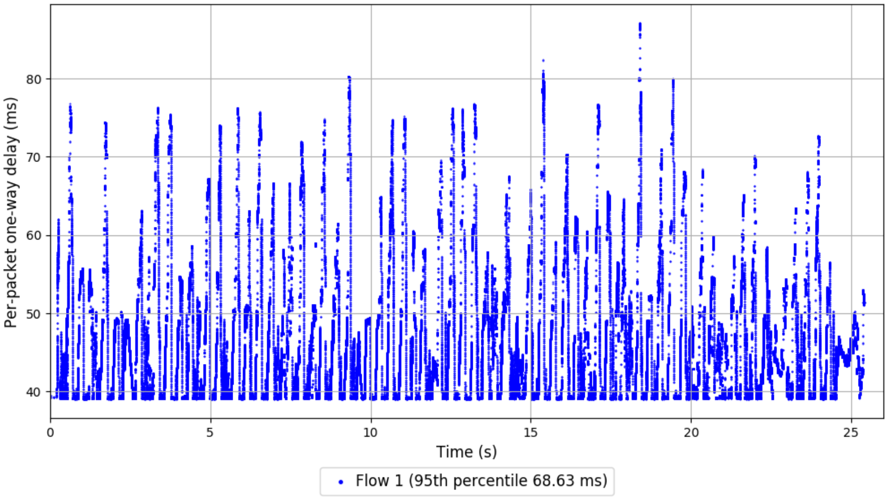




```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-01 01:06:30
End at: 2017-12-01 01:07:00
Local clock offset: -0.834 ms
Remote clock offset: -6.747 ms

# Below is generated by plot.py at 2017-12-01 06:52:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.65 Mbit/s
95th percentile per-packet one-way delay: 68.629 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 66.65 Mbit/s
95th percentile per-packet one-way delay: 68.629 ms
Loss rate: 1.27%
```

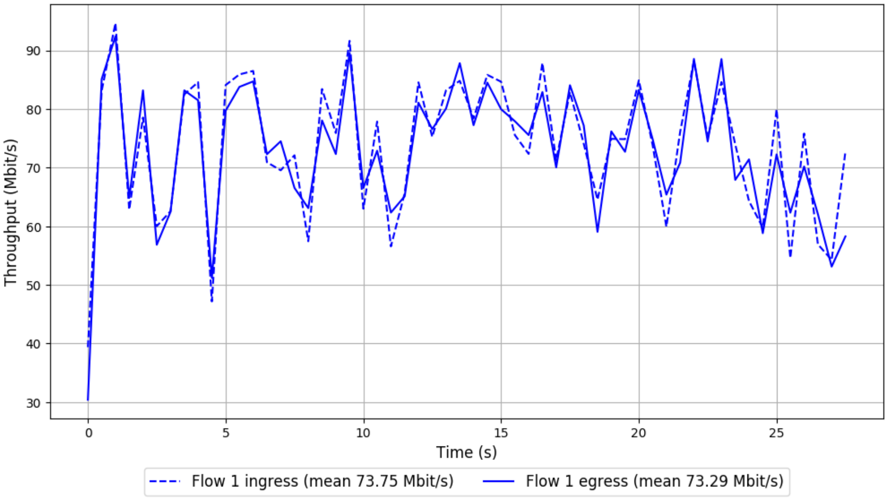
Run 1: Report of TaoVA-100x — Data Link

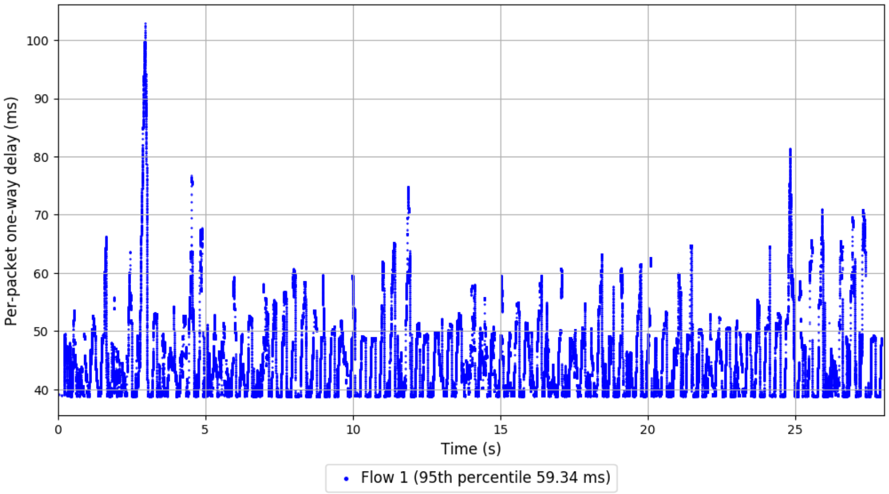




```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-01 01:23:09
End at: 2017-12-01 01:23:39
Local clock offset: -0.571 ms
Remote clock offset: -6.638 ms

# Below is generated by plot.py at 2017-12-01 06:53:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.29 Mbit/s
95th percentile per-packet one-way delay: 59.338 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 73.29 Mbit/s
95th percentile per-packet one-way delay: 59.338 ms
Loss rate: 0.92%
```

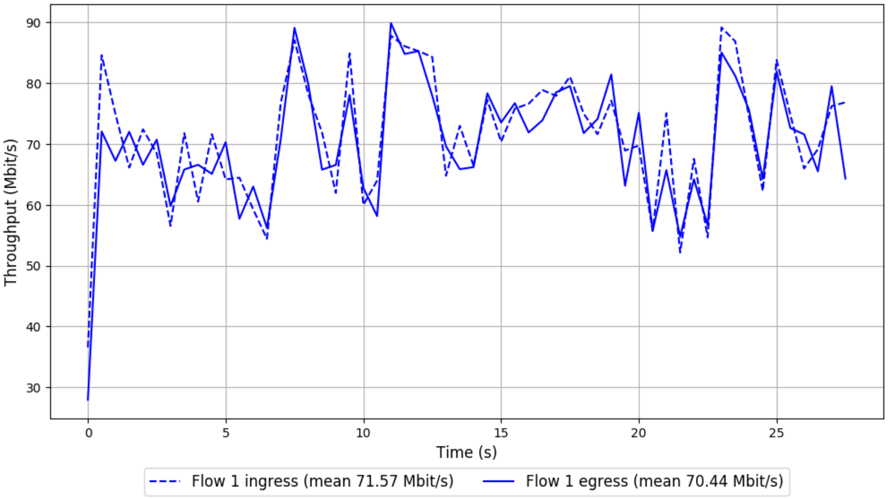
Run 2: Report of TaoVA-100x — Data Link

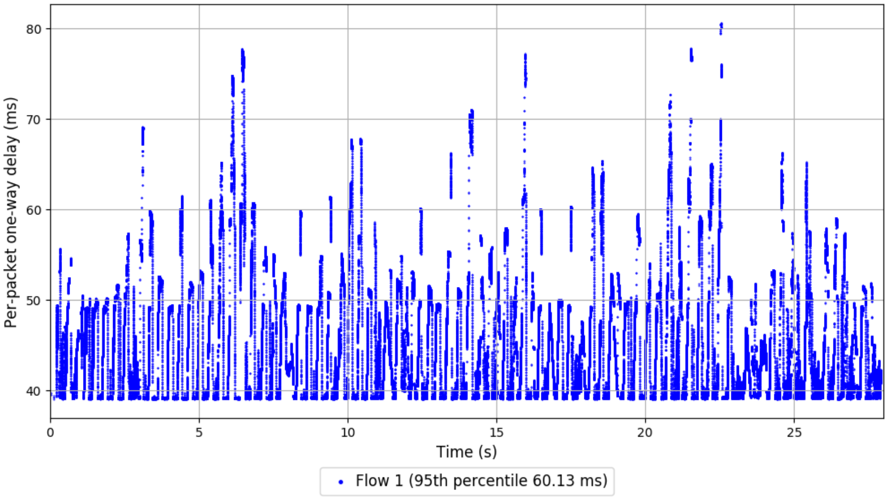




```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-01 01:39:59
End at: 2017-12-01 01:40:29
Local clock offset: -0.568 ms
Remote clock offset: -6.511 ms

# Below is generated by plot.py at 2017-12-01 06:53:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 60.131 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 60.131 ms
Loss rate: 1.87%
```

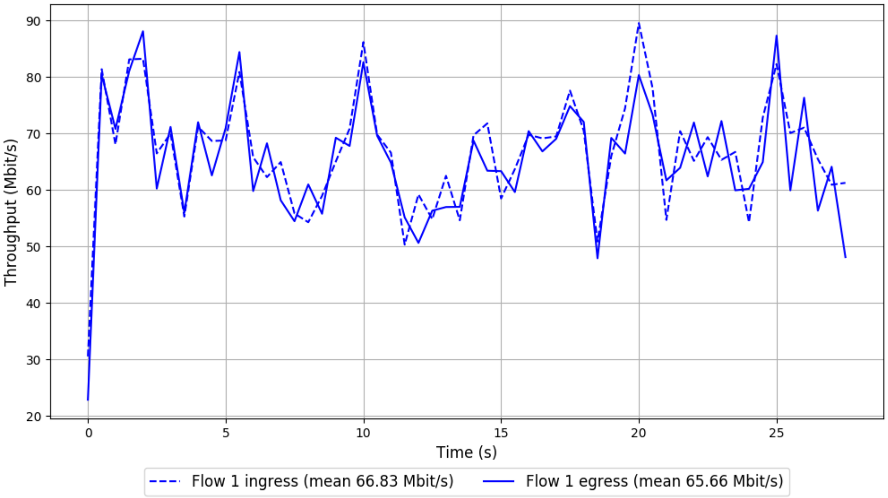
Run 3: Report of TaoVA-100x — Data Link

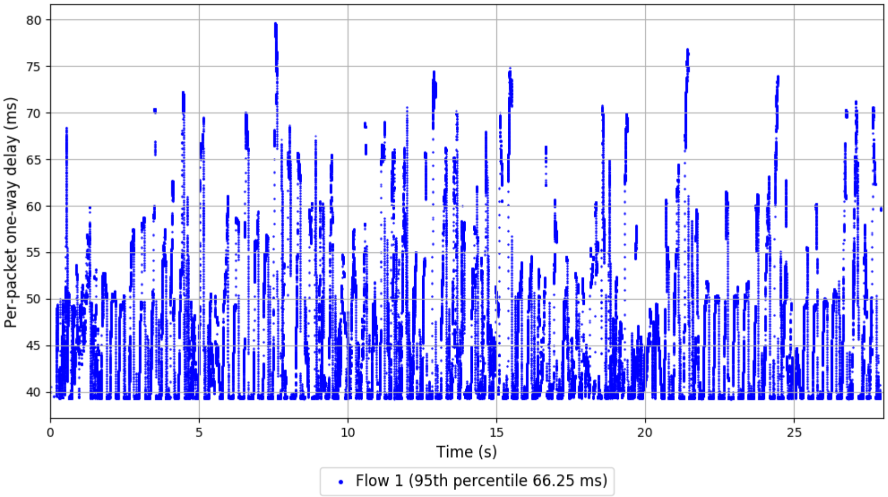




```
Run 4: Statistics of TaoVA-100x

Start at: 2017-12-01 01:56:42
End at: 2017-12-01 01:57:12
Local clock offset: -0.15 ms
Remote clock offset: -6.344 ms

# Below is generated by plot.py at 2017-12-01 06:53:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.66 Mbit/s
95th percentile per-packet one-way delay: 66.245 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 65.66 Mbit/s
95th percentile per-packet one-way delay: 66.245 ms
Loss rate: 2.01%
```

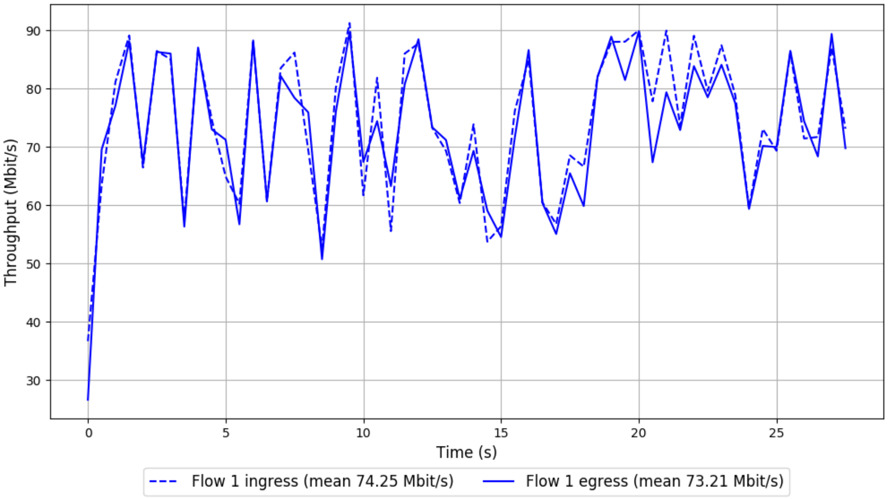
Run 4: Report of TaoVA-100x — Data Link

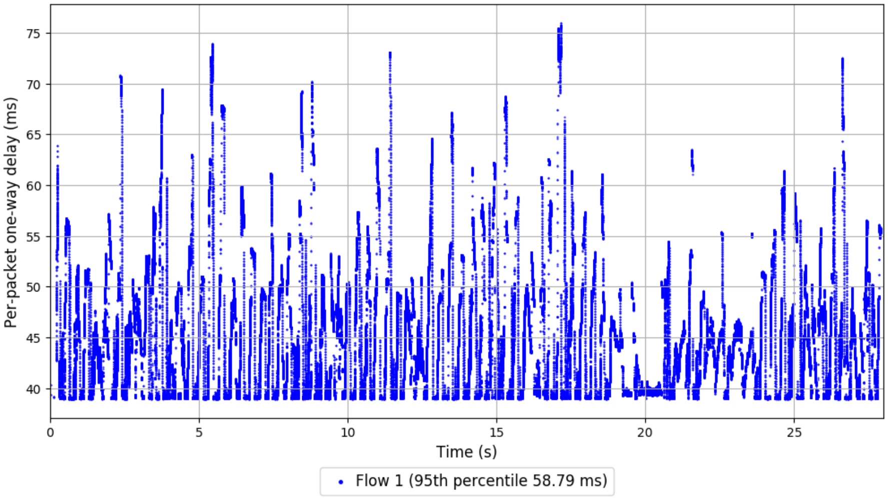




```
Run 5: Statistics of TaoVA-100x

Start at: 2017-12-01 02:13:38
End at: 2017-12-01 02:14:08
Local clock offset: -0.267 ms
Remote clock offset: -6.273 ms

# Below is generated by plot.py at 2017-12-01 06:53:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.21 Mbit/s
95th percentile per-packet one-way delay: 58.787 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 73.21 Mbit/s
95th percentile per-packet one-way delay: 58.787 ms
Loss rate: 1.71%
```

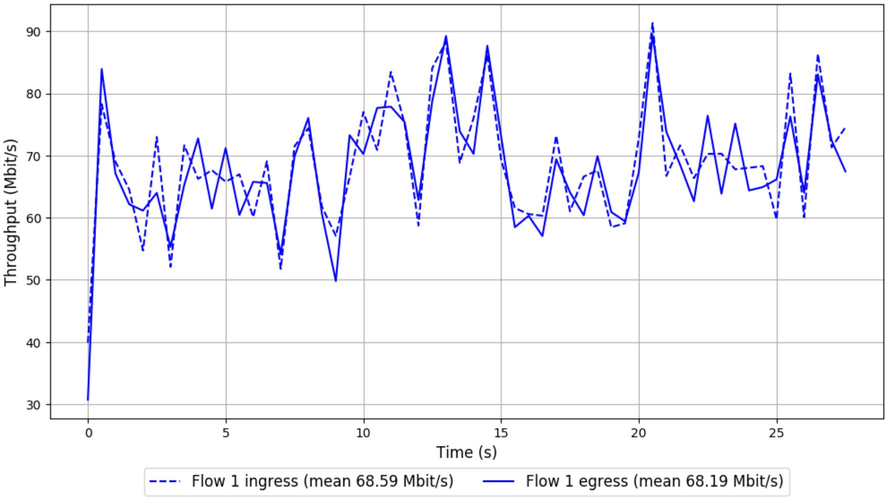
Run 5: Report of TaoVA-100x — Data Link

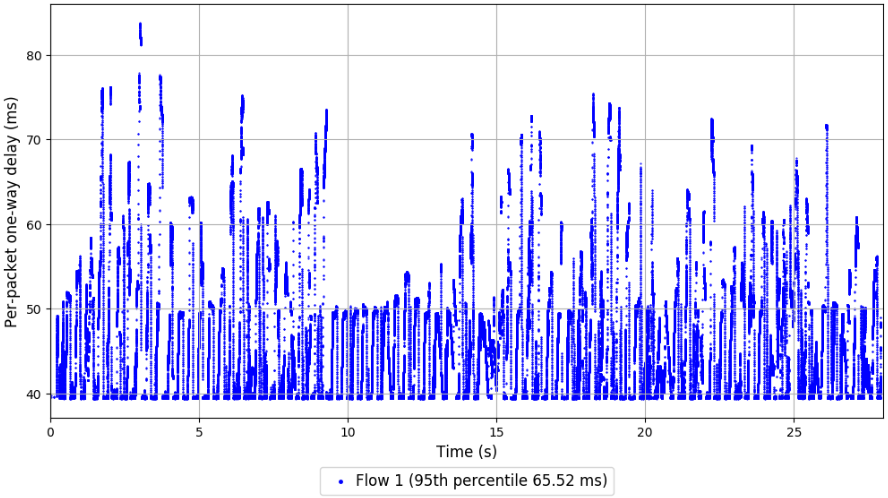




```
Run 6: Statistics of TaoVA-100x

Start at: 2017-12-01 02:30:24
End at: 2017-12-01 02:30:54
Local clock offset: -0.145 ms
Remote clock offset: -6.277 ms

# Below is generated by plot.py at 2017-12-01 06:53:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.19 Mbit/s
95th percentile per-packet one-way delay: 65.519 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 68.19 Mbit/s
95th percentile per-packet one-way delay: 65.519 ms
Loss rate: 0.89%
```

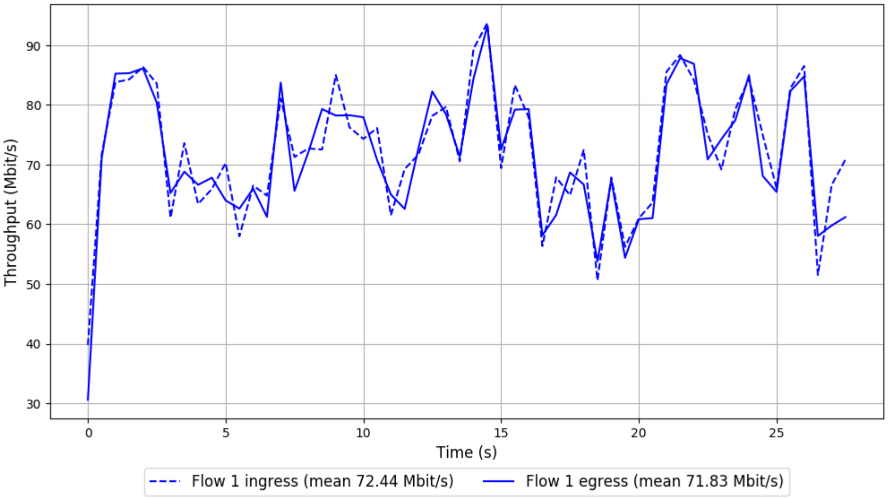
Run 6: Report of TaoVA-100x — Data Link

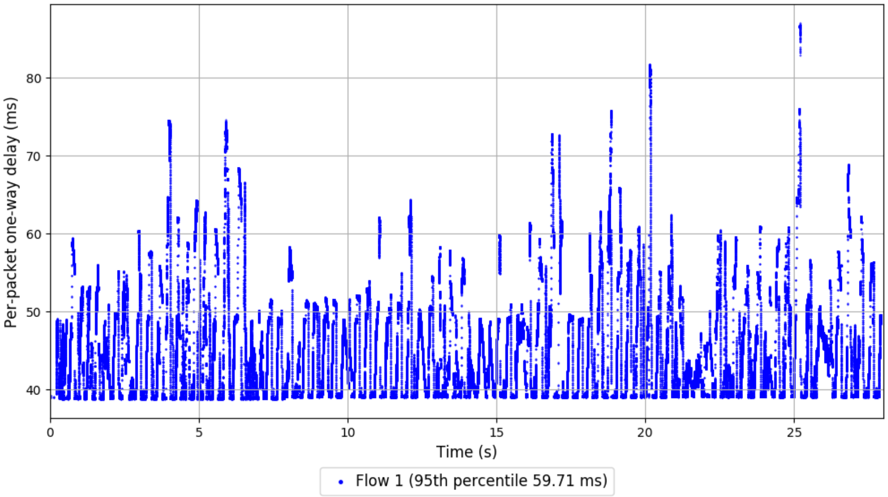




```
Run 7: Statistics of TaoVA-100x

Start at: 2017-12-01 02:47:10
End at: 2017-12-01 02:47:40
Local clock offset: -0.136 ms
Remote clock offset: -6.065 ms

# Below is generated by plot.py at 2017-12-01 06:53:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.83 Mbit/s
95th percentile per-packet one-way delay: 59.708 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 71.83 Mbit/s
95th percentile per-packet one-way delay: 59.708 ms
Loss rate: 1.16%
```

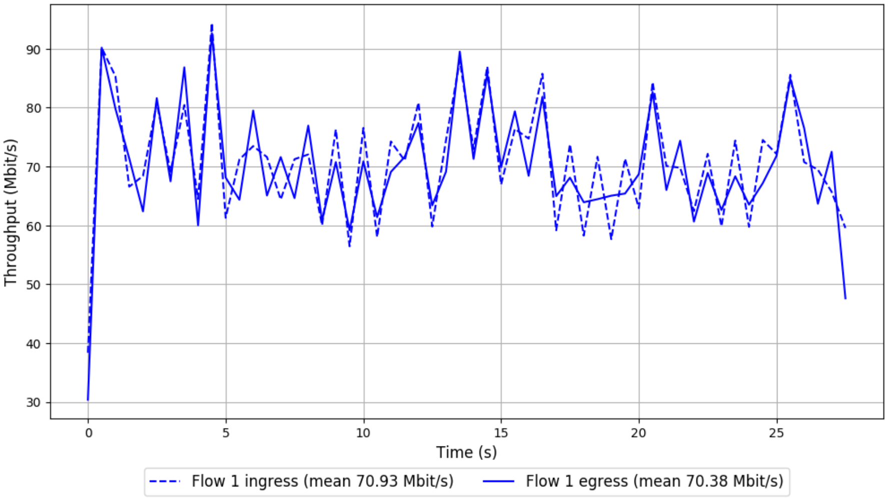
Run 7: Report of TaoVA-100x — Data Link

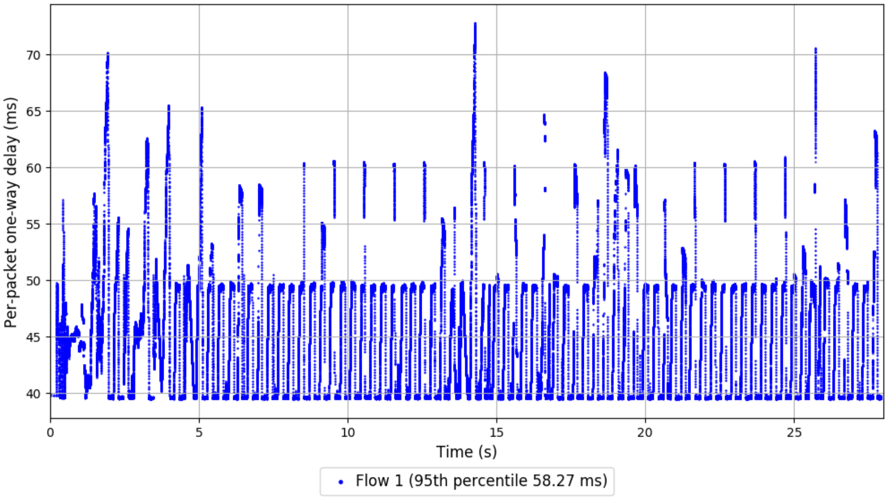




```
Run 8: Statistics of TaoVA-100x

Start at: 2017-12-01 03:03:58
End at: 2017-12-01 03:04:28
Local clock offset: -0.026 ms
Remote clock offset: -6.216 ms

# Below is generated by plot.py at 2017-12-01 06:53:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 58.273 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 58.273 ms
Loss rate: 1.09%
```

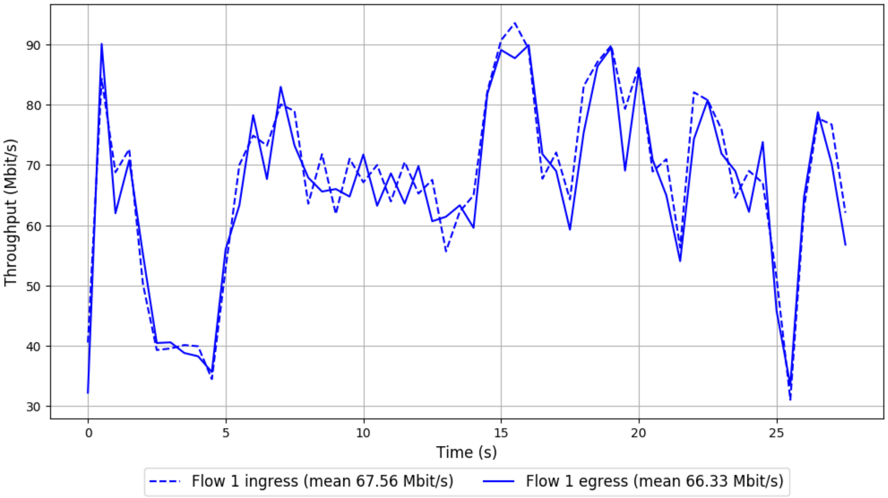
Run 8: Report of TaoVA-100x — Data Link

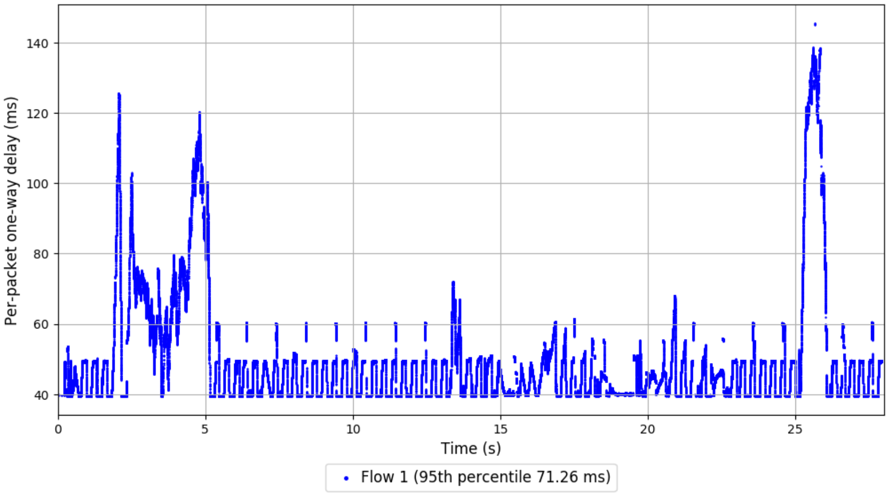




```
Run 9: Statistics of TaoVA-100x

Start at: 2017-12-01 03:20:39
End at: 2017-12-01 03:21:09
Local clock offset: -0.151 ms
Remote clock offset: -6.357 ms

# Below is generated by plot.py at 2017-12-01 06:54:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.33 Mbit/s
95th percentile per-packet one-way delay: 71.259 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 66.33 Mbit/s
95th percentile per-packet one-way delay: 71.259 ms
Loss rate: 2.12%
```

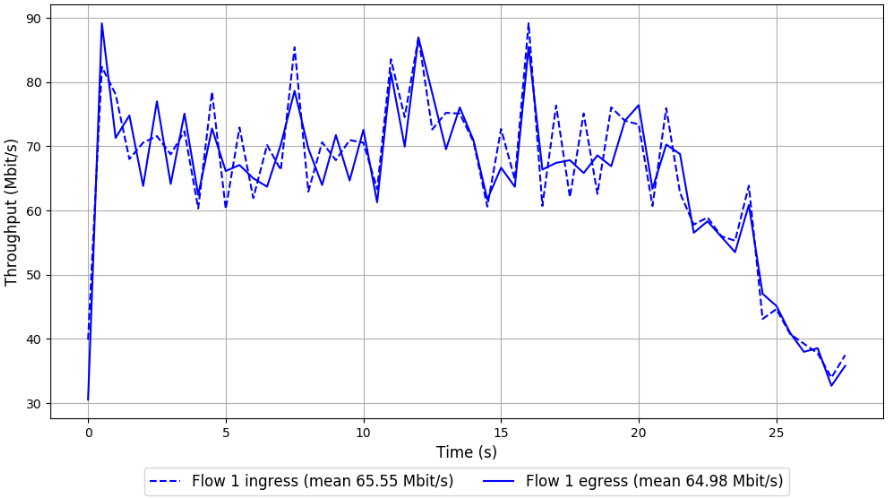
Run 9: Report of TaoVA-100x — Data Link

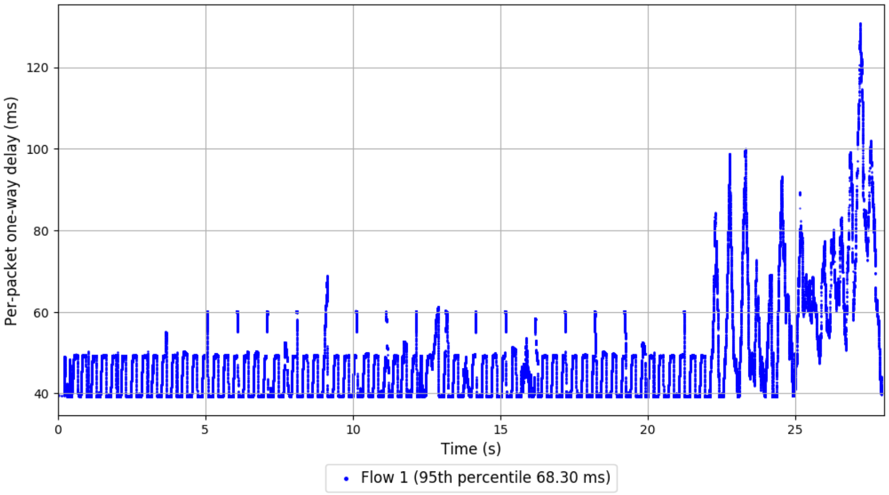




```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-01 03:37:23
End at: 2017-12-01 03:37:53
Local clock offset: -0.156 ms
Remote clock offset: -6.343 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.98 Mbit/s
95th percentile per-packet one-way delay: 68.299 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 64.98 Mbit/s
95th percentile per-packet one-way delay: 68.299 ms
Loss rate: 1.16%
```

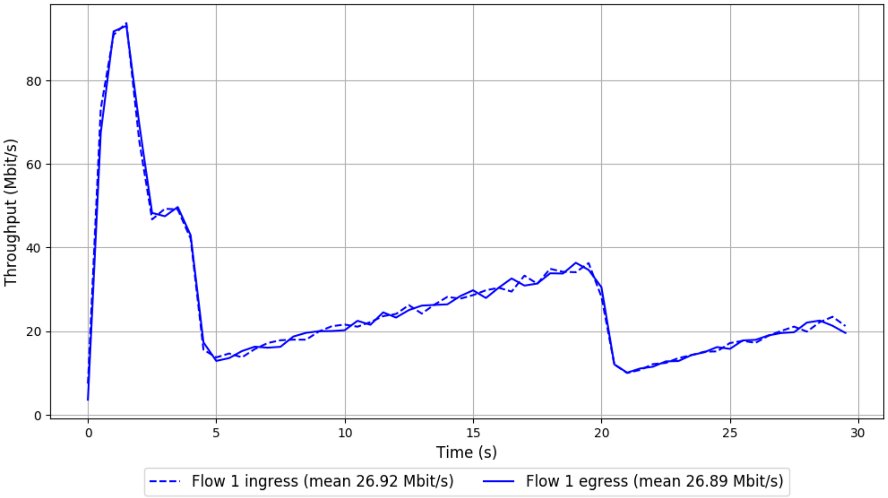
Run 10: Report of TaoVA-100x — Data Link

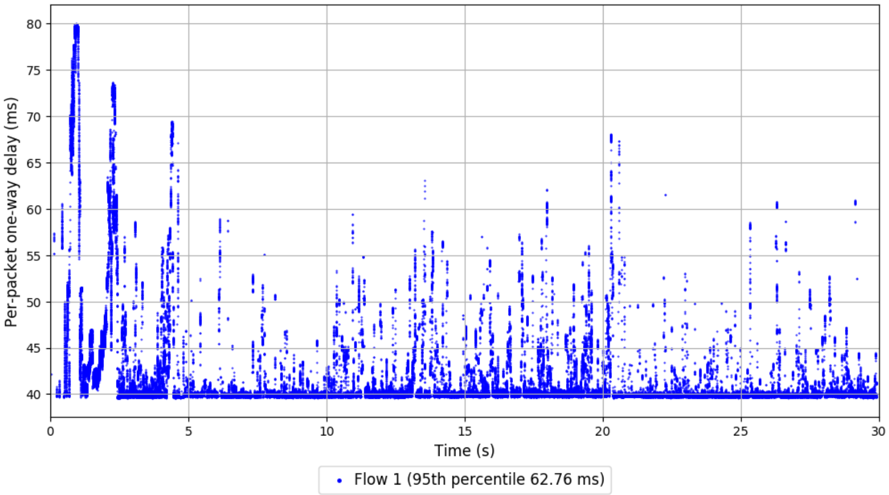




```
Run 1: Statistics of TCP Vegas

Start at: 2017-12-01 01:13:40
End at: 2017-12-01 01:14:10
Local clock offset: -0.522 ms
Remote clock offset: -6.731 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 62.761 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 62.761 ms
Loss rate: 0.40%
```

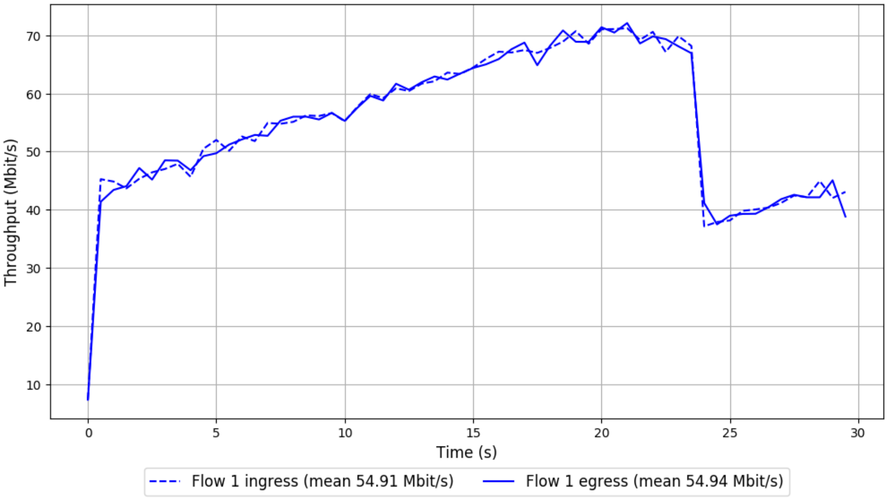
Run 1: Report of TCP Vegas — Data Link

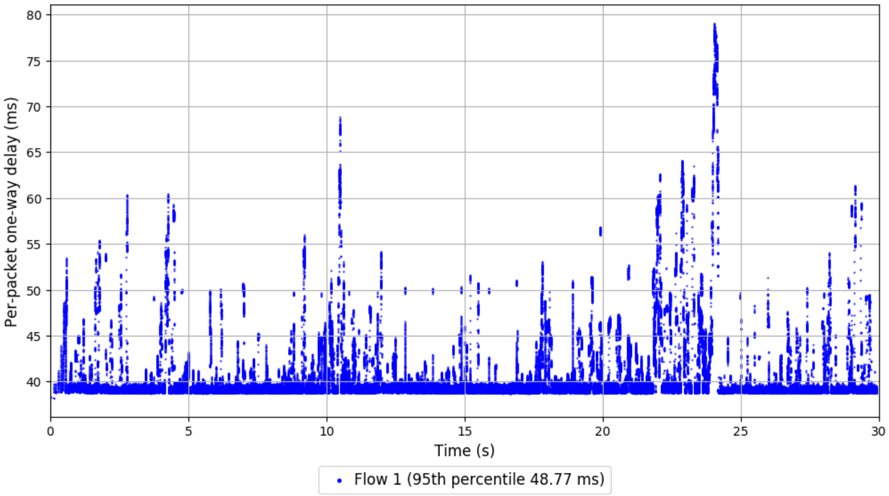




```
Run 2: Statistics of TCP Vegas

Start at: 2017-12-01 01:30:20
End at: 2017-12-01 01:30:50
Local clock offset: -0.512 ms
Remote clock offset: -6.453 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 48.769 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 48.769 ms
Loss rate: 0.24%
```

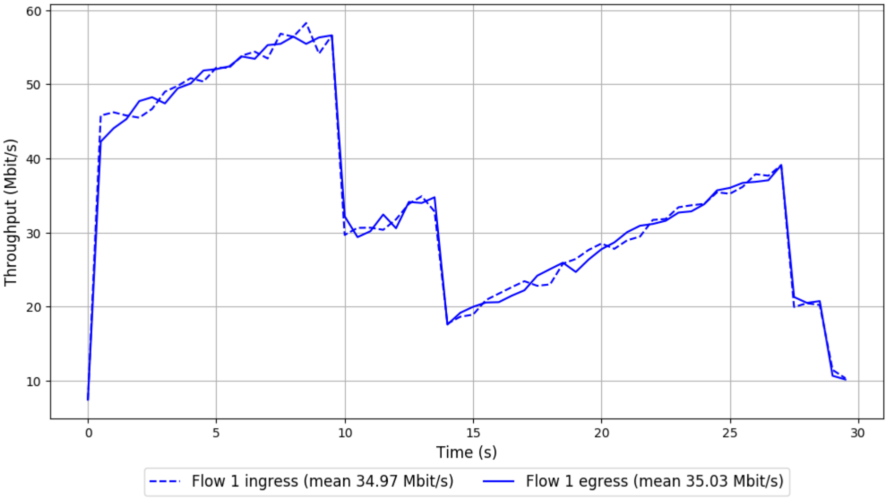
Run 2: Report of TCP Vegas — Data Link

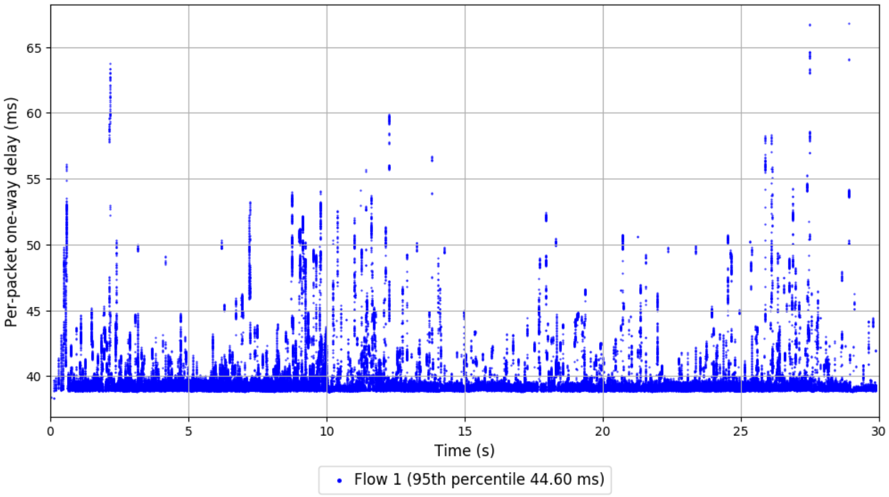




```
Run 3: Statistics of TCP Vegas

Start at: 2017-12-01 01:47:13
End at: 2017-12-01 01:47:43
Local clock offset: -0.377 ms
Remote clock offset: -6.433 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.03 Mbit/s
95th percentile per-packet one-way delay: 44.599 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 35.03 Mbit/s
95th percentile per-packet one-way delay: 44.599 ms
Loss rate: 0.12%
```

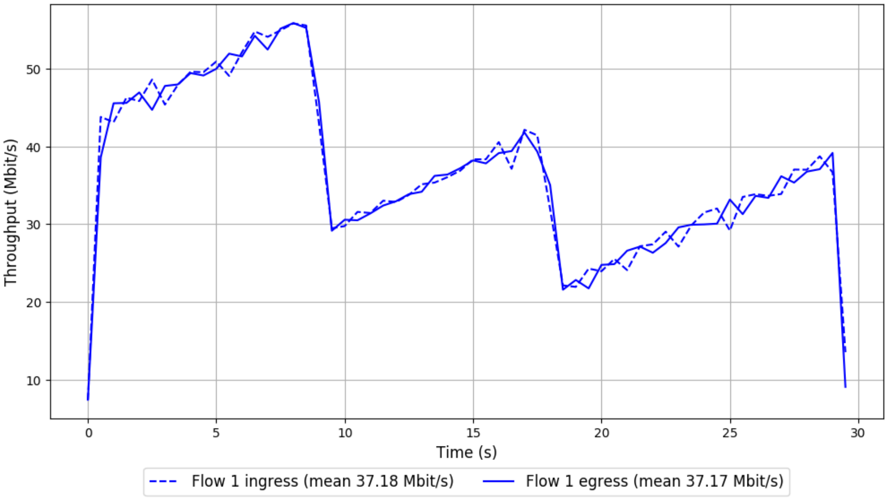
Run 3: Report of TCP Vegas — Data Link

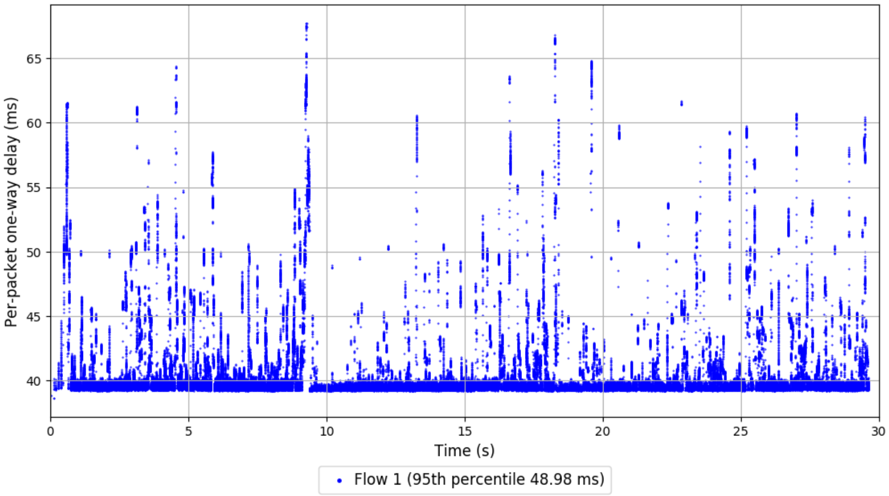




```
Run 4: Statistics of TCP Vegas

Start at: 2017-12-01 02:04:00
End at: 2017-12-01 02:04:30
Local clock offset: -0.184 ms
Remote clock offset: -6.272 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.17 Mbit/s
95th percentile per-packet one-way delay: 48.976 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 37.17 Mbit/s
95th percentile per-packet one-way delay: 48.976 ms
Loss rate: 0.32%
```

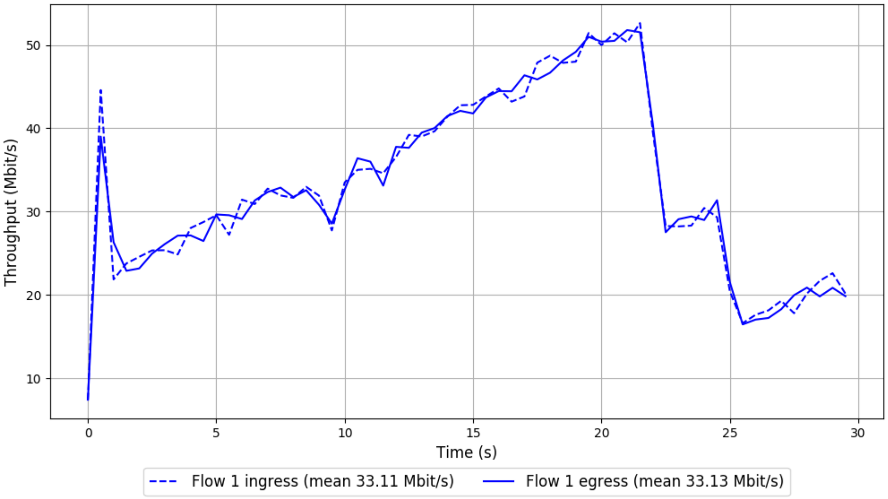
Run 4: Report of TCP Vegas — Data Link

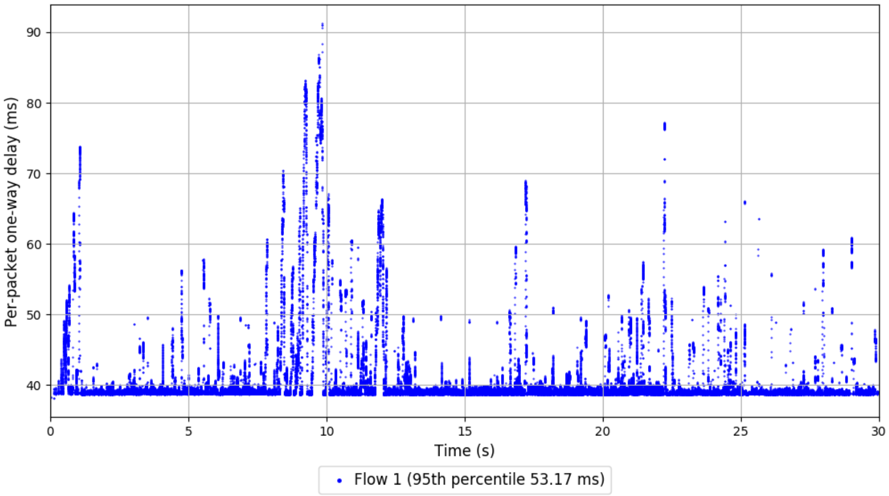




```
Run 5: Statistics of TCP Vegas

Start at: 2017-12-01 02:20:53
End at: 2017-12-01 02:21:23
Local clock offset: -0.228 ms
Remote clock offset: -6.153 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.13 Mbit/s
95th percentile per-packet one-way delay: 53.166 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 33.13 Mbit/s
95th percentile per-packet one-way delay: 53.166 ms
Loss rate: 0.22%
```

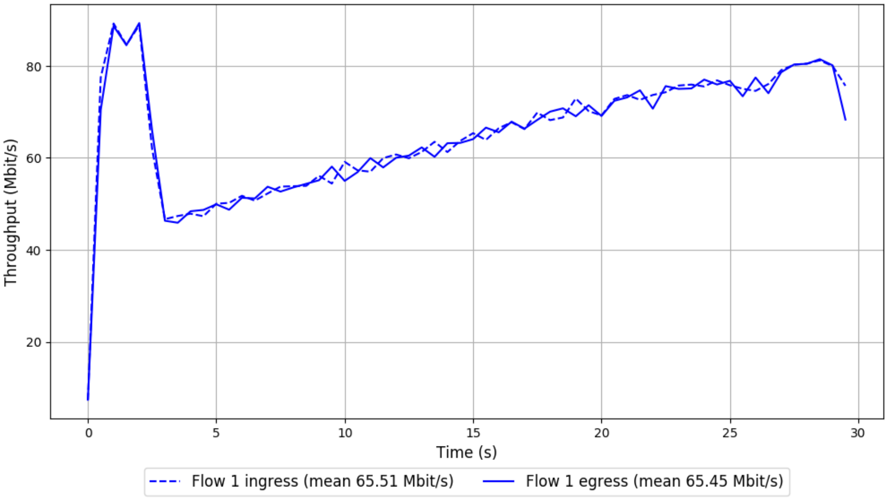
Run 5: Report of TCP Vegas — Data Link

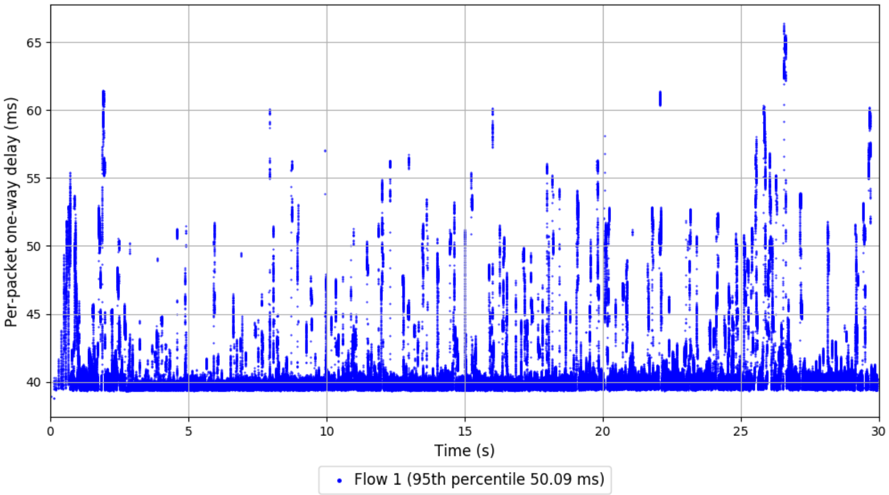




```
Run 6: Statistics of TCP Vegas

Start at: 2017-12-01 02:37:34
End at: 2017-12-01 02:38:04
Local clock offset: -0.161 ms
Remote clock offset: -6.143 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.45 Mbit/s
95th percentile per-packet one-way delay: 50.089 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 65.45 Mbit/s
95th percentile per-packet one-way delay: 50.089 ms
Loss rate: 0.36%
```

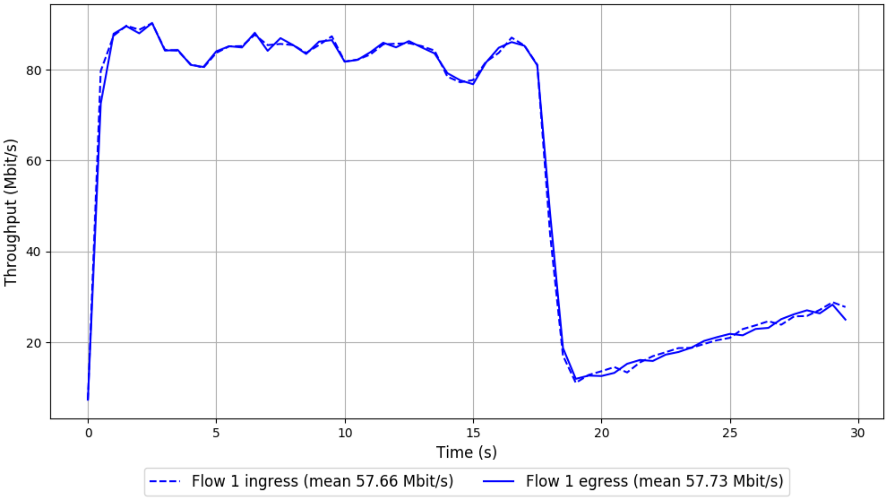
Run 6: Report of TCP Vegas — Data Link

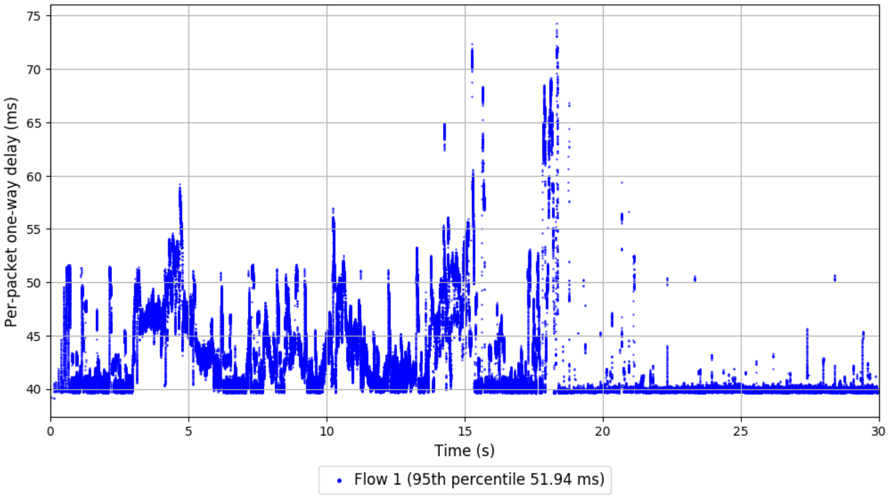




```
Run 7: Statistics of TCP Vegas

Start at: 2017-12-01 02:54:23
End at: 2017-12-01 02:54:53
Local clock offset: 0.107 ms
Remote clock offset: -6.108 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.73 Mbit/s
95th percentile per-packet one-way delay: 51.940 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 57.73 Mbit/s
95th percentile per-packet one-way delay: 51.940 ms
Loss rate: 0.16%
```

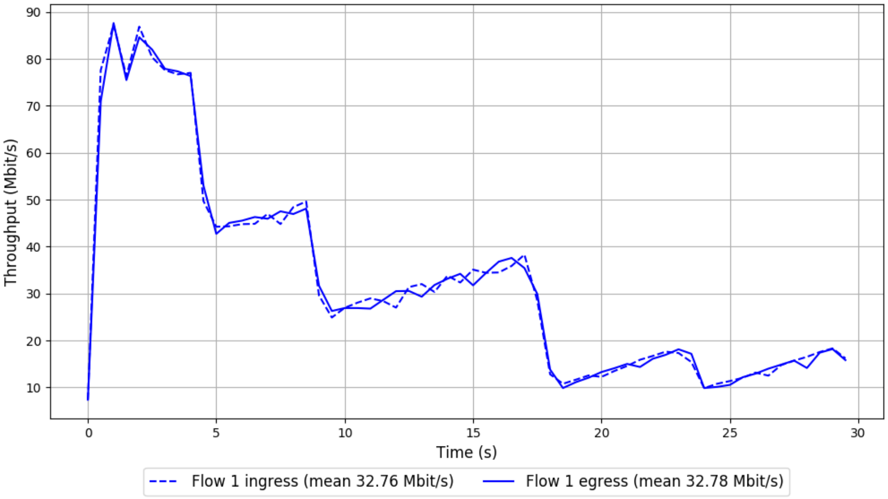
Run 7: Report of TCP Vegas — Data Link

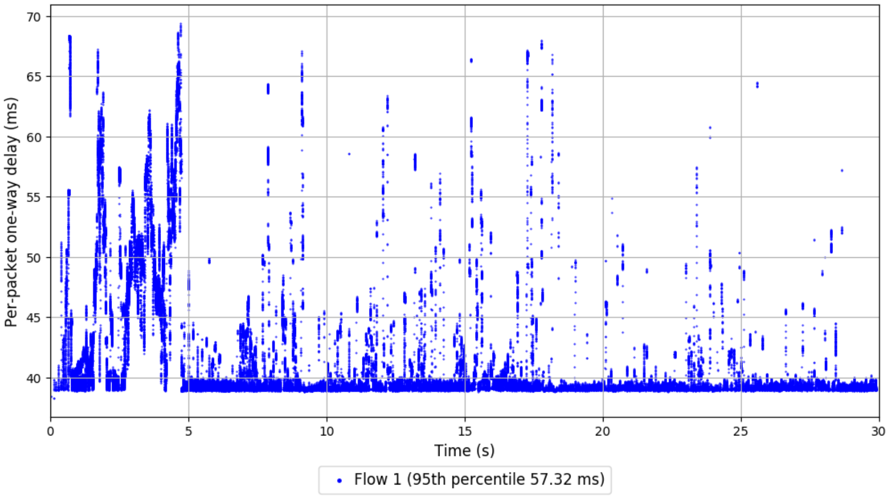




```
Run 8: Statistics of TCP Vegas

Start at: 2017-12-01 03:11:08
End at: 2017-12-01 03:11:38
Local clock offset: -0.122 ms
Remote clock offset: -6.322 ms

# Below is generated by plot.py at 2017-12-01 06:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 57.321 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 57.321 ms
Loss rate: 0.21%
```

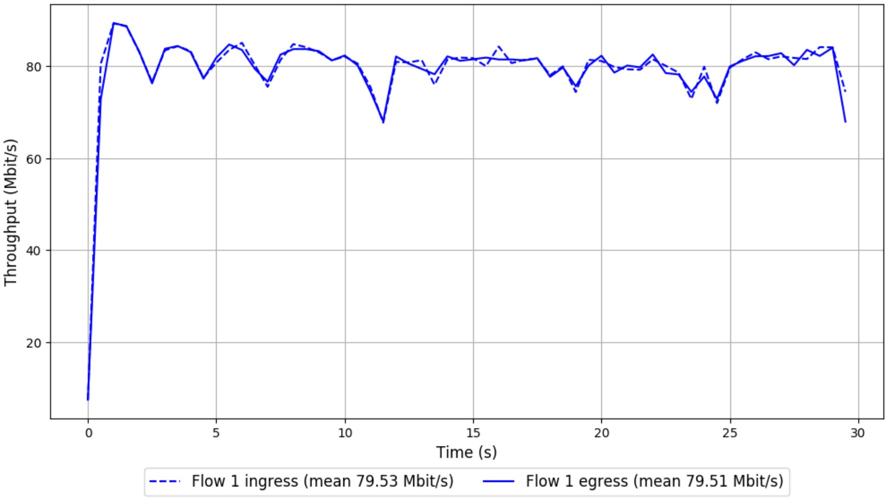
Run 8: Report of TCP Vegas — Data Link

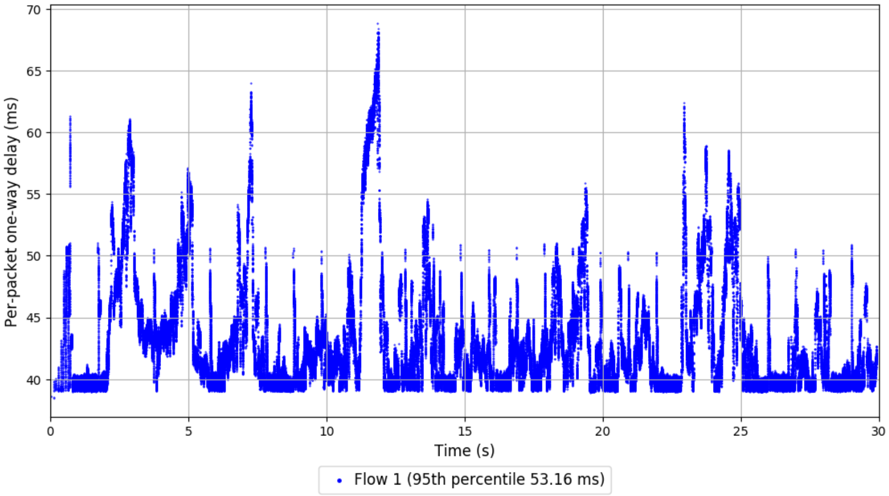




```
Run 9: Statistics of TCP Vegas

Start at: 2017-12-01 03:27:45
End at: 2017-12-01 03:28:15
Local clock offset: -0.338 ms
Remote clock offset: -6.334 ms

# Below is generated by plot.py at 2017-12-01 06:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.51 Mbit/s
95th percentile per-packet one-way delay: 53.161 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 79.51 Mbit/s
95th percentile per-packet one-way delay: 53.161 ms
Loss rate: 0.30%
```

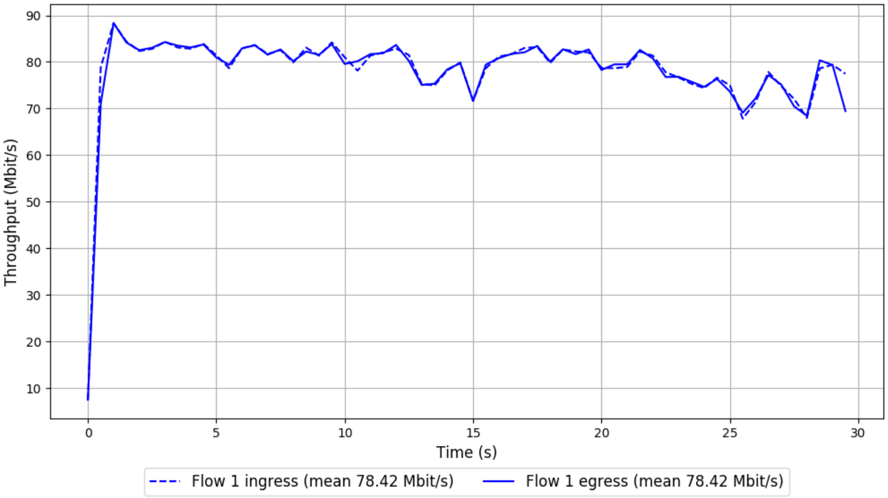
Run 9: Report of TCP Vegas — Data Link

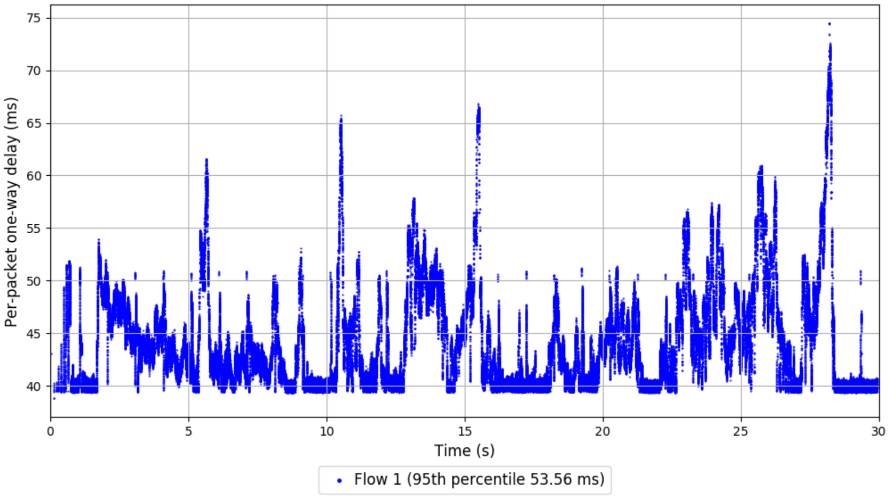




```
Run 10: Statistics of TCP Vegas

Start at: 2017-12-01 03:44:42
End at: 2017-12-01 03:45:12
Local clock offset: -0.366 ms
Remote clock offset: -6.283 ms

# Below is generated by plot.py at 2017-12-01 06:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.42 Mbit/s
95th percentile per-packet one-way delay: 53.565 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 78.42 Mbit/s
95th percentile per-packet one-way delay: 53.565 ms
Loss rate: 0.30%
```

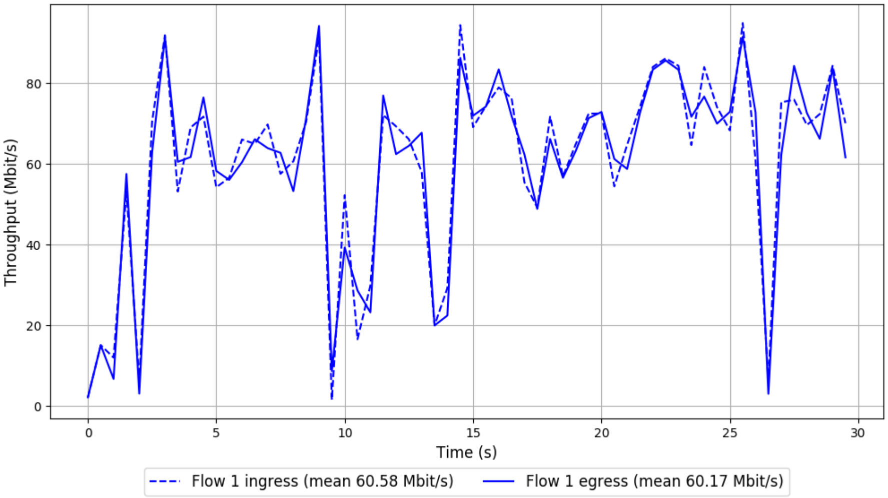
Run 10: Report of TCP Vegas — Data Link

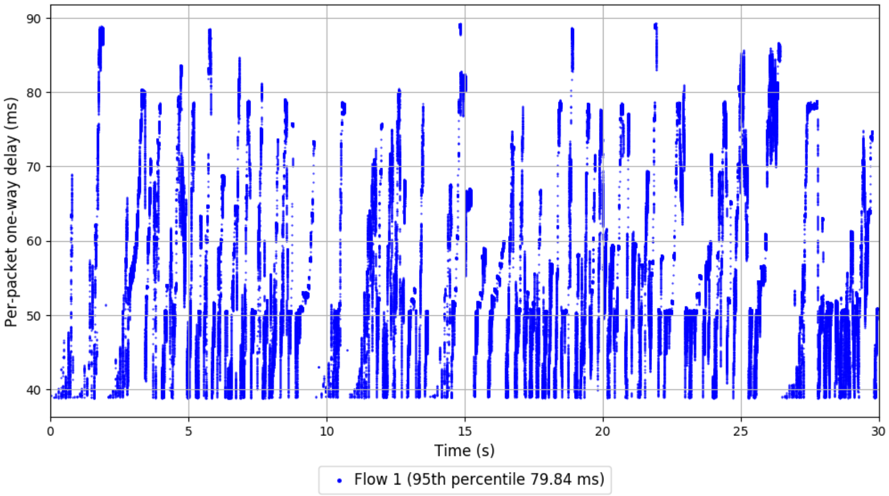




```
Run 1: Statistics of Verus

Start at: 2017-12-01 01:07:44
End at: 2017-12-01 01:08:14
Local clock offset: -0.647 ms
Remote clock offset: -6.722 ms

# Below is generated by plot.py at 2017-12-01 06:54:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.17 Mbit/s
95th percentile per-packet one-way delay: 79.838 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 60.17 Mbit/s
95th percentile per-packet one-way delay: 79.838 ms
Loss rate: 0.97%
```

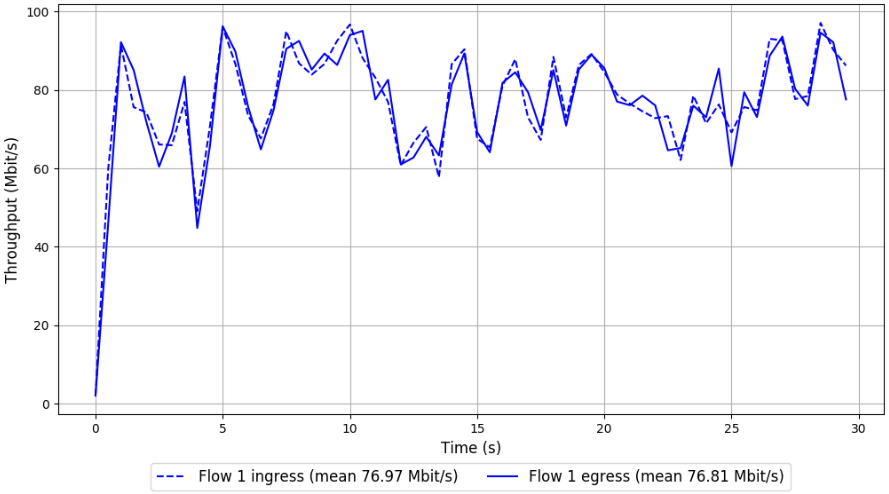
Run 1: Report of Verus — Data Link

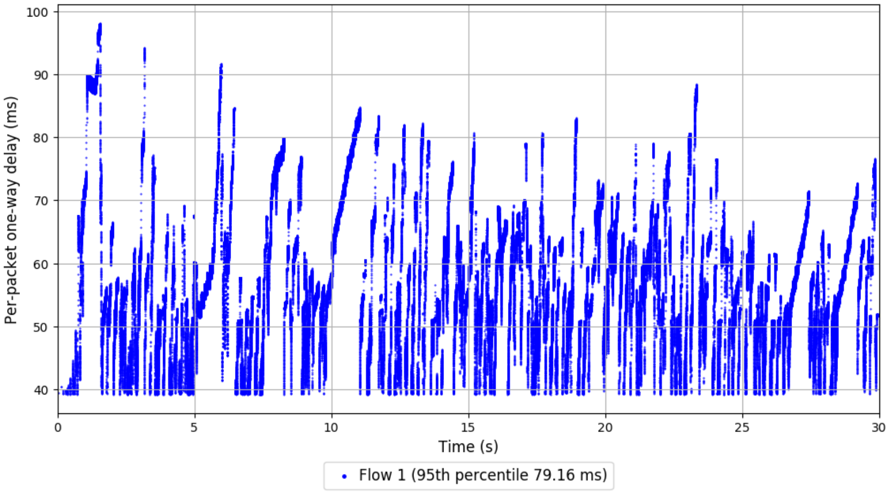




```
Run 2: Statistics of Verus

Start at: 2017-12-01 01:24:24
End at: 2017-12-01 01:24:54
Local clock offset: -0.542 ms
Remote clock offset: -6.595 ms

# Below is generated by plot.py at 2017-12-01 06:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.81 Mbit/s
95th percentile per-packet one-way delay: 79.158 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 76.81 Mbit/s
95th percentile per-packet one-way delay: 79.158 ms
Loss rate: 0.52%
```

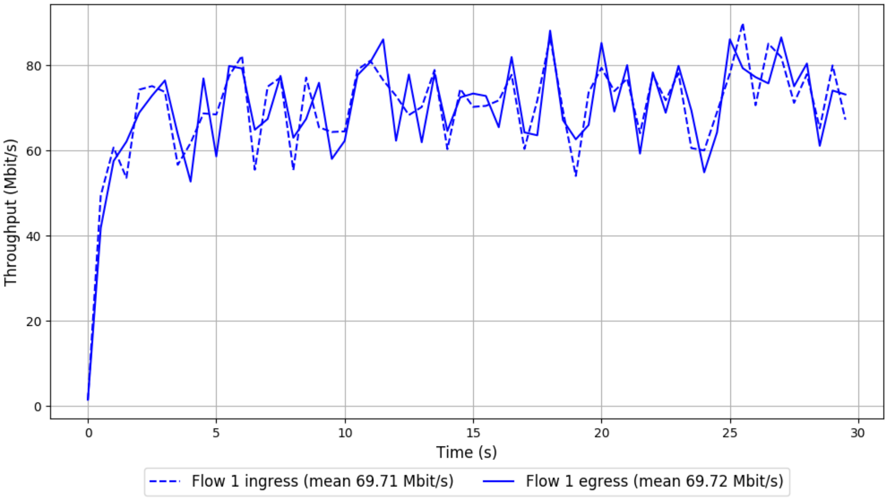
Run 2: Report of Verus — Data Link

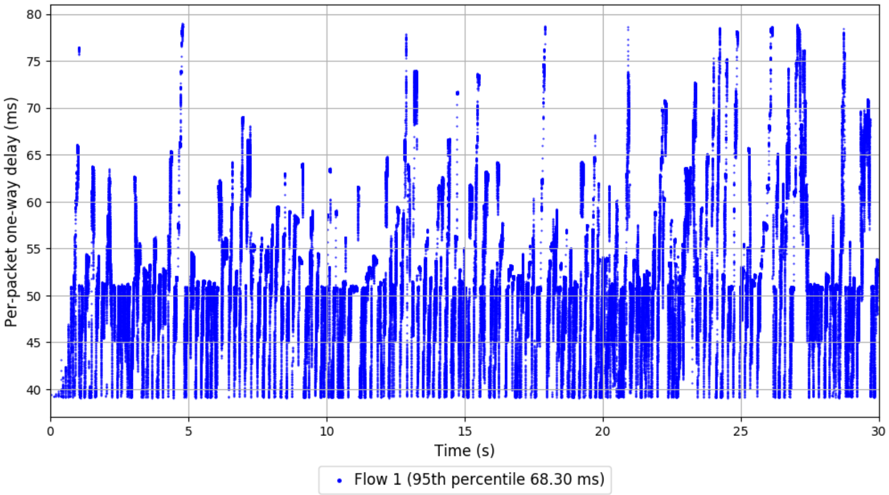




```
Run 3: Statistics of Verus

Start at: 2017-12-01 01:41:16
End at: 2017-12-01 01:41:46
Local clock offset: -0.413 ms
Remote clock offset: -6.465 ms

# Below is generated by plot.py at 2017-12-01 06:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.72 Mbit/s
95th percentile per-packet one-way delay: 68.301 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 69.72 Mbit/s
95th percentile per-packet one-way delay: 68.301 ms
Loss rate: 0.25%
```

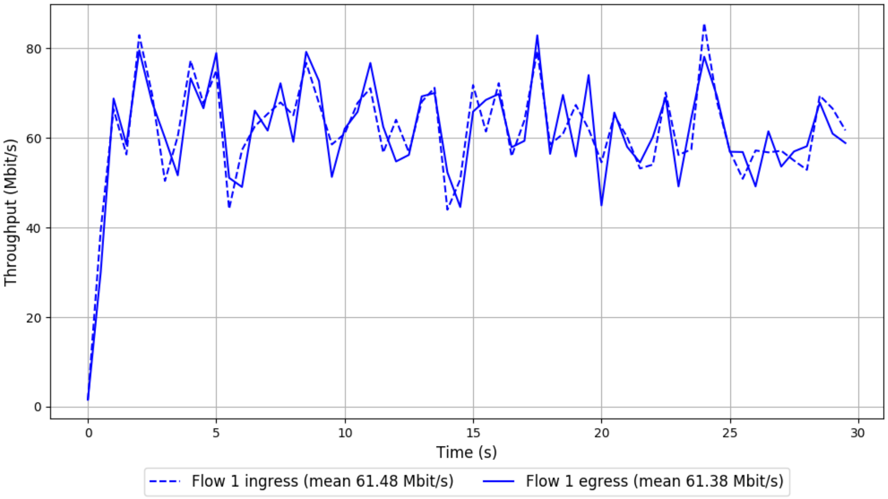
Run 3: Report of Verus — Data Link

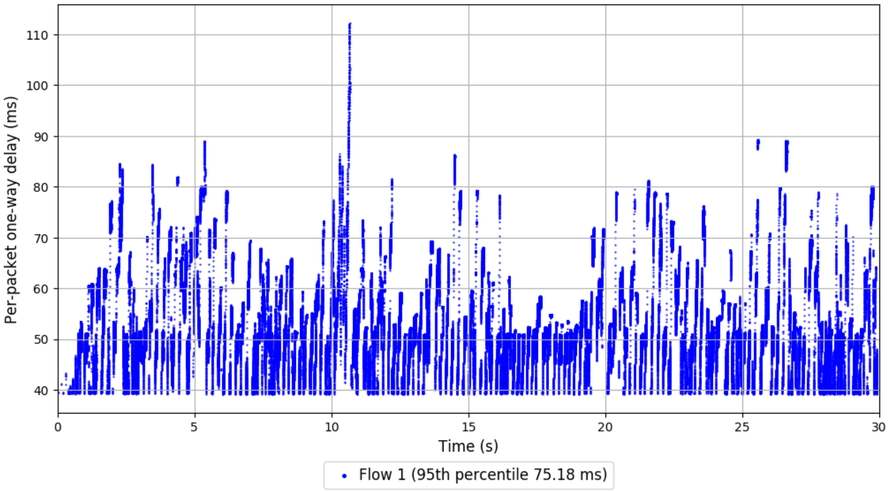




```
Run 4: Statistics of Verus

Start at: 2017-12-01 01:57:57
End at: 2017-12-01 01:58:27
Local clock offset: -0.276 ms
Remote clock offset: -6.287 ms

# Below is generated by plot.py at 2017-12-01 06:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 75.181 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 75.181 ms
Loss rate: 0.50%
```

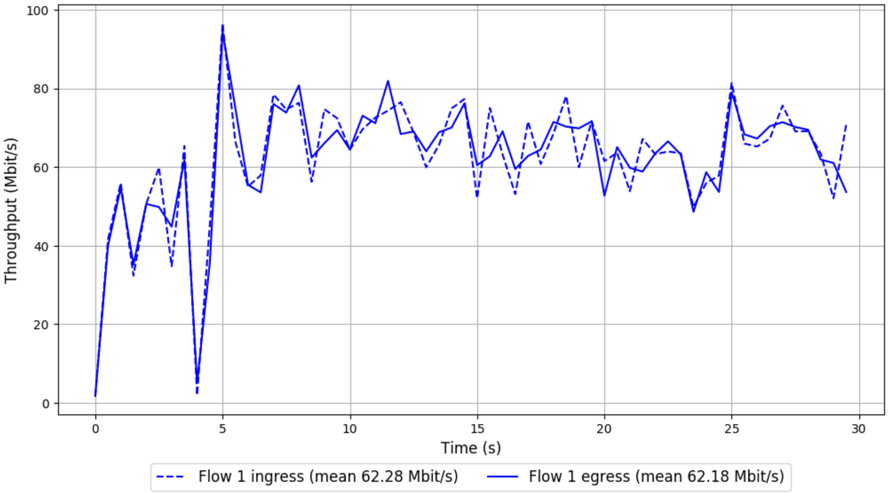
Run 4: Report of Verus — Data Link

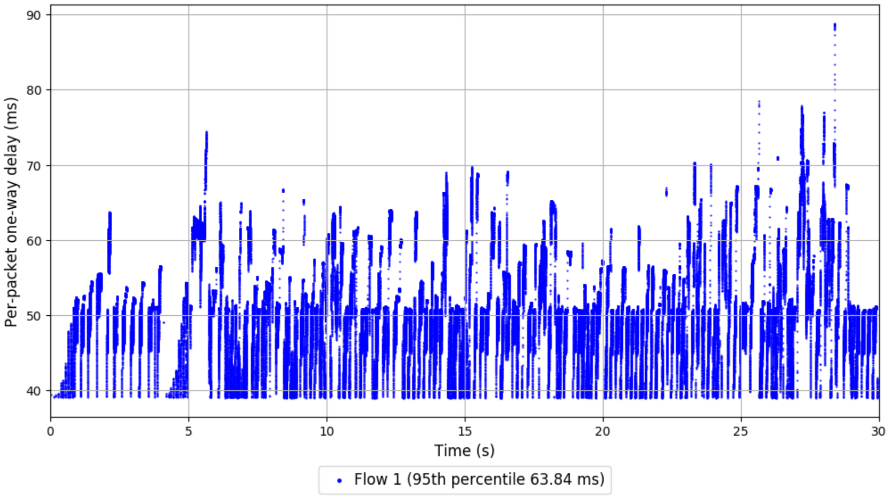




```
Run 5: Statistics of Verus

Start at: 2017-12-01 02:14:54
End at: 2017-12-01 02:15:24
Local clock offset: -0.277 ms
Remote clock offset: -6.221 ms

# Below is generated by plot.py at 2017-12-01 06:55:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.18 Mbit/s
95th percentile per-packet one-way delay: 63.845 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 62.18 Mbit/s
95th percentile per-packet one-way delay: 63.845 ms
Loss rate: 0.47%
```

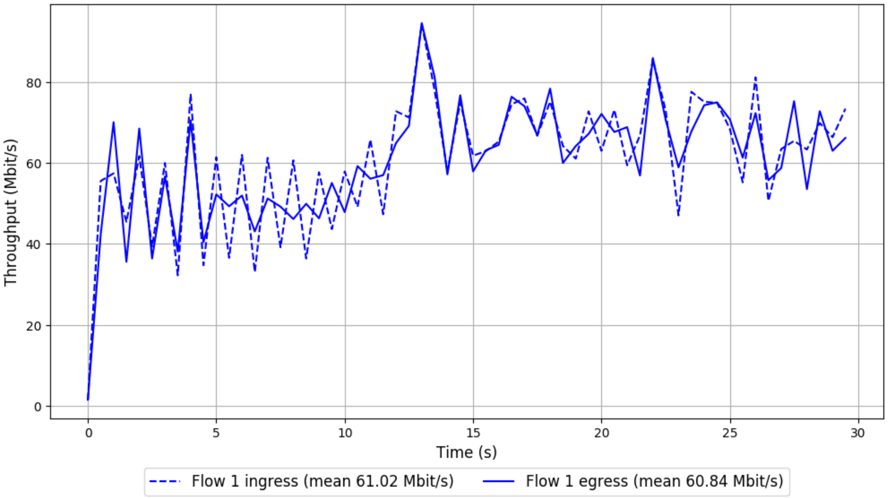
Run 5: Report of Verus — Data Link

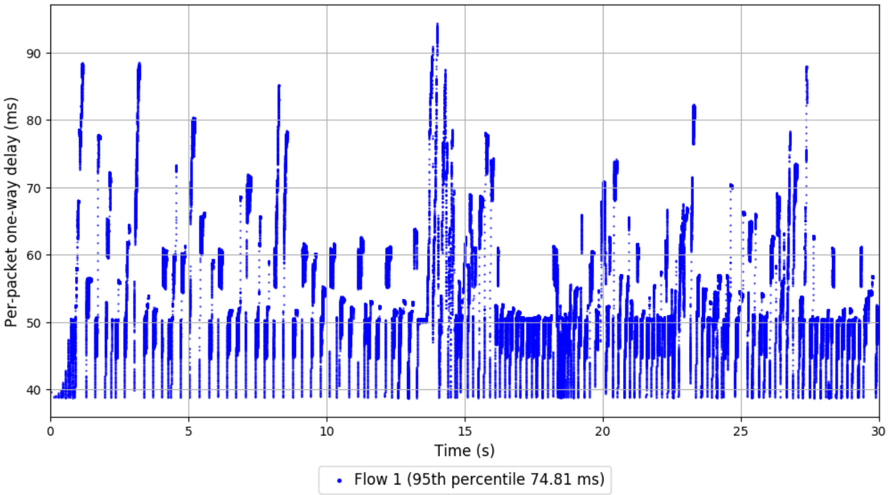




```
Run 6: Statistics of Verus

Start at: 2017-12-01 02:31:39
End at: 2017-12-01 02:32:09
Local clock offset: -0.212 ms
Remote clock offset: -6.236 ms

# Below is generated by plot.py at 2017-12-01 06:55:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 74.805 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 74.805 ms
Loss rate: 0.56%
```

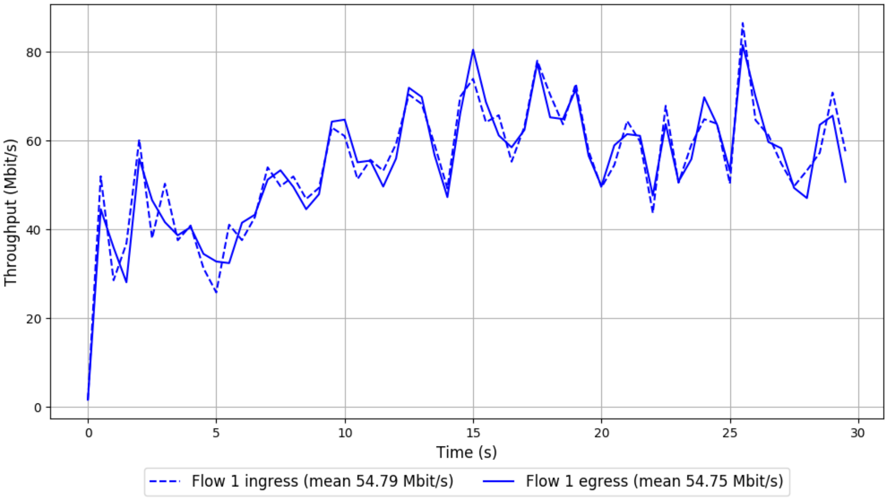
Run 6: Report of Verus — Data Link

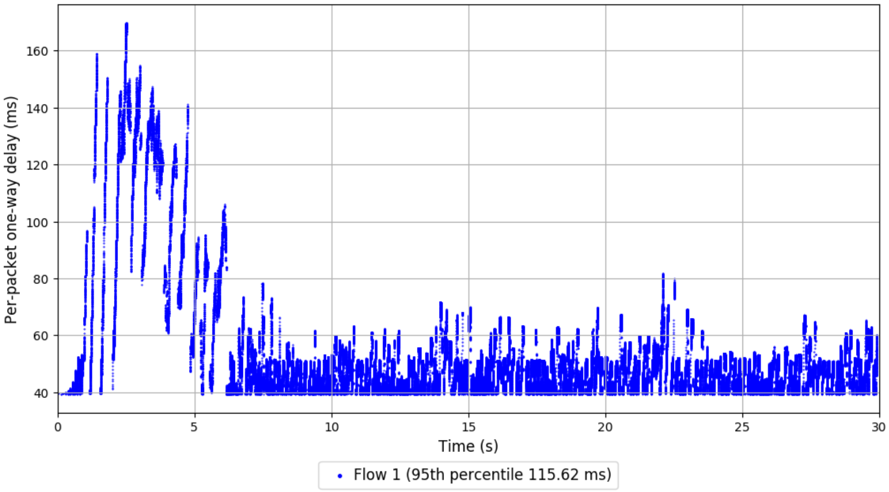




```
Run 7: Statistics of Verus

Start at: 2017-12-01 02:48:25
End at: 2017-12-01 02:48:55
Local clock offset: 0.082 ms
Remote clock offset: -6.126 ms

# Below is generated by plot.py at 2017-12-01 06:55:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.75 Mbit/s
95th percentile per-packet one-way delay: 115.620 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 54.75 Mbit/s
95th percentile per-packet one-way delay: 115.620 ms
Loss rate: 0.46%
```

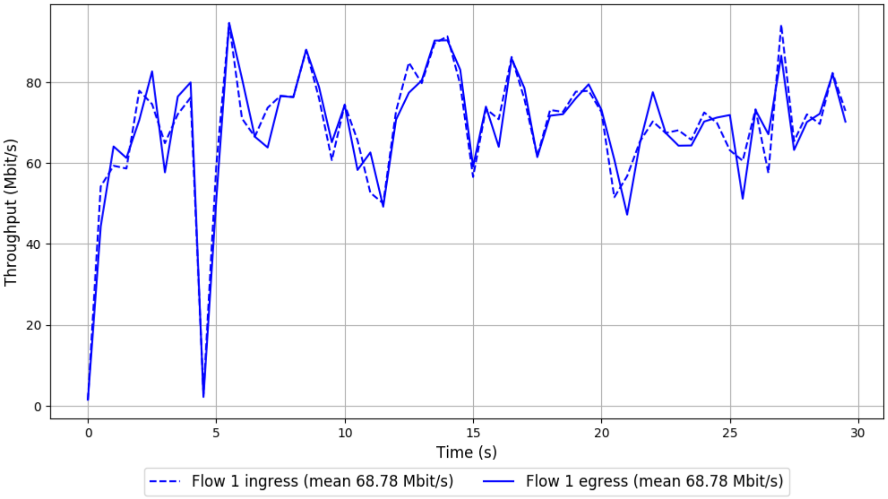
Run 7: Report of Verus — Data Link

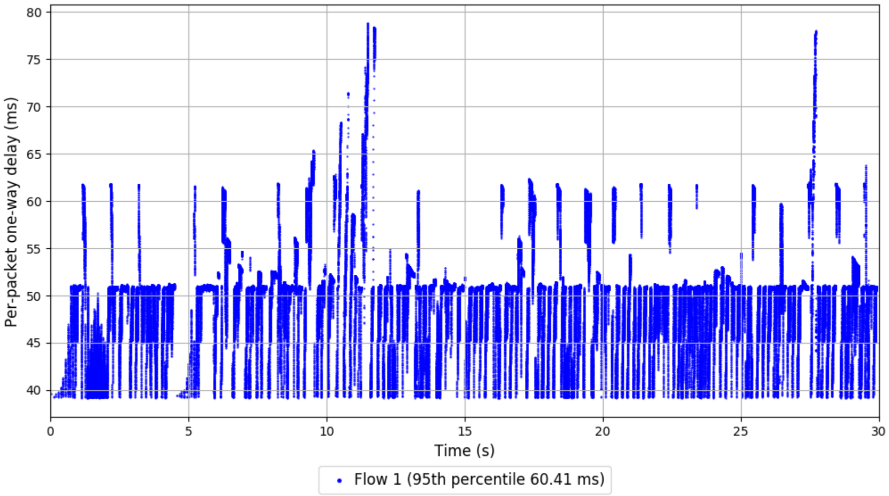




```
Run 8: Statistics of Verus

Start at: 2017-12-01 03:05:13
End at: 2017-12-01 03:05:43
Local clock offset: -0.052 ms
Remote clock offset: -6.221 ms

# Below is generated by plot.py at 2017-12-01 06:56:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.78 Mbit/s
95th percentile per-packet one-way delay: 60.413 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 68.78 Mbit/s
95th percentile per-packet one-way delay: 60.413 ms
Loss rate: 0.31%
```

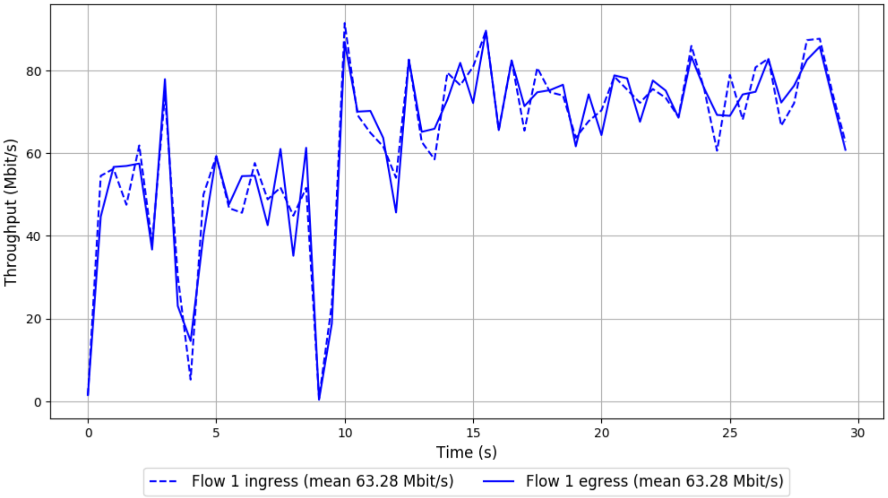
Run 8: Report of Verus — Data Link

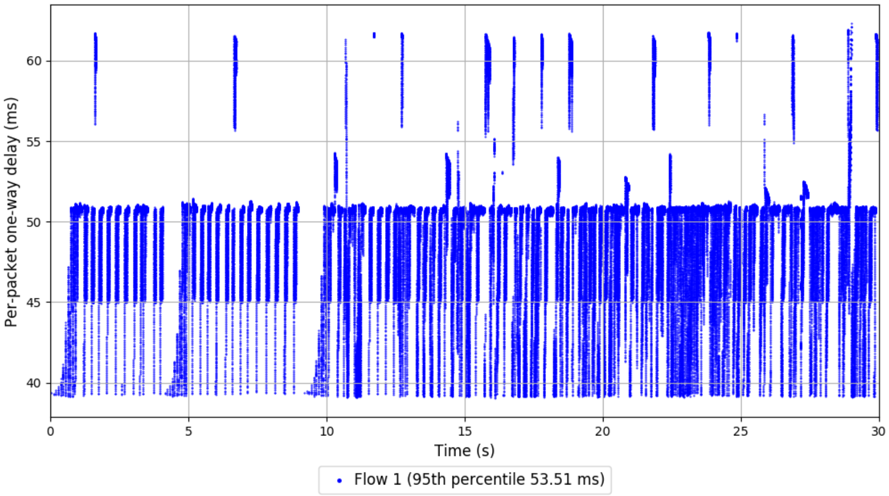




```
Run 9: Statistics of Verus

Start at: 2017-12-01 03:21:53
End at: 2017-12-01 03:22:23
Local clock offset: -0.202 ms
Remote clock offset: -6.283 ms

# Below is generated by plot.py at 2017-12-01 06:56:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.28 Mbit/s
95th percentile per-packet one-way delay: 53.507 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 63.28 Mbit/s
95th percentile per-packet one-way delay: 53.507 ms
Loss rate: 0.26%
```

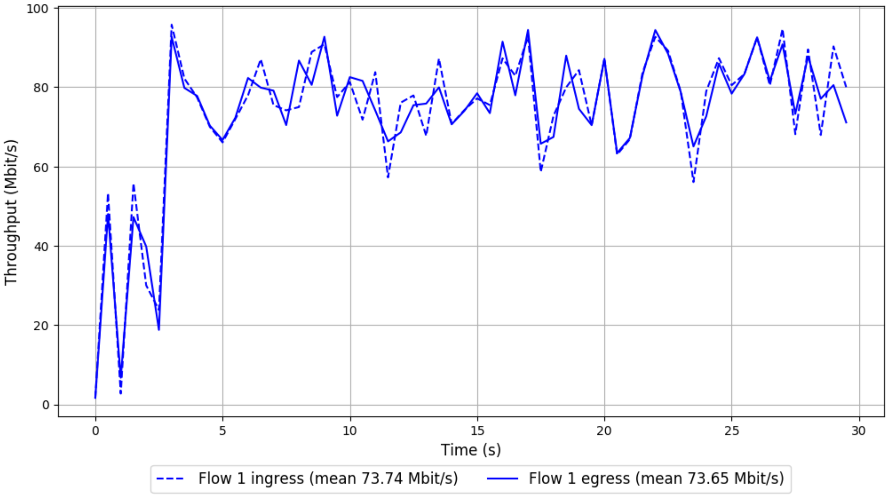
Run 9: Report of Verus — Data Link

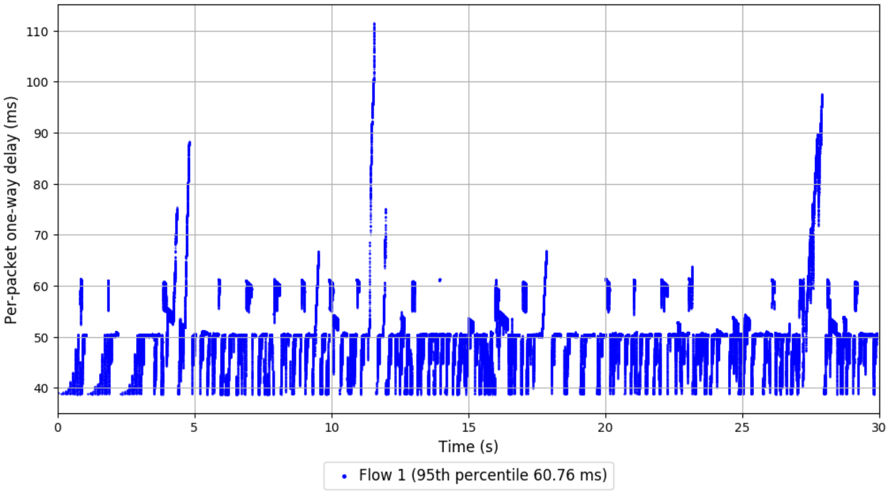




```
Run 10: Statistics of Verus

Start at: 2017-12-01 03:38:37
End at: 2017-12-01 03:39:07
Local clock offset: -0.374 ms
Remote clock offset: -6.3 ms

# Below is generated by plot.py at 2017-12-01 06:56:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.65 Mbit/s
95th percentile per-packet one-way delay: 60.761 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 73.65 Mbit/s
95th percentile per-packet one-way delay: 60.761 ms
Loss rate: 0.42%
```

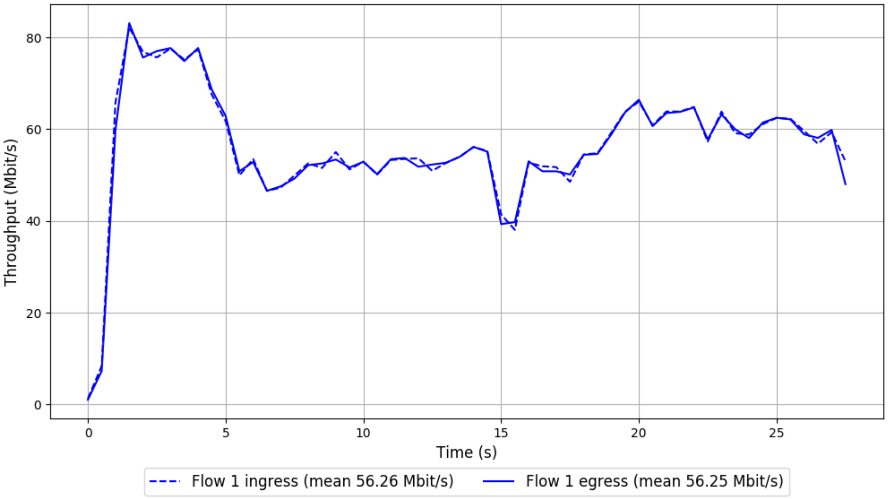
Run 10: Report of Verus — Data Link

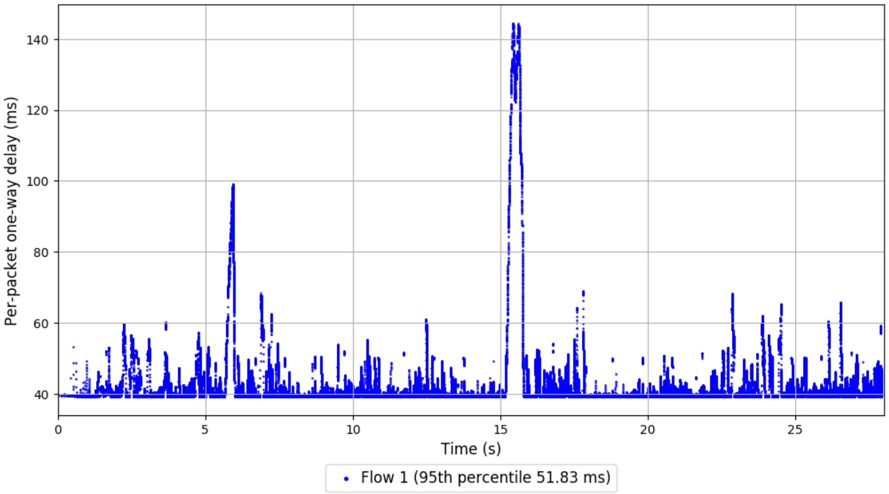




```
Run 1: Statistics of Copa

Start at: 2017-12-01 01:20:44
End at: 2017-12-01 01:21:14
Local clock offset: -0.44 ms
Remote clock offset: -6.639 ms

# Below is generated by plot.py at 2017-12-01 06:56:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 51.831 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 51.831 ms
Loss rate: 0.33%
```

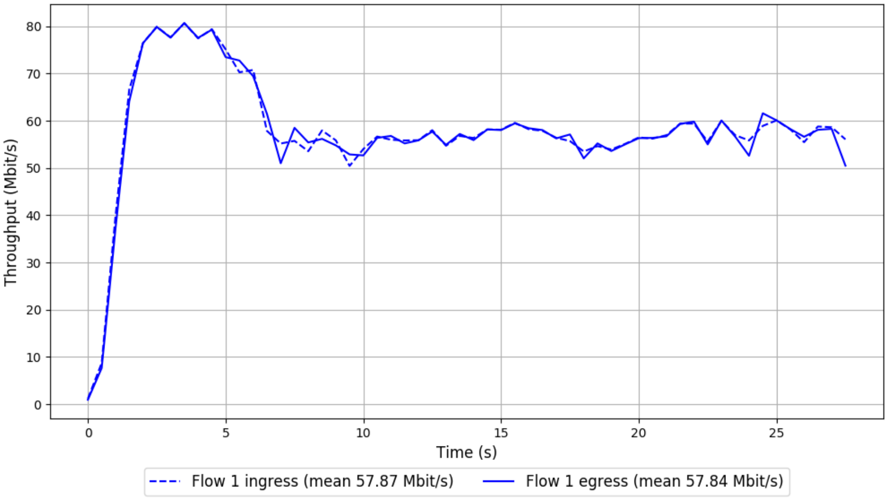
Run 1: Report of Copa — Data Link

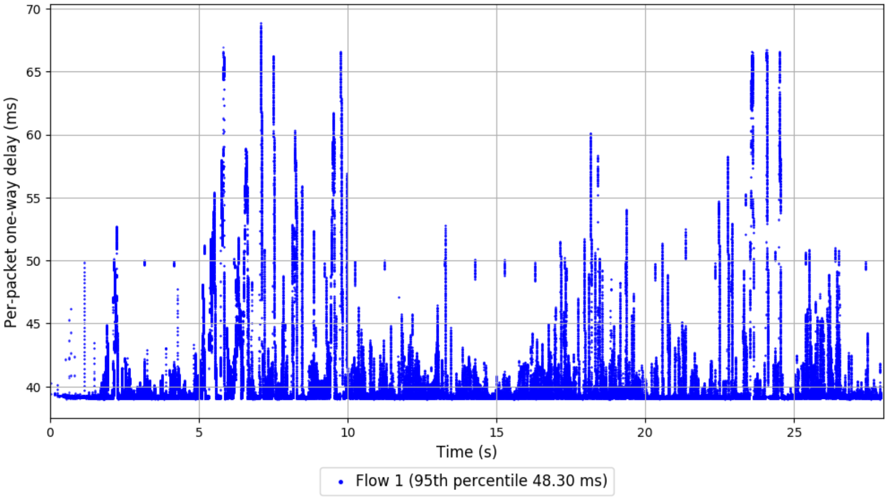




```
Run 2: Statistics of Copa

Start at: 2017-12-01 01:37:26
End at: 2017-12-01 01:37:56
Local clock offset: -0.417 ms
Remote clock offset: -6.495 ms

# Below is generated by plot.py at 2017-12-01 06:56:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.84 Mbit/s
95th percentile per-packet one-way delay: 48.304 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 57.84 Mbit/s
95th percentile per-packet one-way delay: 48.304 ms
Loss rate: 0.35%
```

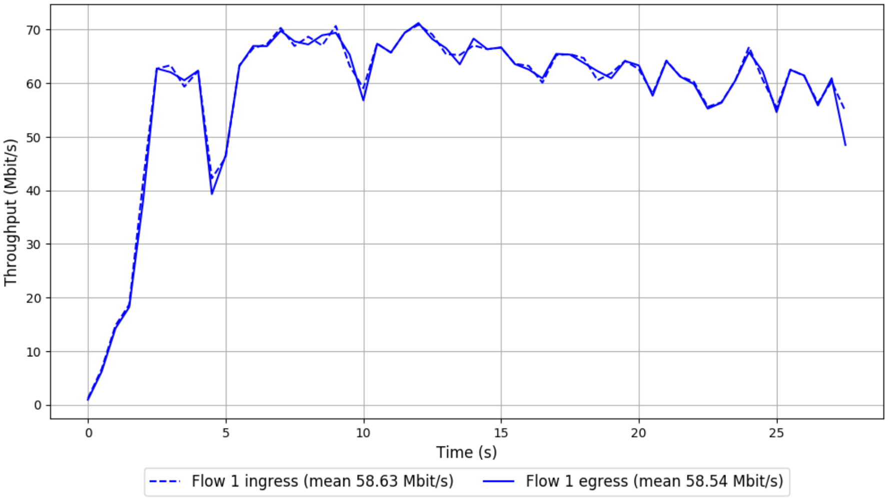
Run 2: Report of Copa — Data Link

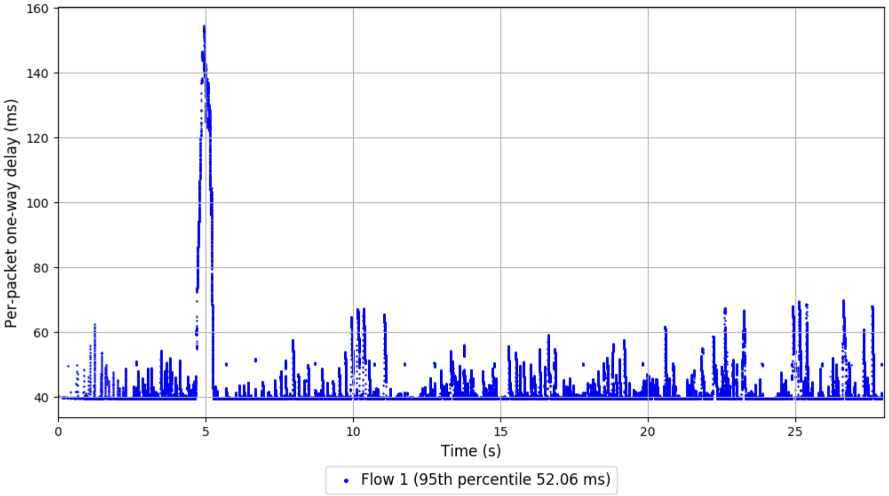




```
Run 3: Statistics of Copa

Start at: 2017-12-01 01:54:17
End at: 2017-12-01 01:54:47
Local clock offset: -0.23 ms
Remote clock offset: -6.41 ms

# Below is generated by plot.py at 2017-12-01 06:57:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 52.064 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 52.064 ms
Loss rate: 0.47%
```

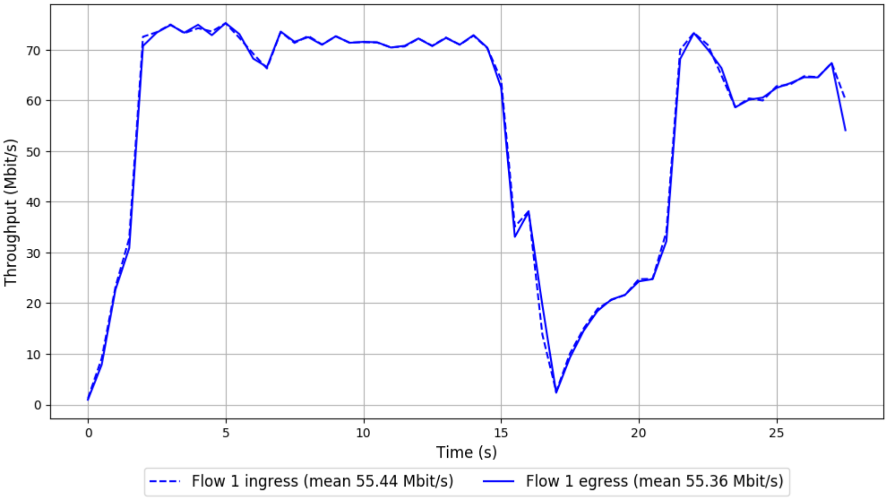
Run 3: Report of Copa — Data Link

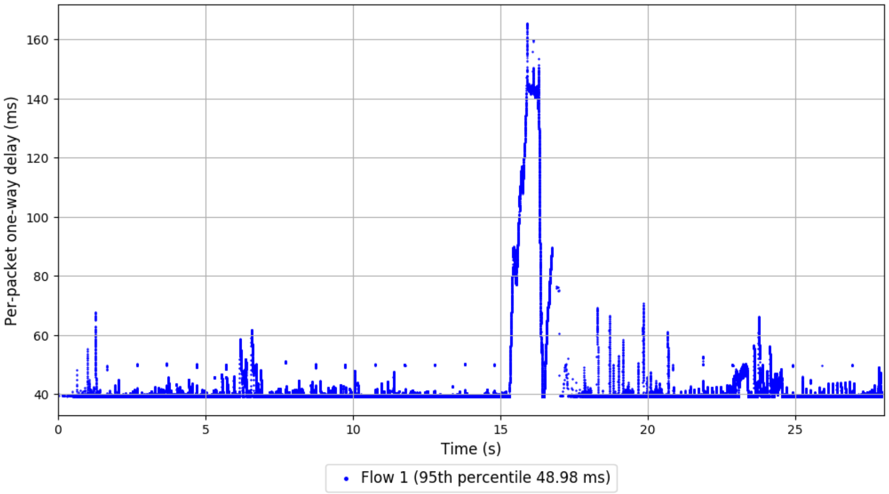




```
Run 4: Statistics of Copa

Start at: 2017-12-01 02:11:10
End at: 2017-12-01 02:11:40
Local clock offset: -0.141 ms
Remote clock offset: -6.318 ms

# Below is generated by plot.py at 2017-12-01 06:57:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 48.978 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 48.978 ms
Loss rate: 0.49%
```

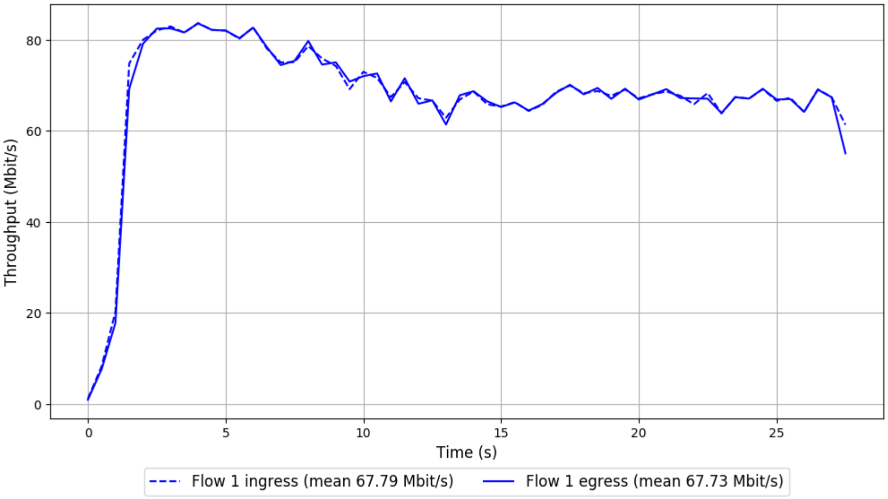
Run 4: Report of Copa — Data Link

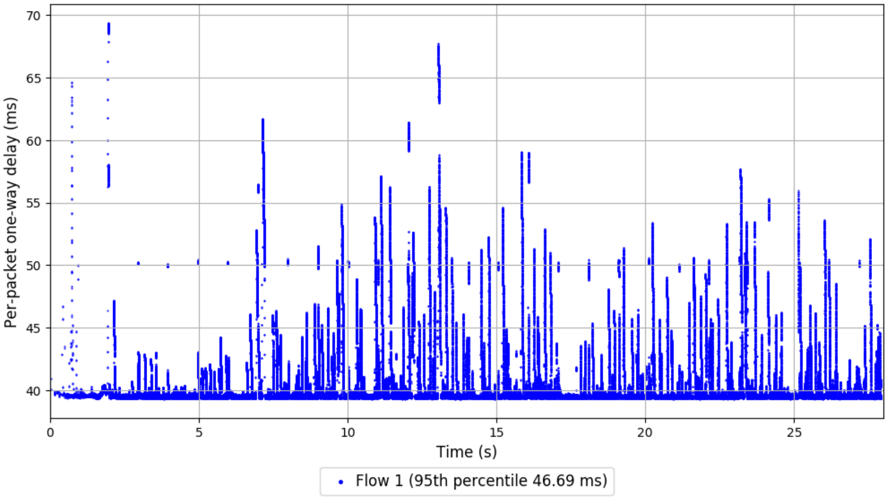




```
Run 5: Statistics of Copa

Start at: 2017-12-01 02:27:58
End at: 2017-12-01 02:28:28
Local clock offset: -0.205 ms
Remote clock offset: -6.27 ms

# Below is generated by plot.py at 2017-12-01 06:57:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 46.686 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 46.686 ms
Loss rate: 0.40%
```

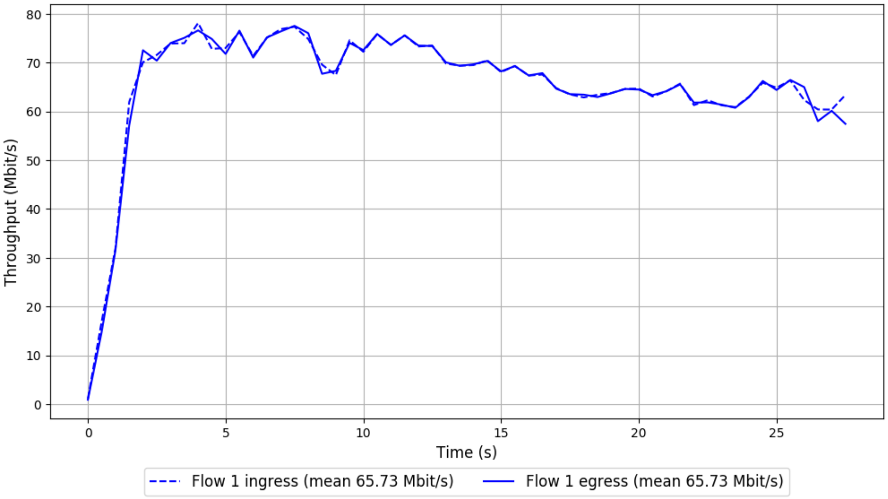
Run 5: Report of Copa — Data Link

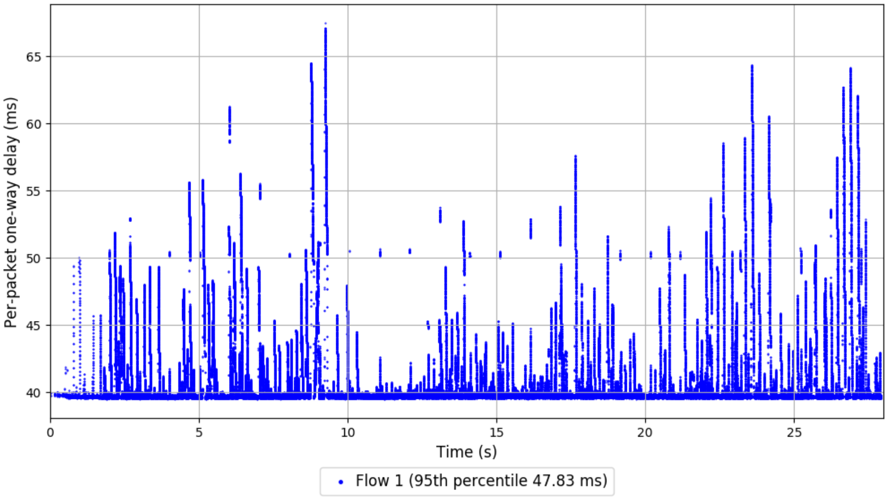




```
Run 6: Statistics of Copa

Start at: 2017-12-01 02:44:43
End at: 2017-12-01 02:45:13
Local clock offset: 0.074 ms
Remote clock offset: -6.16 ms

# Below is generated by plot.py at 2017-12-01 06:57:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.73 Mbit/s
95th percentile per-packet one-way delay: 47.826 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 65.73 Mbit/s
95th percentile per-packet one-way delay: 47.826 ms
Loss rate: 0.31%
```

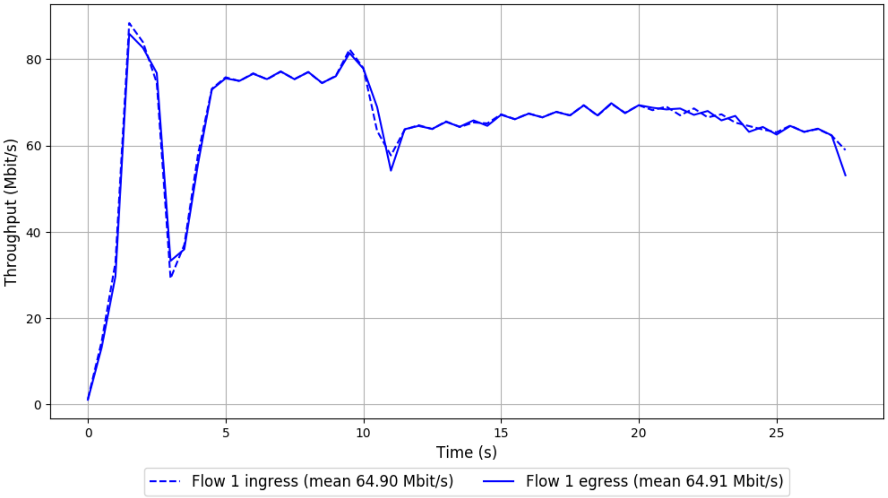
Run 6: Report of Copa — Data Link

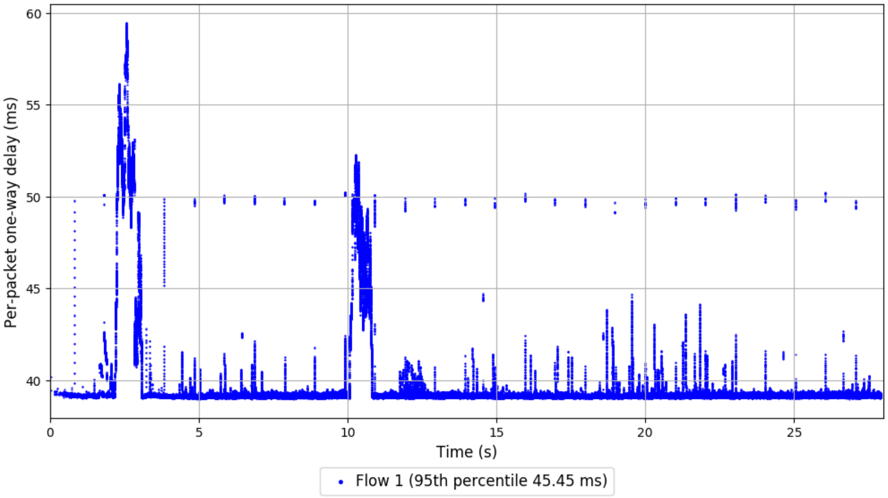




```
Run 7: Statistics of Copa

Start at: 2017-12-01 03:01:31
End at: 2017-12-01 03:02:01
Local clock offset: -0.051 ms
Remote clock offset: -6.186 ms

# Below is generated by plot.py at 2017-12-01 06:57:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.91 Mbit/s
95th percentile per-packet one-way delay: 45.449 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 64.91 Mbit/s
95th percentile per-packet one-way delay: 45.449 ms
Loss rate: 0.30%
```

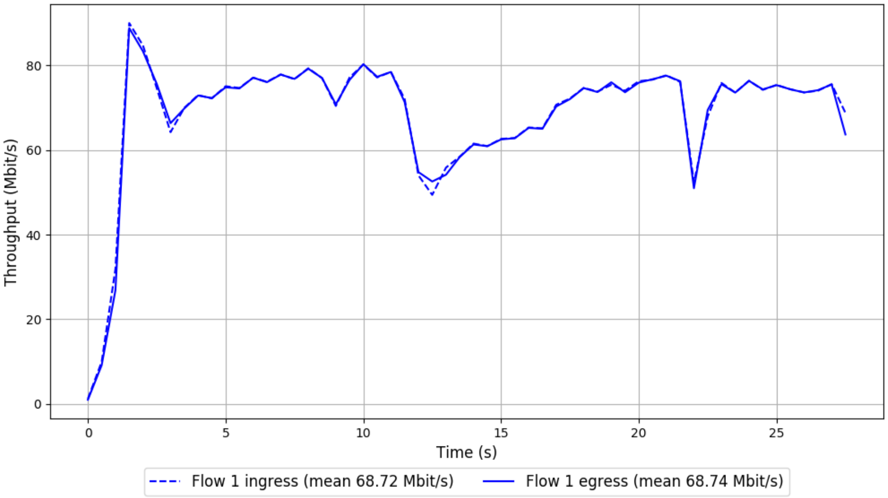
Run 7: Report of Copa — Data Link

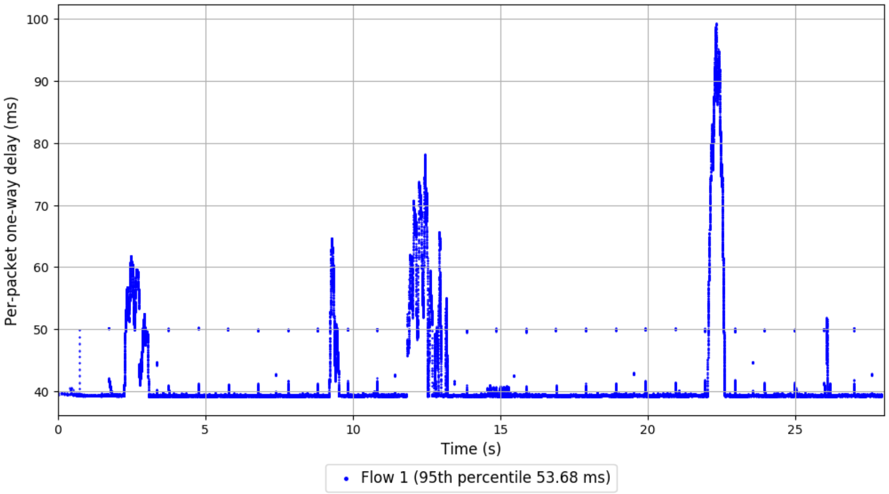




```
Run 8: Statistics of Copa

Start at: 2017-12-01 03:18:12
End at: 2017-12-01 03:18:42
Local clock offset: -0.008 ms
Remote clock offset: -6.351 ms

# Below is generated by plot.py at 2017-12-01 06:58:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.74 Mbit/s
95th percentile per-packet one-way delay: 53.681 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 68.74 Mbit/s
95th percentile per-packet one-way delay: 53.681 ms
Loss rate: 0.29%
```

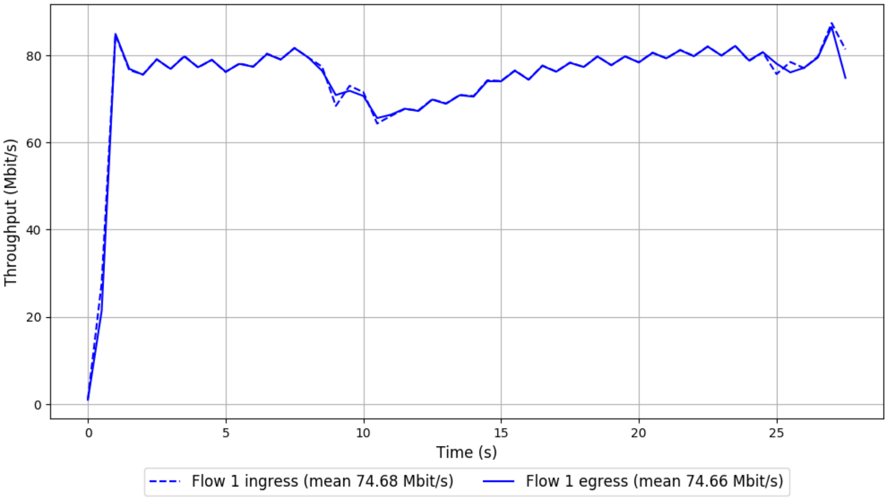
Run 8: Report of Copa — Data Link

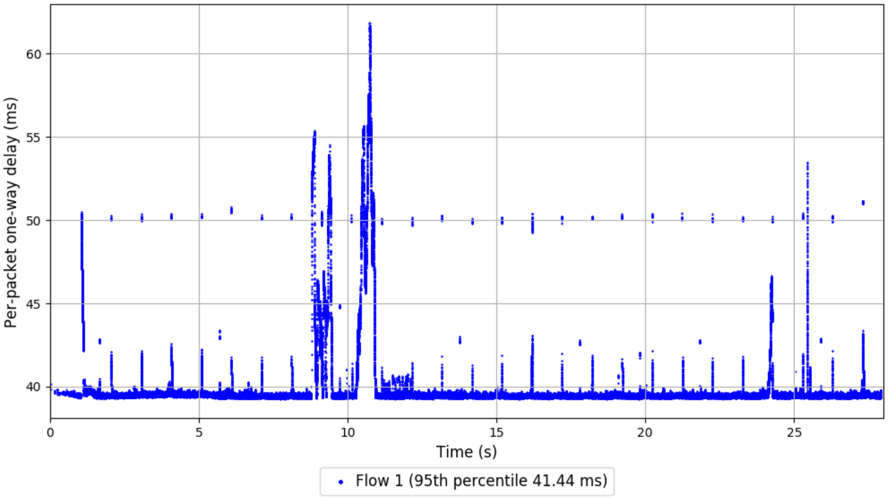




```
Run 9: Statistics of Copa

Start at: 2017-12-01 03:34:55
End at: 2017-12-01 03:35:25
Local clock offset: -0.126 ms
Remote clock offset: -6.368 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.66 Mbit/s
95th percentile per-packet one-way delay: 41.443 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 74.66 Mbit/s
95th percentile per-packet one-way delay: 41.443 ms
Loss rate: 0.34%
```

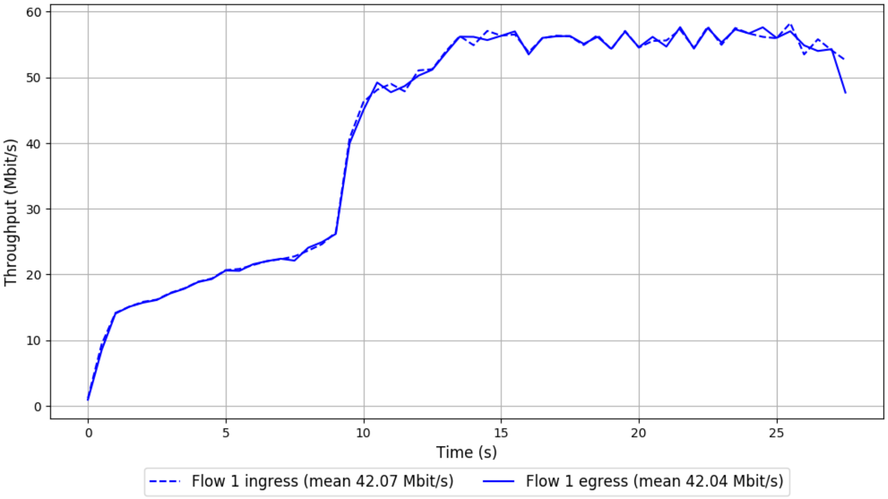
Run 9: Report of Copa — Data Link

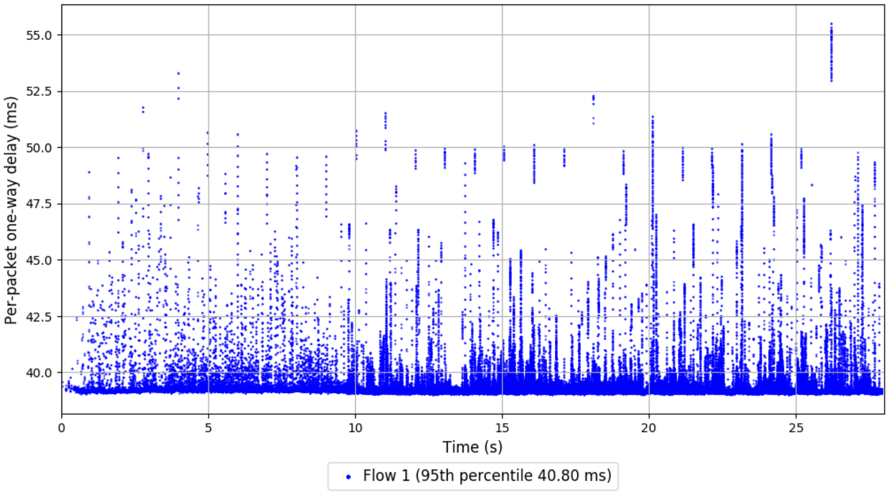




```
Run 10: Statistics of Copa

Start at: 2017-12-01 03:51:49
End at: 2017-12-01 03:52:20
Local clock offset: -0.164 ms
Remote clock offset: -6.104 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 40.798 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 40.798 ms
Loss rate: 0.41%
```

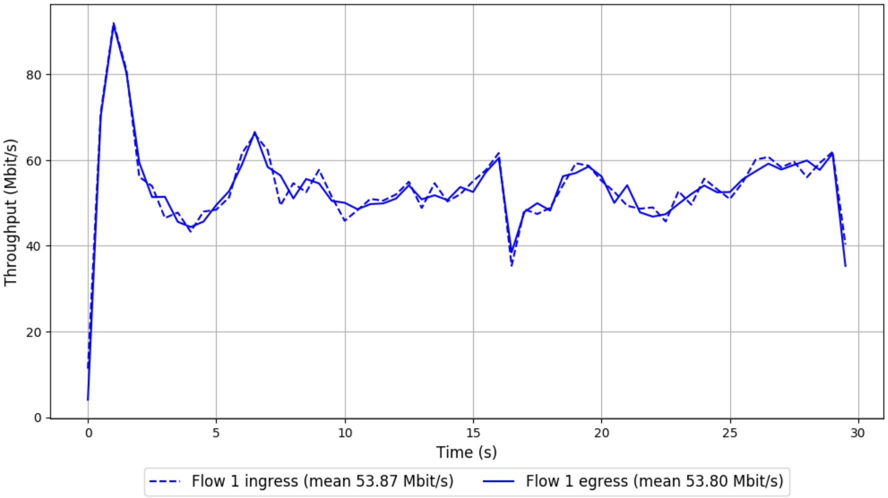
Run 10: Report of Copa — Data Link

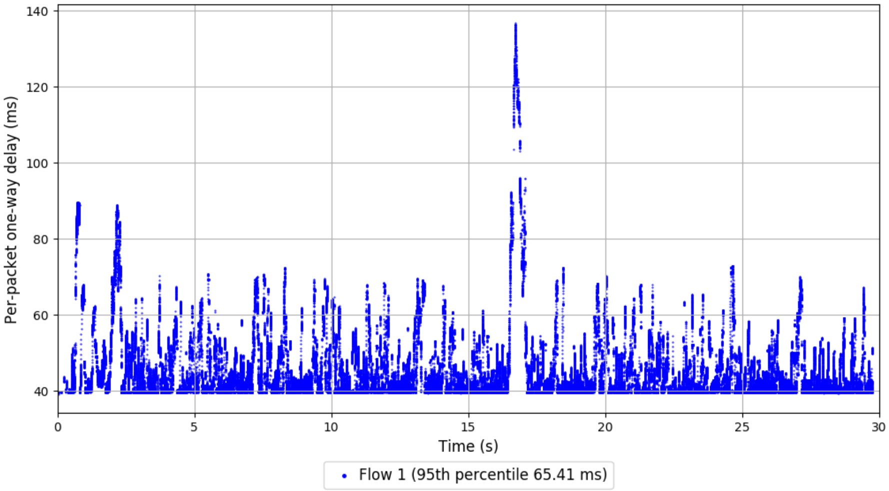




```
Run 1: Statistics of Indigo

Start at: 2017-12-01 01:14:50
End at: 2017-12-01 01:15:20
Local clock offset: -0.62 ms
Remote clock offset: -6.691 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 65.410 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 65.410 ms
Loss rate: 0.41%
```

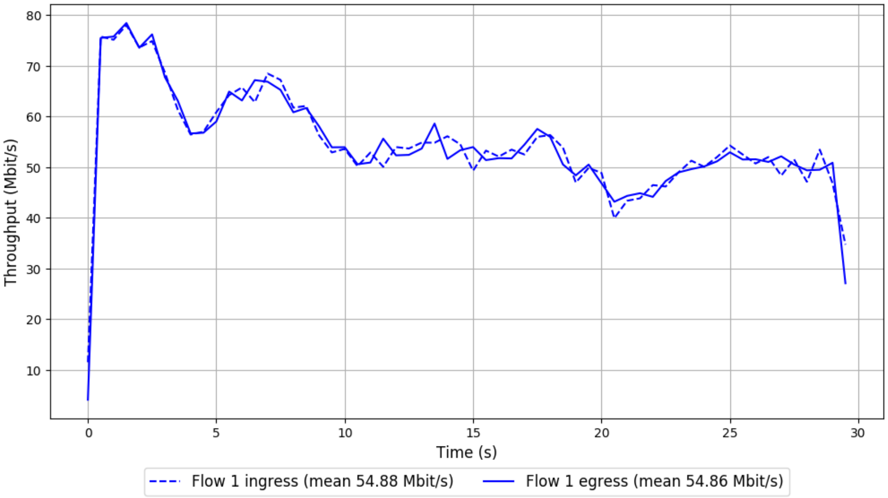
Run 1: Report of Indigo — Data Link

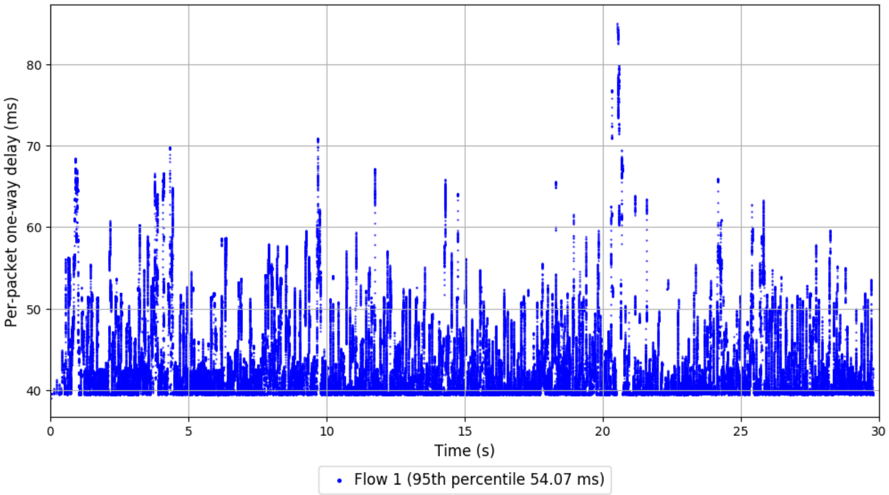




```
Run 2: Statistics of Indigo

Start at: 2017-12-01 01:31:31
End at: 2017-12-01 01:32:01
Local clock offset: -0.504 ms
Remote clock offset: -6.55 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 54.072 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 54.072 ms
Loss rate: 0.32%
```

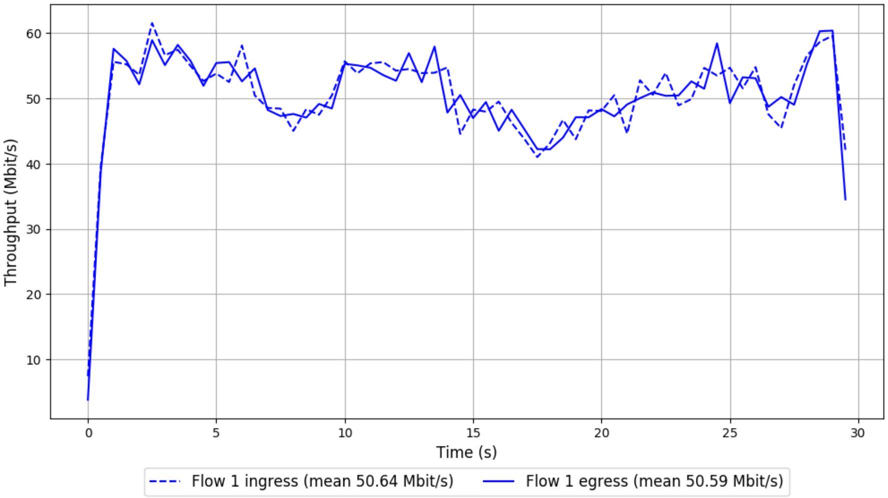
Run 2: Report of Indigo — Data Link

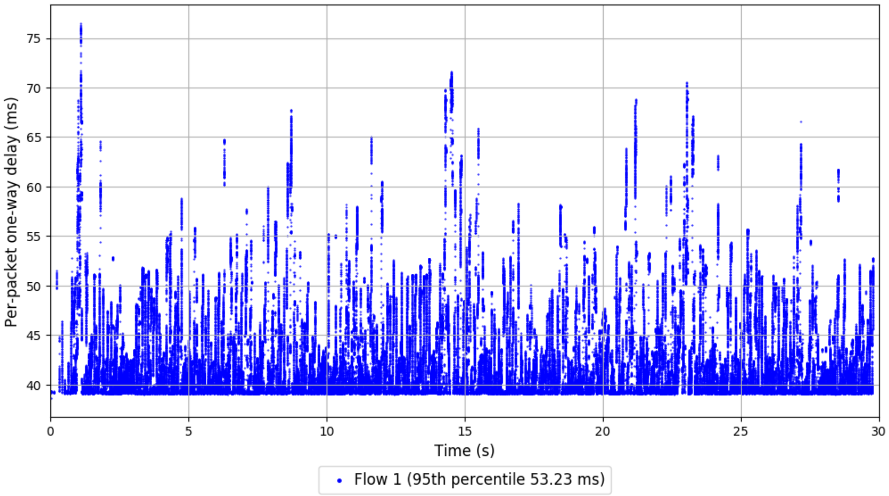




```
Run 3: Statistics of Indigo

Start at: 2017-12-01 01:48:24
End at: 2017-12-01 01:48:54
Local clock offset: -0.358 ms
Remote clock offset: -6.386 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.59 Mbit/s
95th percentile per-packet one-way delay: 53.225 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 50.59 Mbit/s
95th percentile per-packet one-way delay: 53.225 ms
Loss rate: 0.38%
```

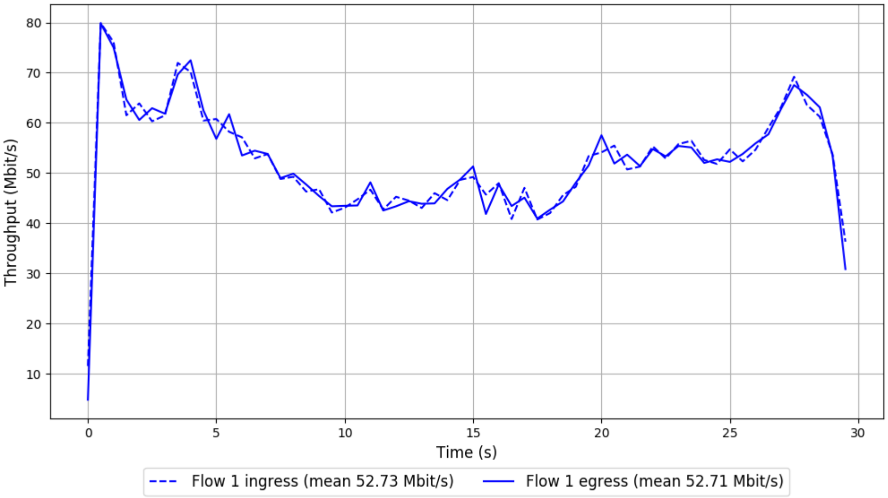
Run 3: Report of Indigo — Data Link

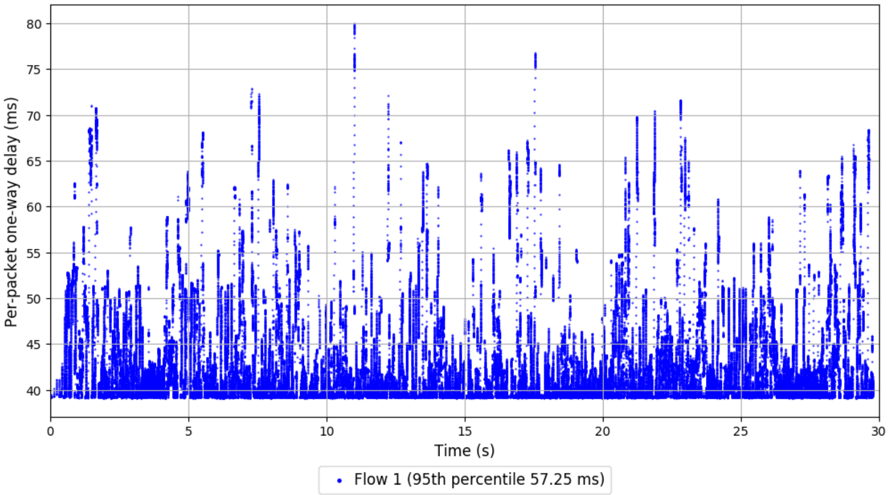




```
Run 4: Statistics of Indigo

Start at: 2017-12-01 02:05:12
End at: 2017-12-01 02:05:42
Local clock offset: -0.225 ms
Remote clock offset: -6.273 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 57.250 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 57.250 ms
Loss rate: 0.33%
```

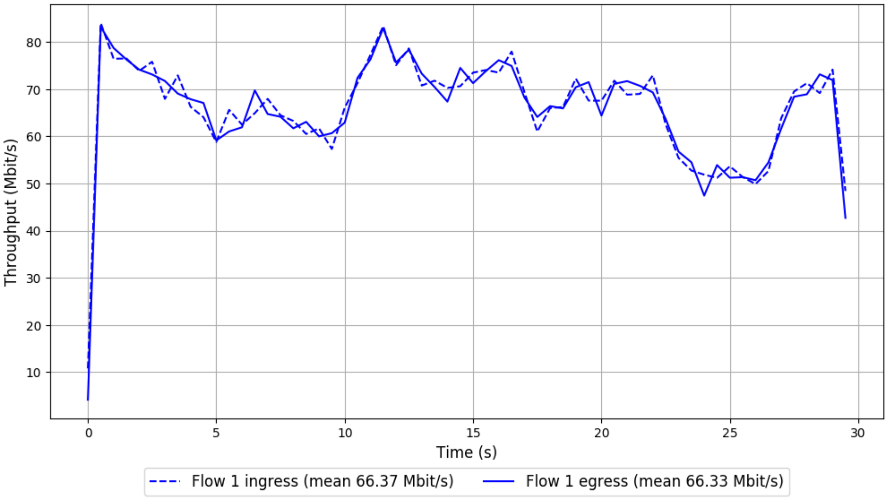
Run 4: Report of Indigo — Data Link

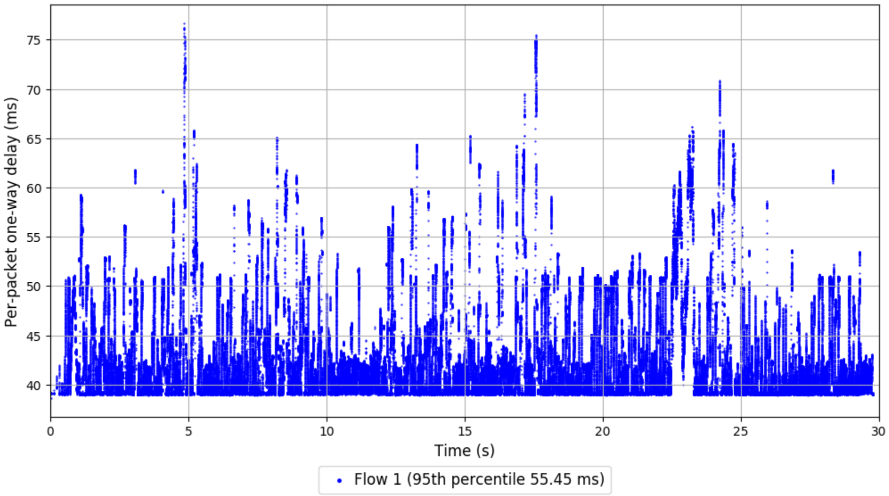




```
Run 5: Statistics of Indigo

Start at: 2017-12-01 02:22:04
End at: 2017-12-01 02:22:34
Local clock offset: -0.217 ms
Remote clock offset: -6.237 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.33 Mbit/s
95th percentile per-packet one-way delay: 55.453 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 66.33 Mbit/s
95th percentile per-packet one-way delay: 55.453 ms
Loss rate: 0.34%
```

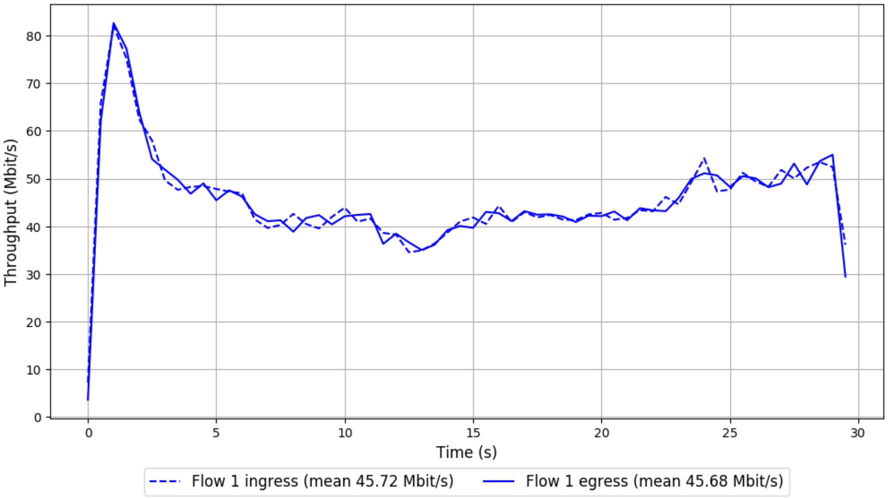
Run 5: Report of Indigo — Data Link

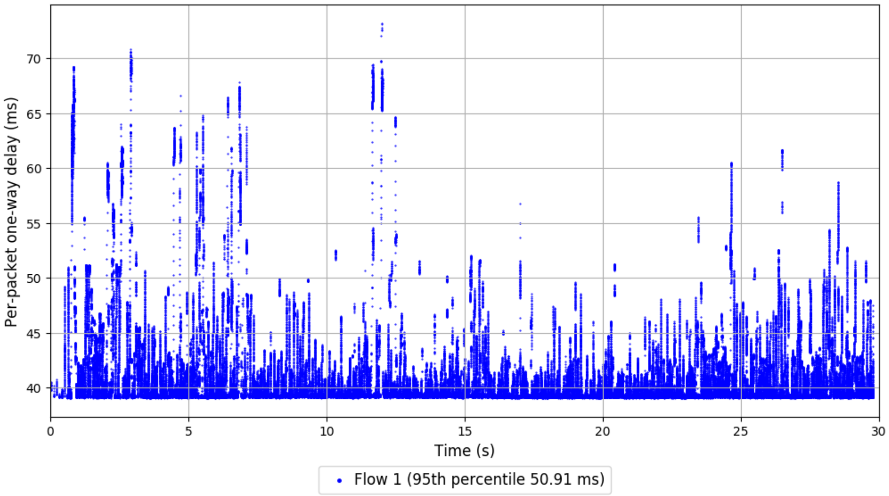




```
Run 6: Statistics of Indigo

Start at: 2017-12-01 02:38:47
End at: 2017-12-01 02:39:17
Local clock offset: -0.2 ms
Remote clock offset: -6.194 ms

# Below is generated by plot.py at 2017-12-01 06:58:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 50.913 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 50.913 ms
Loss rate: 0.39%
```

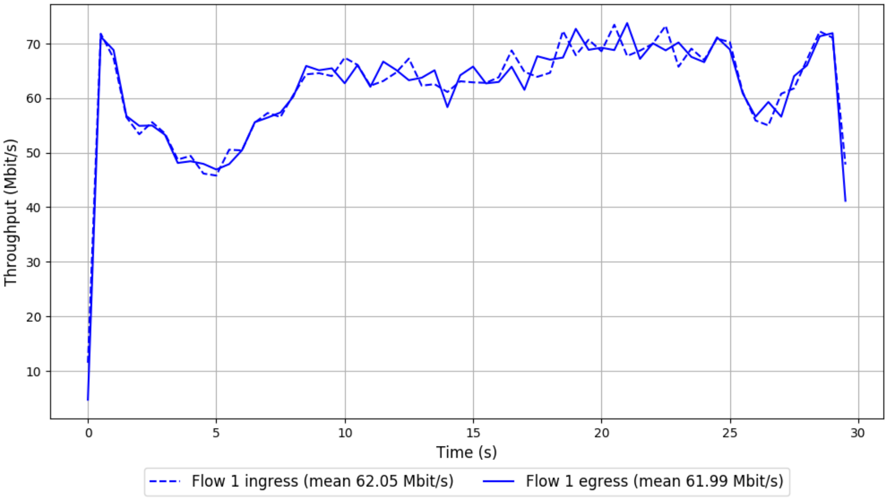
Run 6: Report of Indigo — Data Link

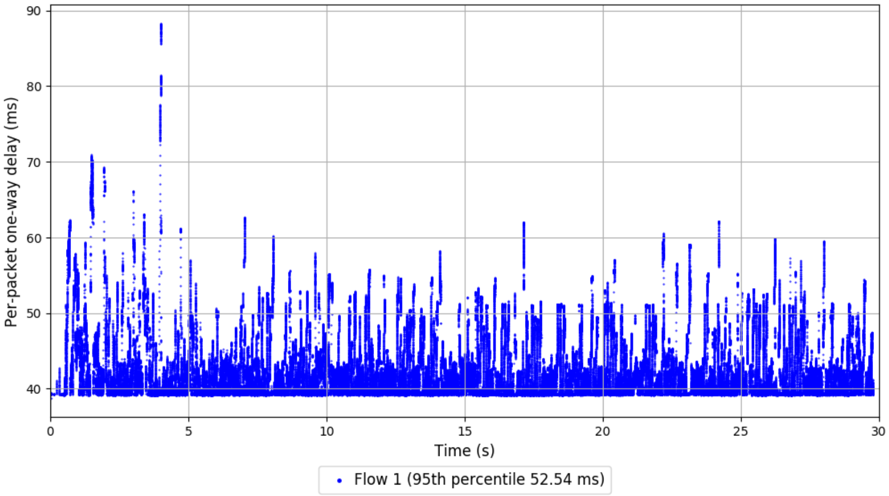




```
Run 7: Statistics of Indigo

Start at: 2017-12-01 02:55:35
End at: 2017-12-01 02:56:05
Local clock offset: -0.001 ms
Remote clock offset: -6.129 ms

# Below is generated by plot.py at 2017-12-01 06:59:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 52.536 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 52.536 ms
Loss rate: 0.35%
```

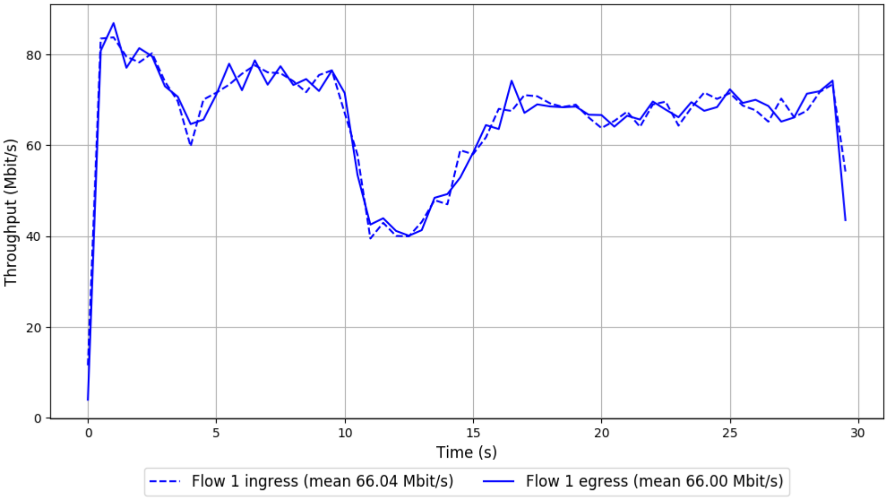
Run 7: Report of Indigo — Data Link

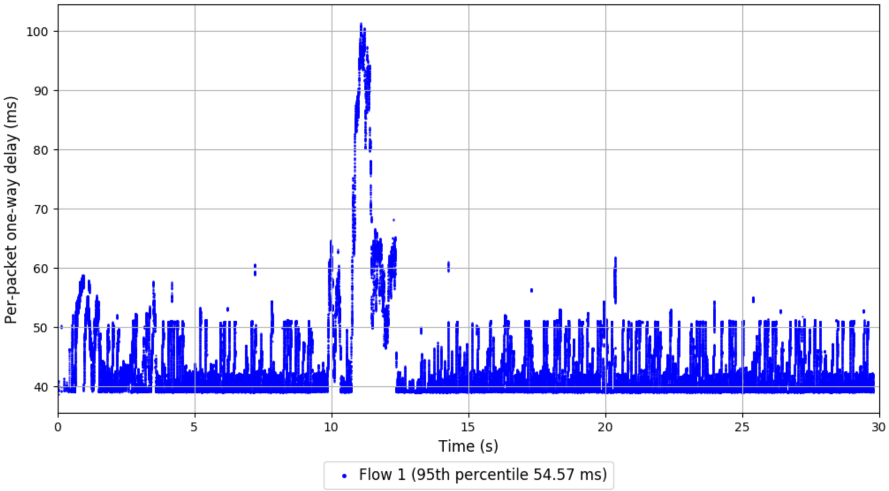




```
Run 8: Statistics of Indigo

Start at: 2017-12-01 03:12:18
End at: 2017-12-01 03:12:48
Local clock offset: -0.121 ms
Remote clock offset: -6.262 ms

# Below is generated by plot.py at 2017-12-01 06:59:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.00 Mbit/s
95th percentile per-packet one-way delay: 54.572 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 66.00 Mbit/s
95th percentile per-packet one-way delay: 54.572 ms
Loss rate: 0.35%
```

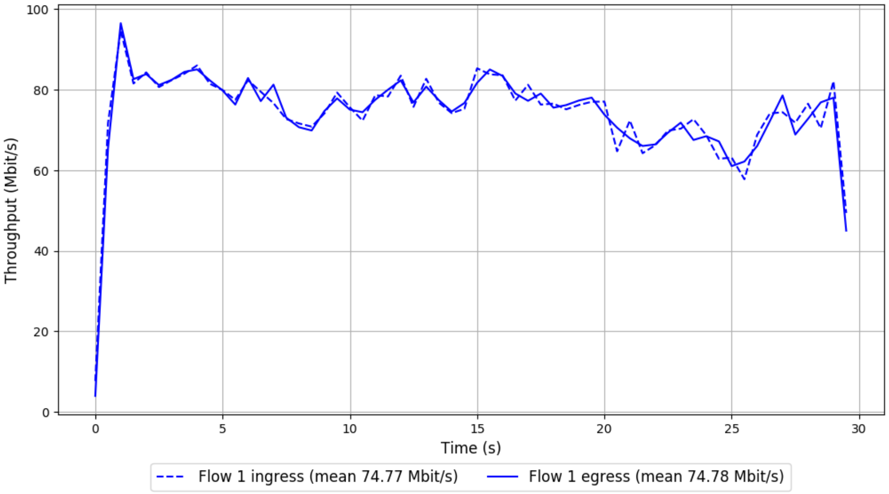
Run 8: Report of Indigo — Data Link

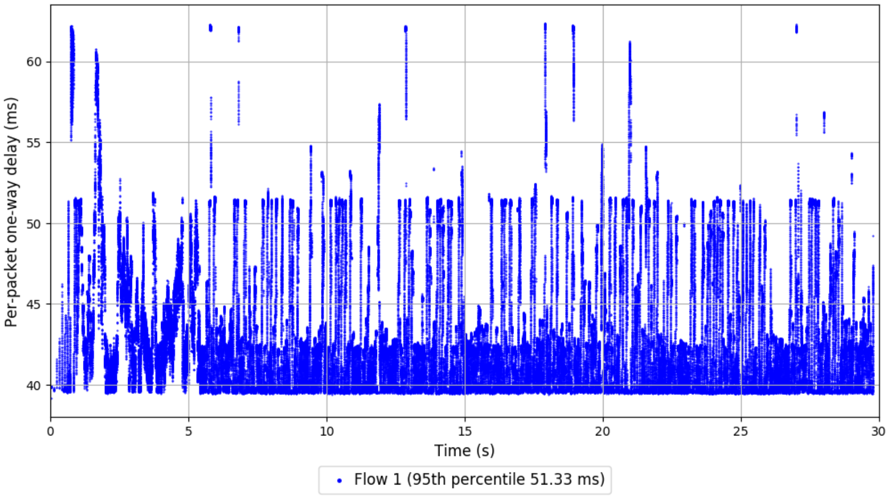




```
Run 9: Statistics of Indigo

Start at: 2017-12-01 03:28:58
End at: 2017-12-01 03:29:28
Local clock offset: -0.206 ms
Remote clock offset: -6.348 ms

# Below is generated by plot.py at 2017-12-01 06:59:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.78 Mbit/s
95th percentile per-packet one-way delay: 51.333 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 74.78 Mbit/s
95th percentile per-packet one-way delay: 51.333 ms
Loss rate: 0.26%
```

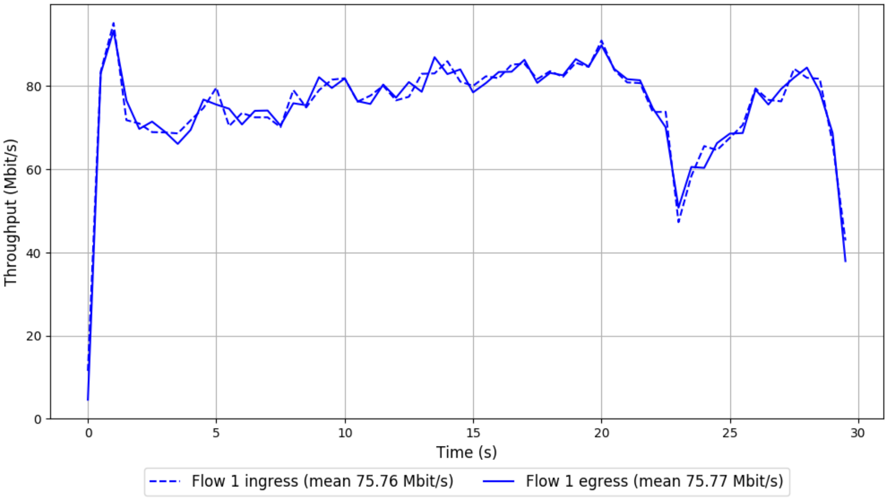
Run 9: Report of Indigo — Data Link

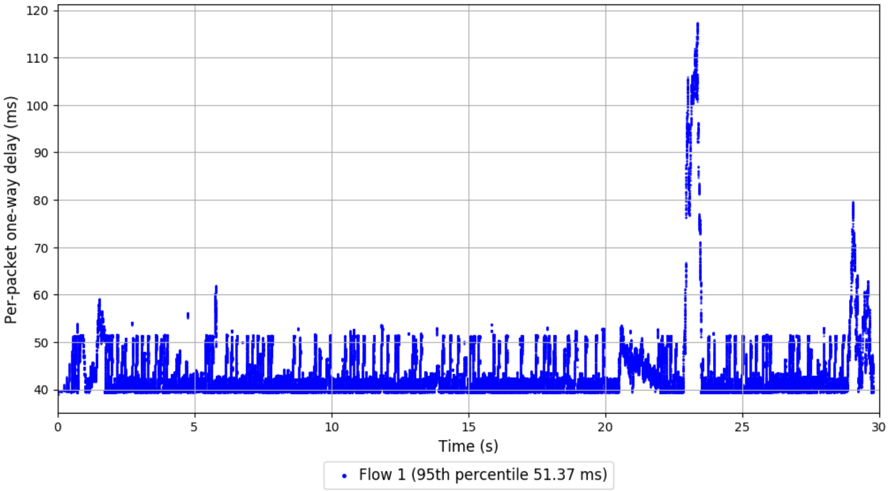




```
Run 10: Statistics of Indigo

Start at: 2017-12-01 03:45:55
End at: 2017-12-01 03:46:25
Local clock offset: -0.394 ms
Remote clock offset: -6.274 ms

# Below is generated by plot.py at 2017-12-01 06:59:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 51.374 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 51.374 ms
Loss rate: 0.26%
```

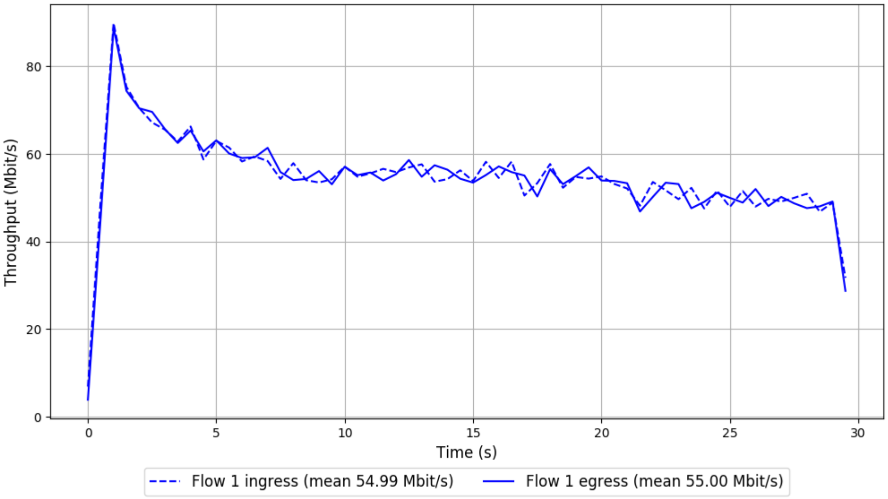
Run 10: Report of Indigo — Data Link

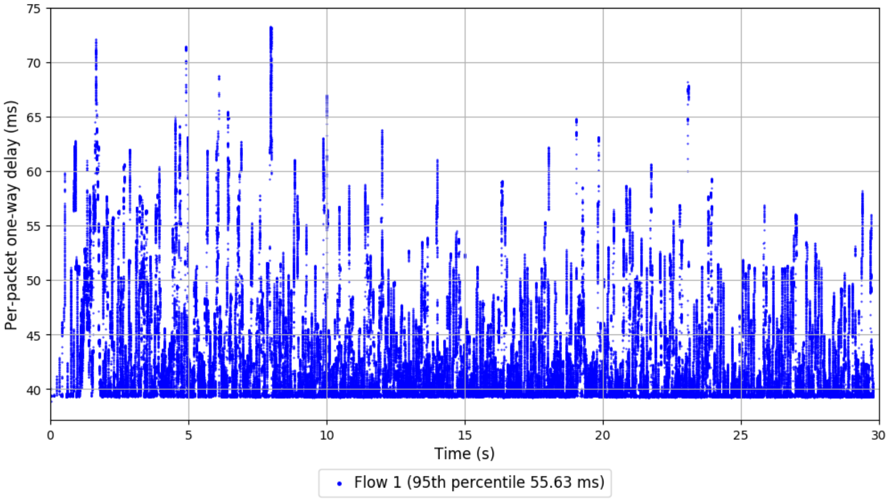




```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-01 01:10:10
End at: 2017-12-01 01:10:40
Local clock offset: -0.688 ms
Remote clock offset: -6.593 ms

# Below is generated by plot.py at 2017-12-01 06:59:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 55.635 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 55.635 ms
Loss rate: 0.25%
```

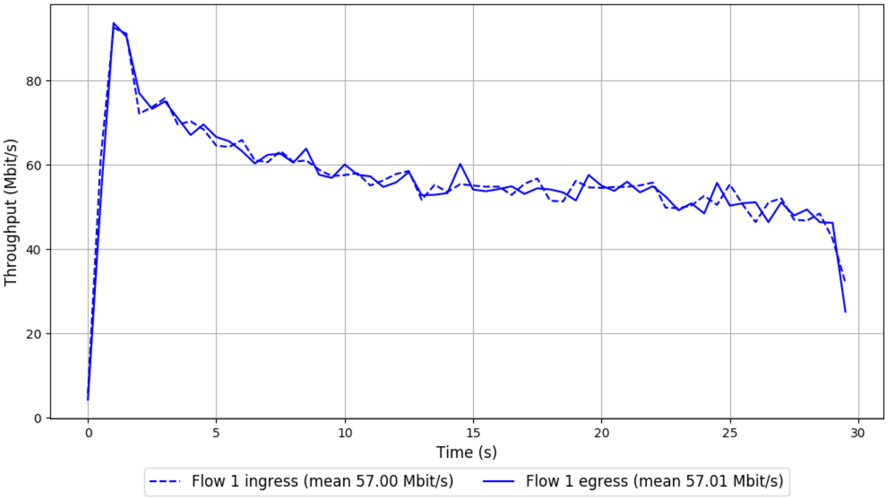
Run 1: Report of Indigo-calib — Data Link

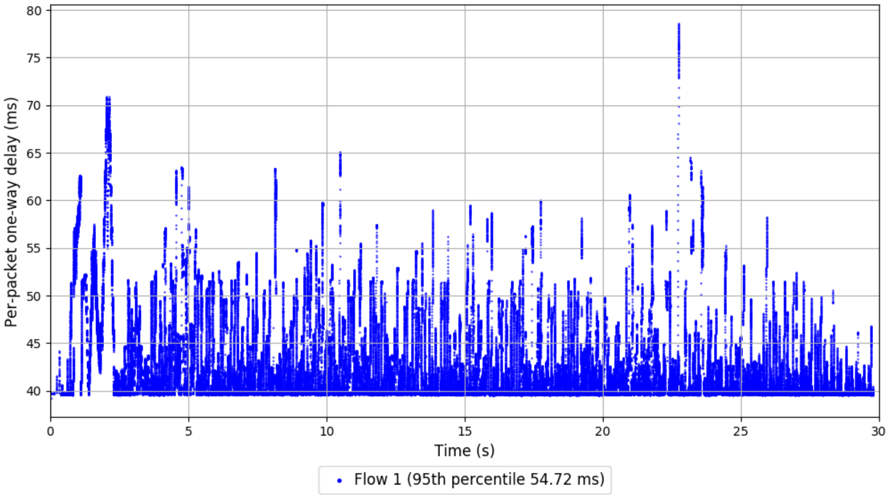




```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-01 01:26:50
End at: 2017-12-01 01:27:20
Local clock offset: -0.418 ms
Remote clock offset: -6.514 ms

# Below is generated by plot.py at 2017-12-01 06:59:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.01 Mbit/s
95th percentile per-packet one-way delay: 54.724 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 57.01 Mbit/s
95th percentile per-packet one-way delay: 54.724 ms
Loss rate: 0.26%
```

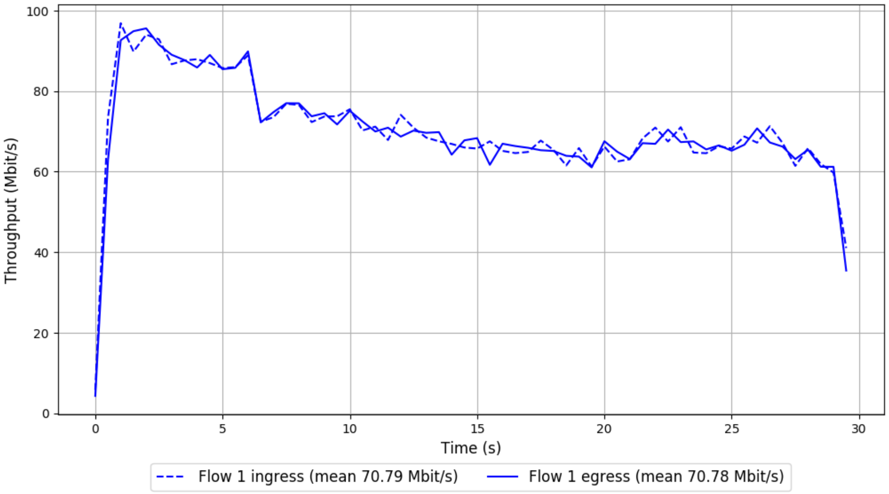
Run 2: Report of Indigo-calib — Data Link

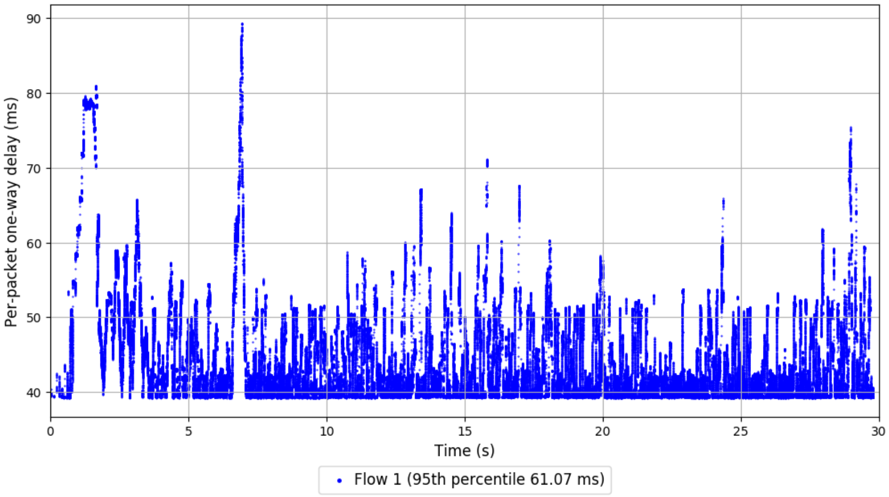




```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-01 01:43:42
End at: 2017-12-01 01:44:13
Local clock offset: -0.277 ms
Remote clock offset: -6.444 ms

# Below is generated by plot.py at 2017-12-01 06:59:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.78 Mbit/s
95th percentile per-packet one-way delay: 61.071 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 70.78 Mbit/s
95th percentile per-packet one-way delay: 61.071 ms
Loss rate: 0.31%
```

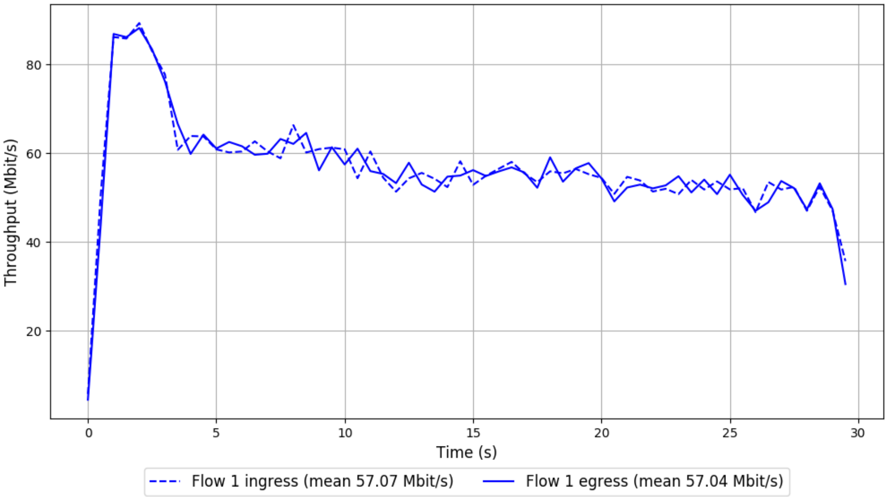
Run 3: Report of Indigo-calib — Data Link

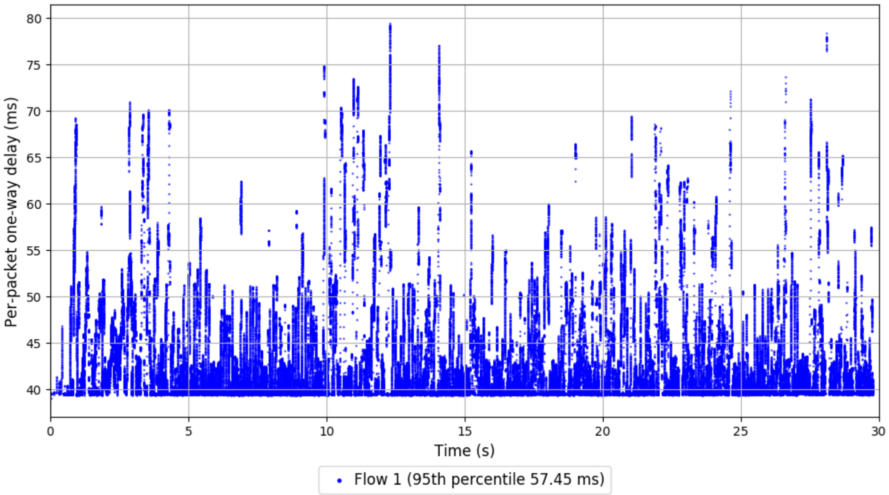




```
Run 4: Statistics of Indigo-calib

Start at: 2017-12-01 02:00:27
End at: 2017-12-01 02:00:57
Local clock offset: -0.351 ms
Remote clock offset: -6.327 ms

# Below is generated by plot.py at 2017-12-01 06:59:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 57.446 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 57.446 ms
Loss rate: 0.34%
```

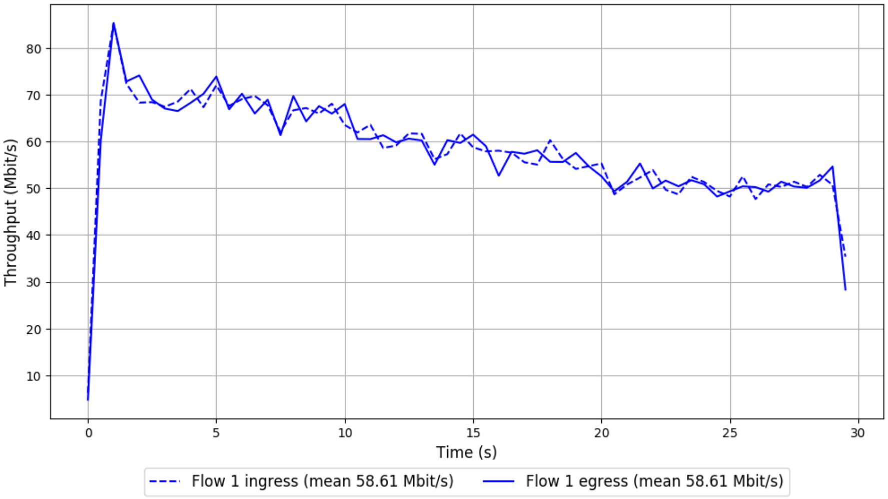
Run 4: Report of Indigo-calib — Data Link

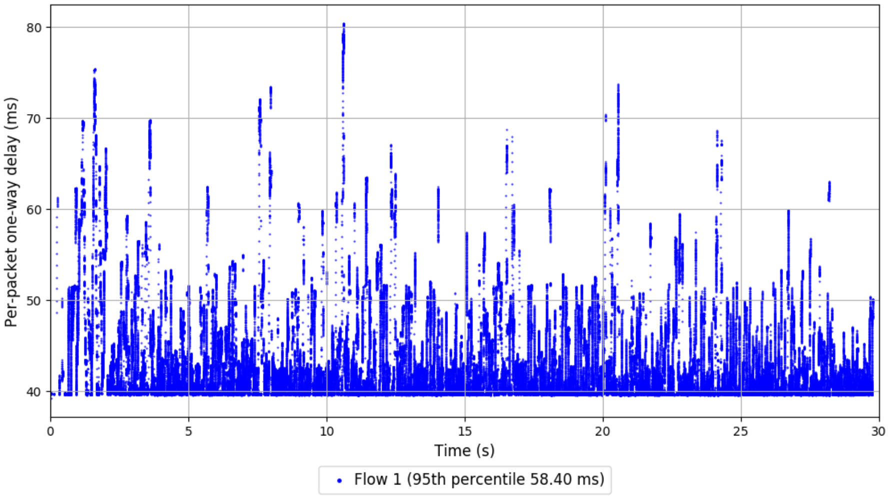




```
Run 5: Statistics of Indigo-calib

Start at: 2017-12-01 02:17:22
End at: 2017-12-01 02:17:52
Local clock offset: -0.093 ms
Remote clock offset: -6.306 ms

# Below is generated by plot.py at 2017-12-01 06:59:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.61 Mbit/s
95th percentile per-packet one-way delay: 58.402 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 58.61 Mbit/s
95th percentile per-packet one-way delay: 58.402 ms
Loss rate: 0.29%
```

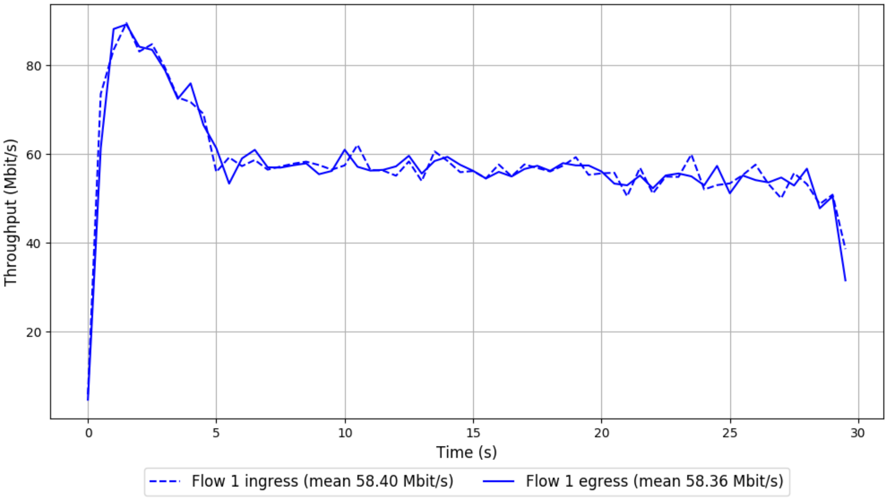
Run 5: Report of Indigo-calib — Data Link

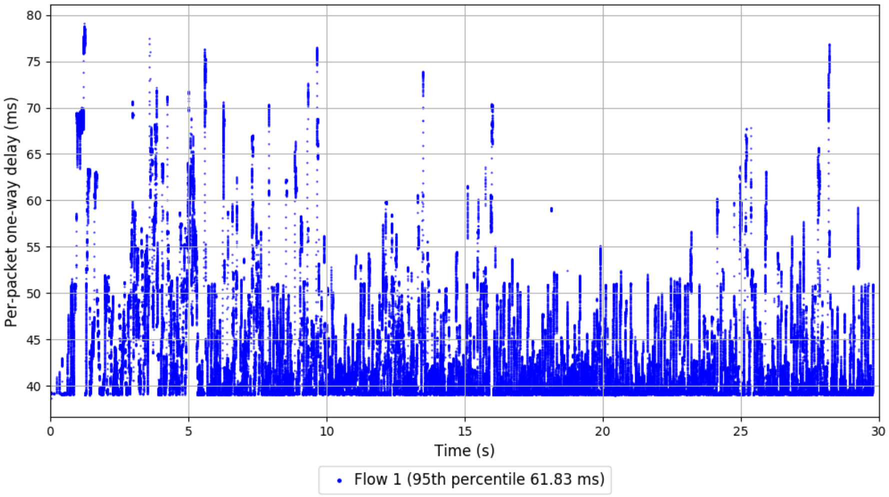




```
Run 6: Statistics of Indigo-calib

Start at: 2017-12-01 02:34:04
End at: 2017-12-01 02:34:34
Local clock offset: -0.19 ms
Remote clock offset: -6.18 ms

# Below is generated by plot.py at 2017-12-01 07:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 61.830 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 61.830 ms
Loss rate: 0.35%
```

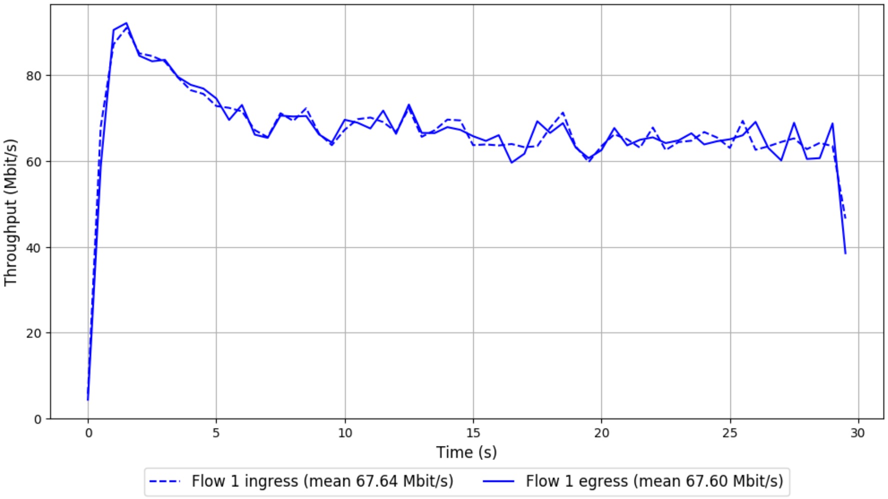
Run 6: Report of Indigo-calib — Data Link

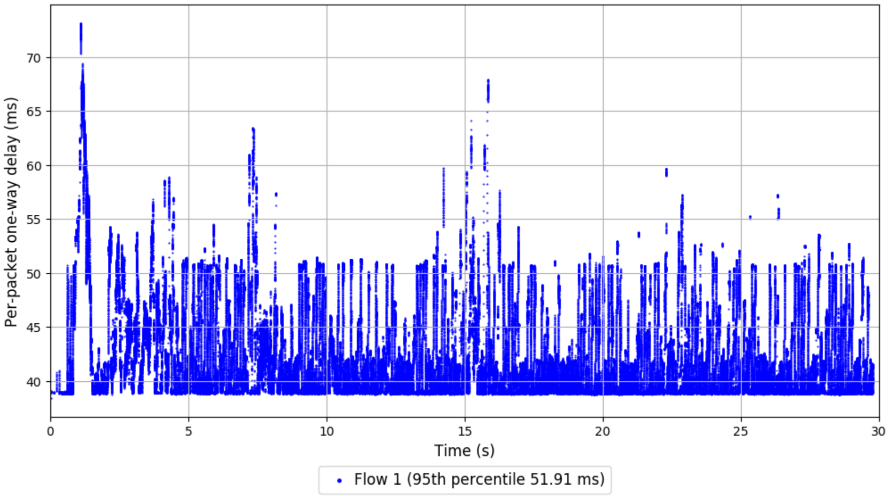




```
Run 7: Statistics of Indigo-calib

Start at: 2017-12-01 02:50:52
End at: 2017-12-01 02:51:22
Local clock offset: -0.095 ms
Remote clock offset: -6.111 ms

# Below is generated by plot.py at 2017-12-01 07:00:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.60 Mbit/s
95th percentile per-packet one-way delay: 51.906 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 67.60 Mbit/s
95th percentile per-packet one-way delay: 51.906 ms
Loss rate: 0.29%
```

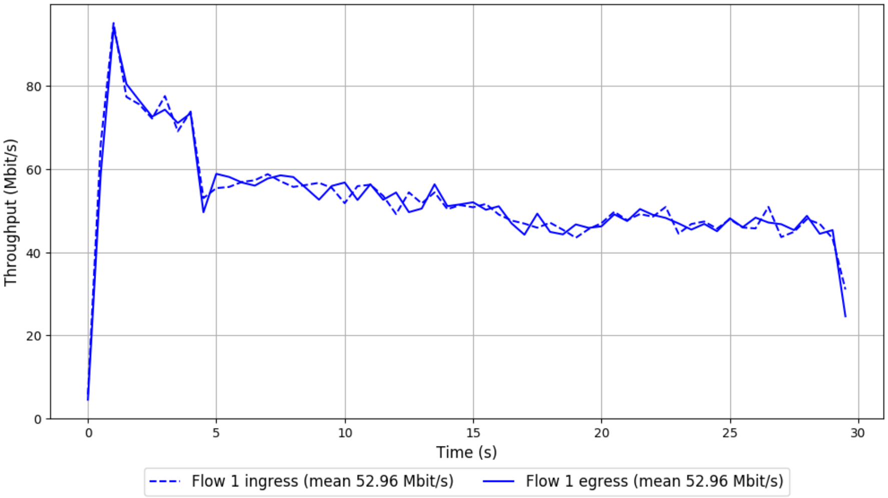
Run 7: Report of Indigo-calib — Data Link

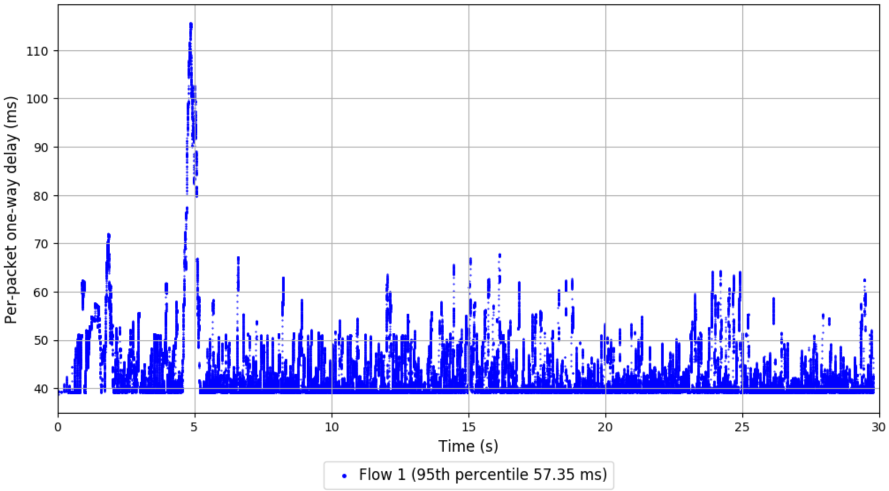




```
Run 8: Statistics of Indigo-calib

Start at: 2017-12-01 03:07:38
End at: 2017-12-01 03:08:08
Local clock offset: -0.039 ms
Remote clock offset: -6.182 ms

# Below is generated by plot.py at 2017-12-01 07:00:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.96 Mbit/s
95th percentile per-packet one-way delay: 57.353 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 52.96 Mbit/s
95th percentile per-packet one-way delay: 57.353 ms
Loss rate: 0.28%
```

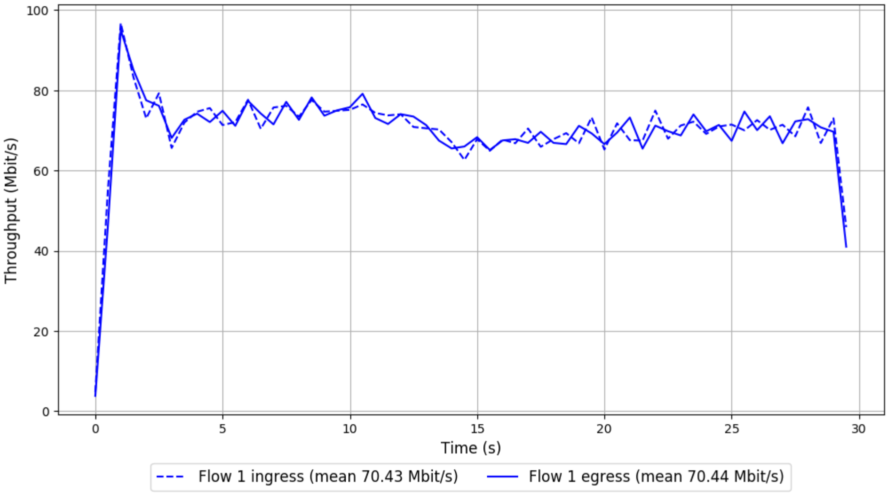
Run 8: Report of Indigo-calib — Data Link

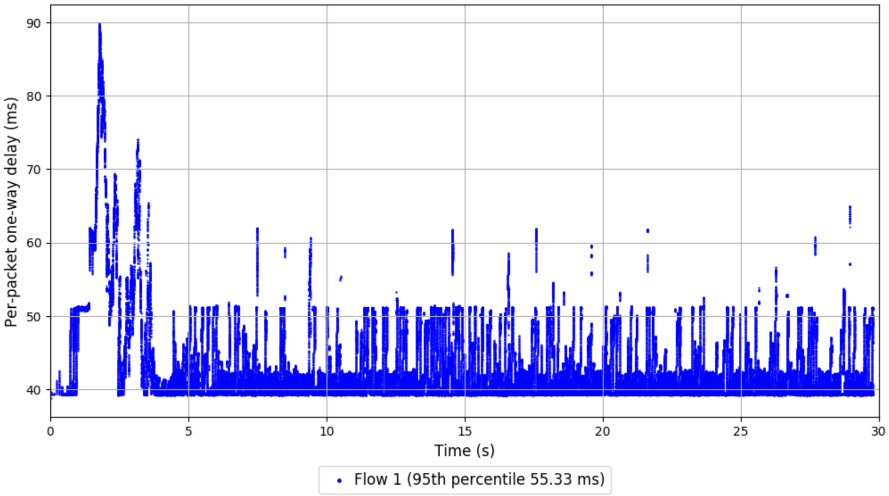




```
Run 9: Statistics of Indigo-calib

Start at: 2017-12-01 03:24:14
End at: 2017-12-01 03:24:45
Local clock offset: -0.171 ms
Remote clock offset: -6.298 ms

# Below is generated by plot.py at 2017-12-01 07:00:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 55.326 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 55.326 ms
Loss rate: 0.29%
```

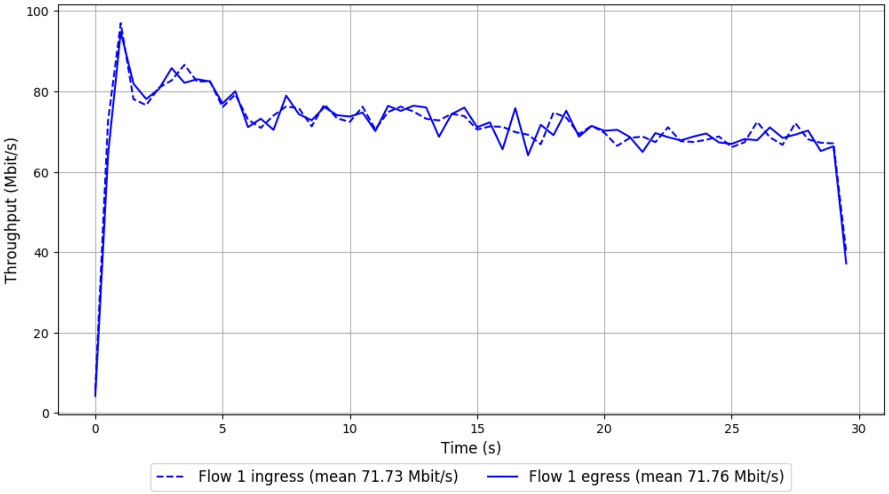
Run 9: Report of Indigo-calib — Data Link



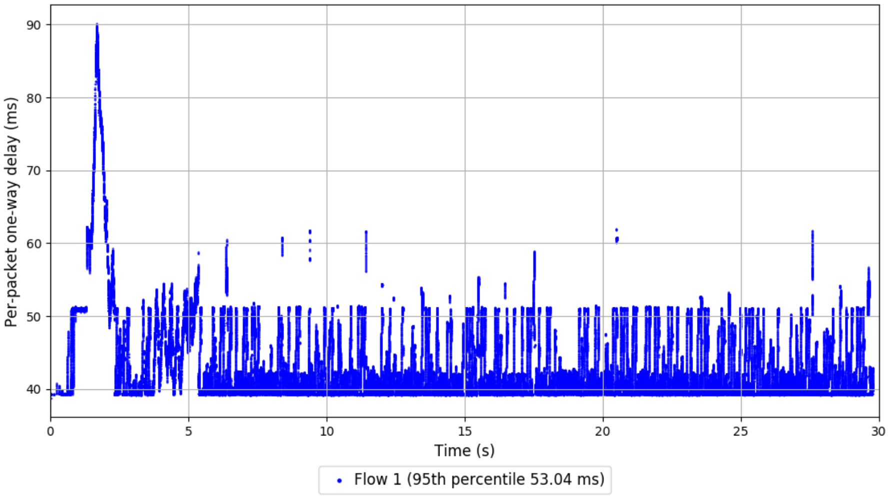


```
Run 10: Statistics of Indigo-calib

Start at: 2017-12-01 03:41:11
End at: 2017-12-01 03:41:41
Local clock offset: -0.16 ms
Remote clock offset: -6.251 ms

# Below is generated by plot.py at 2017-12-01 07:00:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.76 Mbit/s
95th percentile per-packet one-way delay: 53.041 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 71.76 Mbit/s
95th percentile per-packet one-way delay: 53.041 ms
Loss rate: 0.23%
```

Run 10: Report of Indigo-calib — Data Link



Throughput (Mbit/s)
100
80
60
40
20
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 71.73 Mbit/s)
Flow 1 egress (mean 71.76 Mbit/s)



Per-packet one-way delay (ms)
90
80
70
60
50
40
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 53.04 ms)