Pantheon Report

Generated at 2018-02-20 05:17:36 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

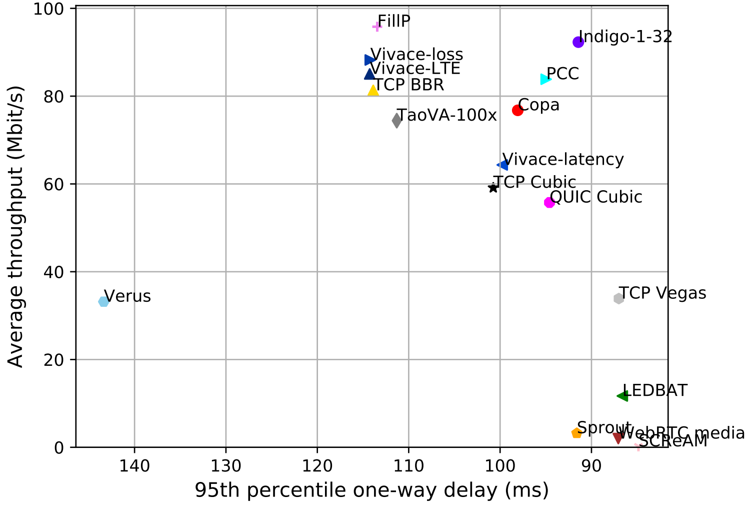
Each test lasted for 30 seconds running 1 flow.

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

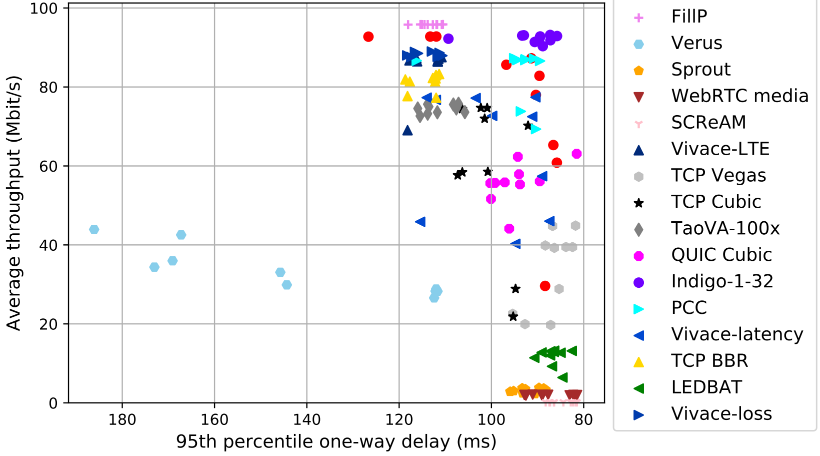
Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

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

```
Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```



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

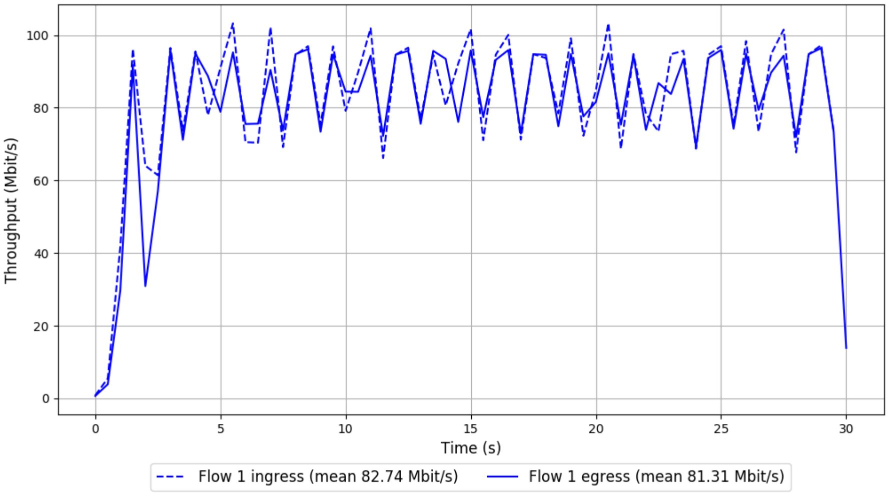


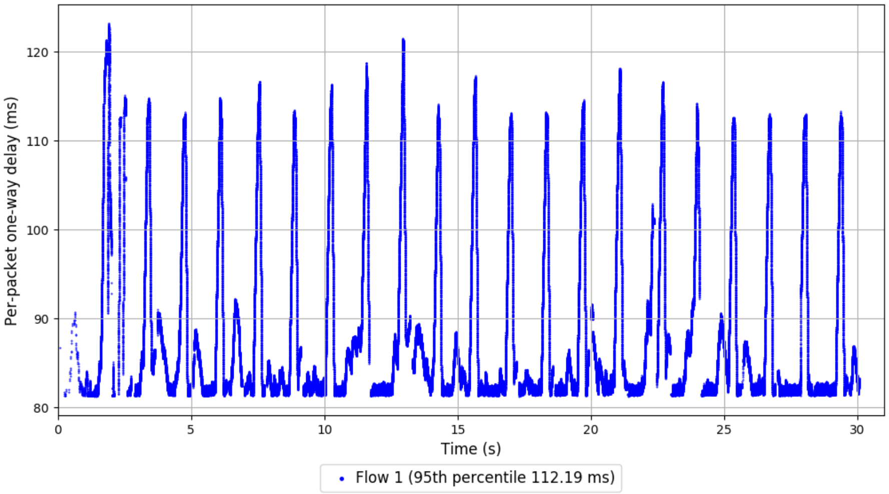
test from AWS Brazil 2 Ethernet to Colombia Ethernet, 10 runs of 30s each per scheme

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	81.33	113.88	2.04
TCP Cubic	10	59.13	100.75	0.40
LEDBAT	10	11.69	86.63	0.02
PCC	10	83.85	94.96	1.50
QUIC Cubic	10	55.77	94.59	0.27
SCReAM	10	0.22	84.86	0.00
WebRTC media	10	1.99	87.07	0.02
Sprout	10	3.21	91.60	0.00
TaoVA-100x	10	74.42	111.31	0.57
TCP Vegas	10	33.88	87.01	0.43
Verus	10	33.17	143.37	52.46
Copa	10	76.77	98.07	27.32
FillP	10	95.81	113.44	15.19
Indigo-1-32	10	92.30	91.43	1.02
Vivace-latency	10	64.33	99.77	0.11
Vivace-loss	10	88.24	114.21	2.38
Vivace-LTE	10	85.06	114.27	1.85

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-20 00:53:03
End at: 2018-02-20 00:53:33
Local clock offset: -4.213 ms
Remote clock offset: -2.469 ms

# Below is generated by plot.py at 2018-02-20 04:56:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 112.188 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 112.188 ms
Loss rate: 1.74%
```

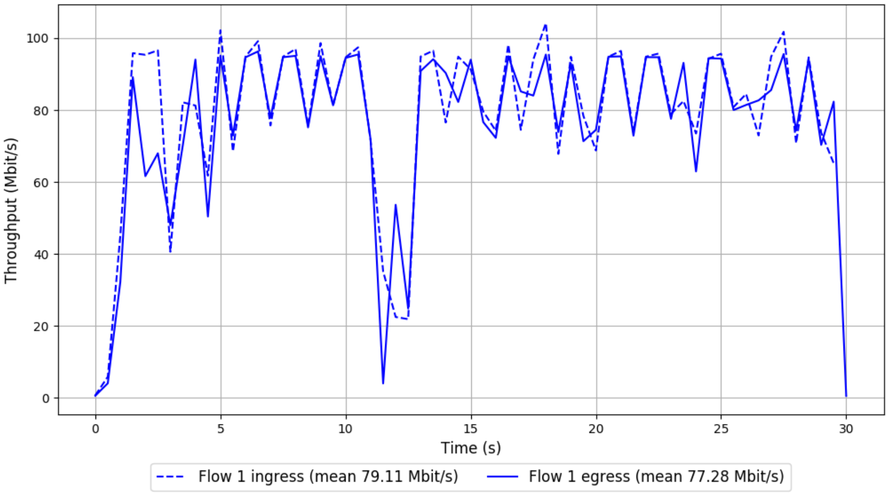
Run 1: Report of TCP BBR — Data Link

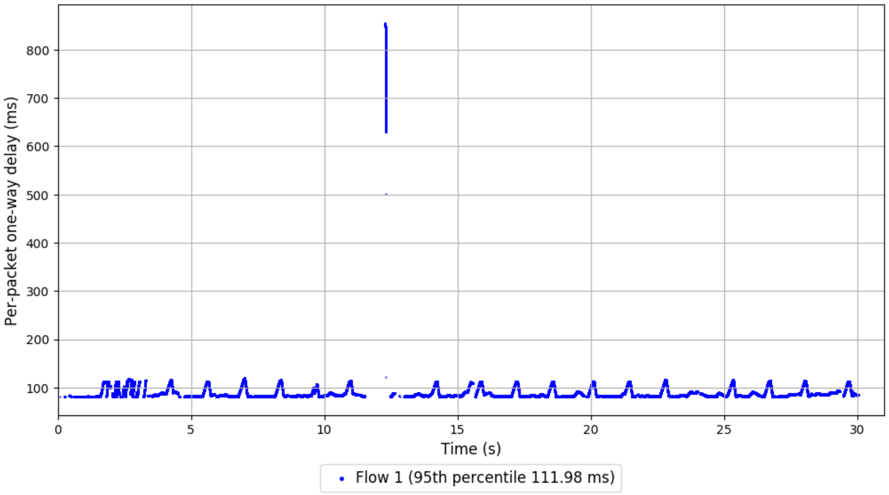




```
Run 2: Statistics of TCP BBR

Start at: 2018-02-20 01:15:02
End at: 2018-02-20 01:15:32
Local clock offset: -2.823 ms
Remote clock offset: -1.229 ms

# Below is generated by plot.py at 2018-02-20 04:56:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.28 Mbit/s
95th percentile per-packet one-way delay: 111.981 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 77.28 Mbit/s
95th percentile per-packet one-way delay: 111.981 ms
Loss rate: 2.31%
```

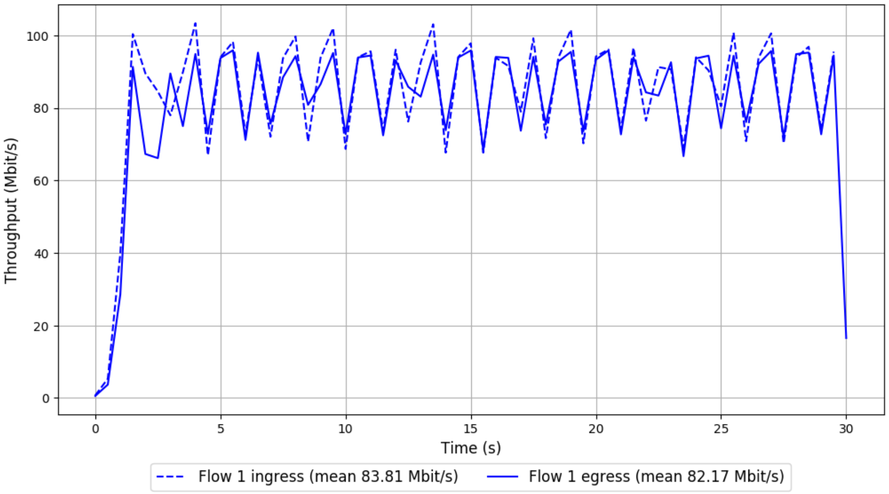
Run 2: Report of TCP BBR — Data Link

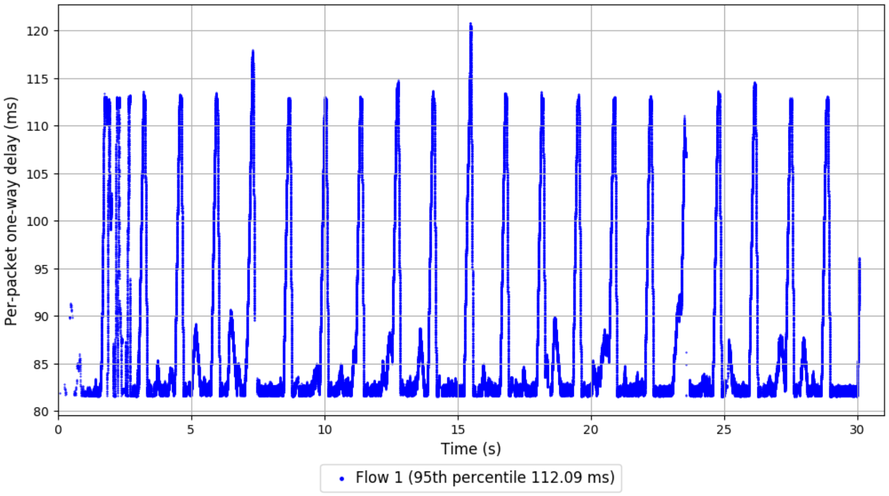




```
Run 3: Statistics of TCP BBR

Start at: 2018-02-20 01:37:21
End at: 2018-02-20 01:37:51
Local clock offset: -7.521 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-02-20 04:56:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.17 Mbit/s
95th percentile per-packet one-way delay: 112.090 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 82.17 Mbit/s
95th percentile per-packet one-way delay: 112.090 ms
Loss rate: 1.91%
```

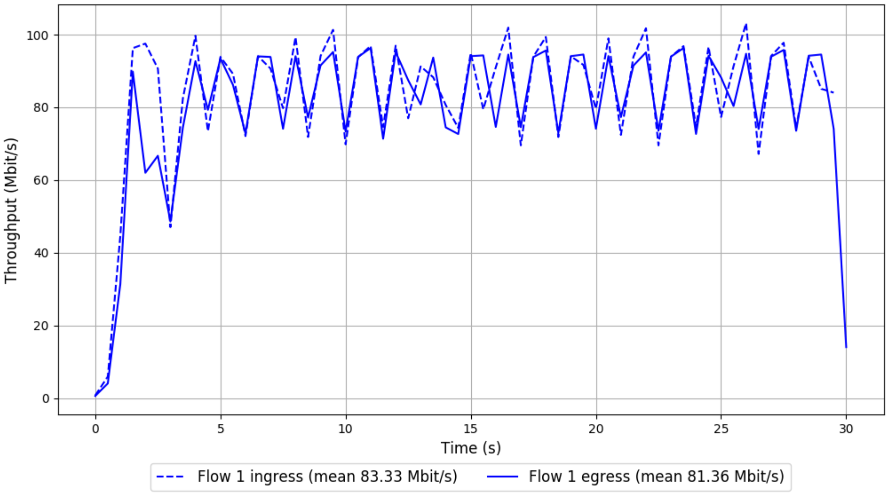
Run 3: Report of TCP BBR — Data Link

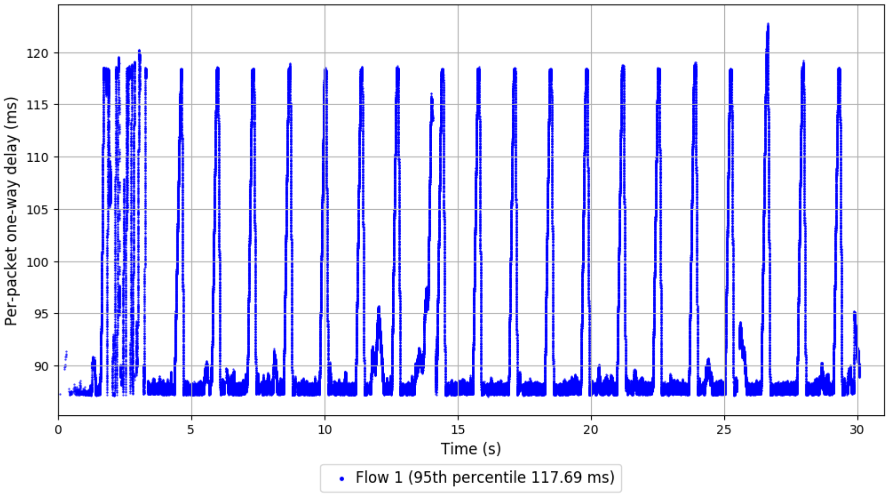




```
Run 4: Statistics of TCP BBR

Start at: 2018-02-20 01:59:33
End at: 2018-02-20 02:00:03
Local clock offset: -8.037 ms
Remote clock offset: 5.823 ms

# Below is generated by plot.py at 2018-02-20 04:56:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 117.686 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 117.686 ms
Loss rate: 2.36%
```

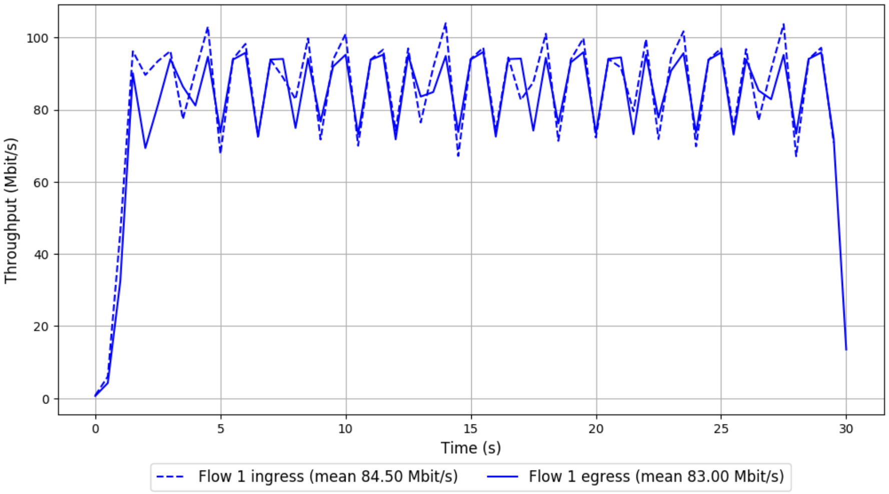
Run 4: Report of TCP BBR — Data Link

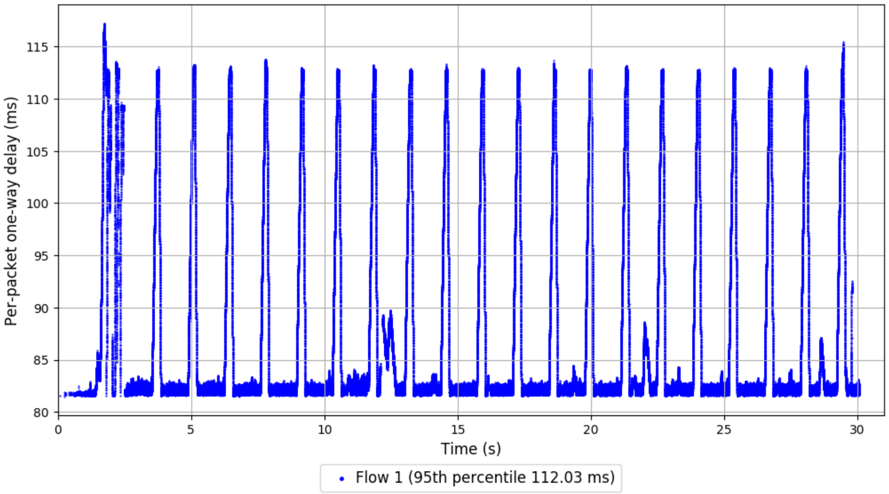




```
Run 5: Statistics of TCP BBR

Start at: 2018-02-20 02:21:39
End at: 2018-02-20 02:22:09
Local clock offset: -8.407 ms
Remote clock offset: 0.746 ms

# Below is generated by plot.py at 2018-02-20 04:56:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 112.026 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 112.026 ms
Loss rate: 1.78%
```

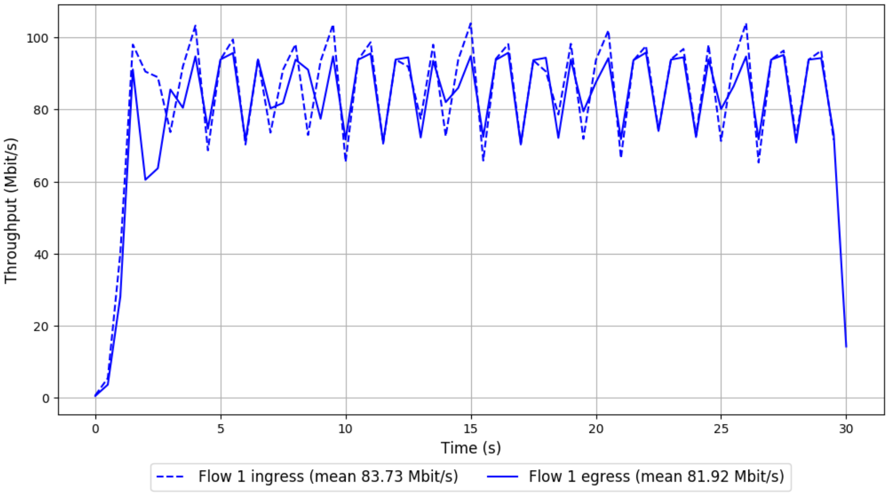
Run 5: Report of TCP BBR — Data Link

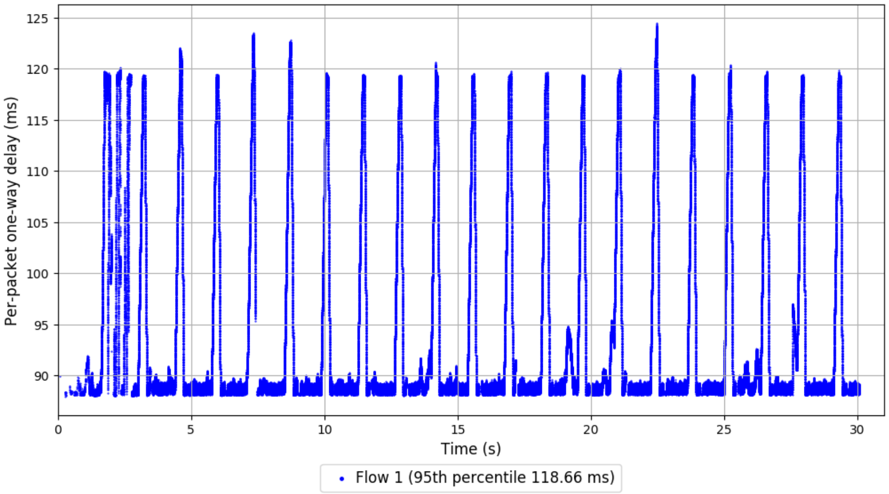




```
Run 6: Statistics of TCP BBR

Start at: 2018-02-20 02:43:40
End at: 2018-02-20 02:44:10
Local clock offset: -4.066 ms
Remote clock offset: 7.785 ms

# Below is generated by plot.py at 2018-02-20 04:56:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.92 Mbit/s
95th percentile per-packet one-way delay: 118.656 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 81.92 Mbit/s
95th percentile per-packet one-way delay: 118.656 ms
Loss rate: 2.17%
```

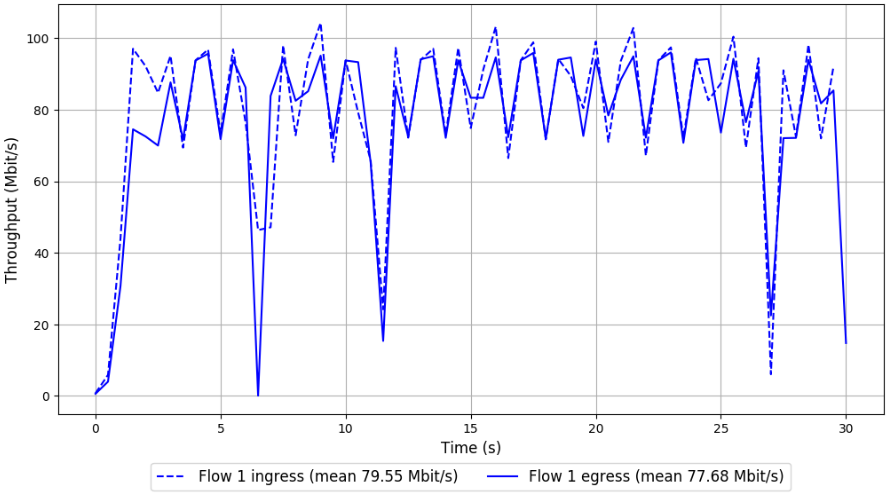
Run 6: Report of TCP BBR — Data Link

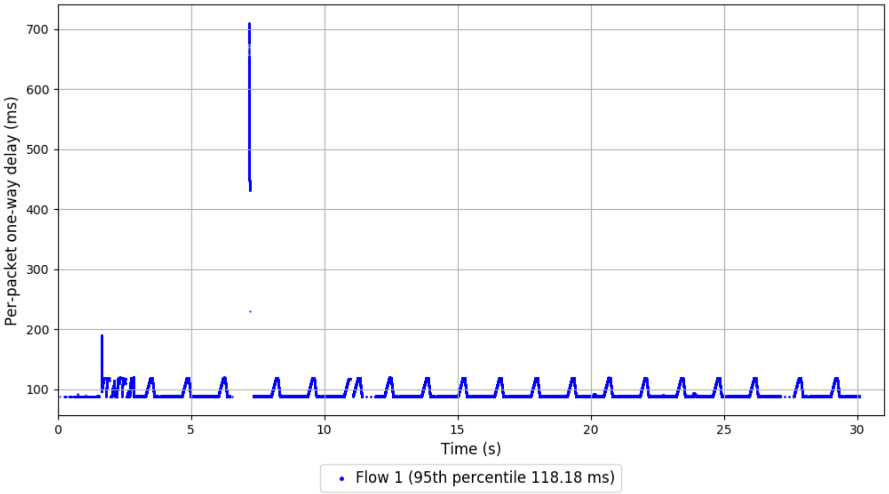




```
Run 7: Statistics of TCP BBR

Start at: 2018-02-20 03:05:42
End at: 2018-02-20 03:06:12
Local clock offset: -5.531 ms
Remote clock offset: 8.283 ms

# Below is generated by plot.py at 2018-02-20 04:56:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.68 Mbit/s
95th percentile per-packet one-way delay: 118.179 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 77.68 Mbit/s
95th percentile per-packet one-way delay: 118.179 ms
Loss rate: 2.35%
```

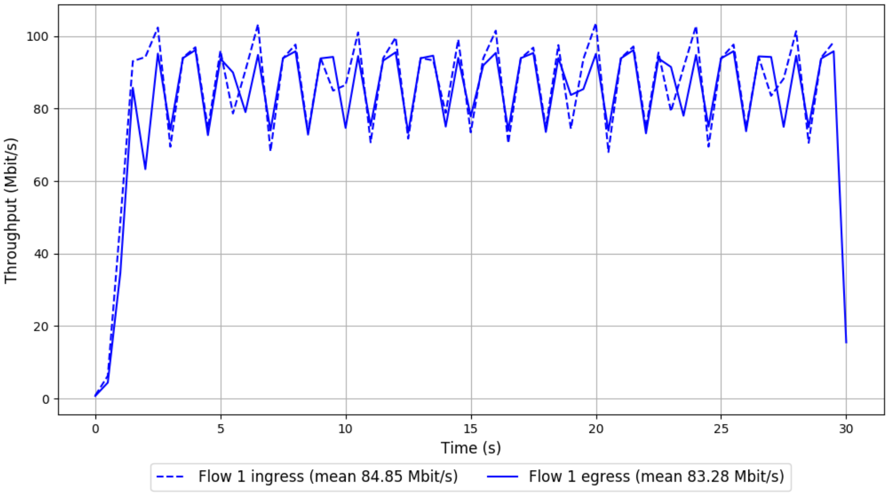
Run 7: Report of TCP BBR — Data Link

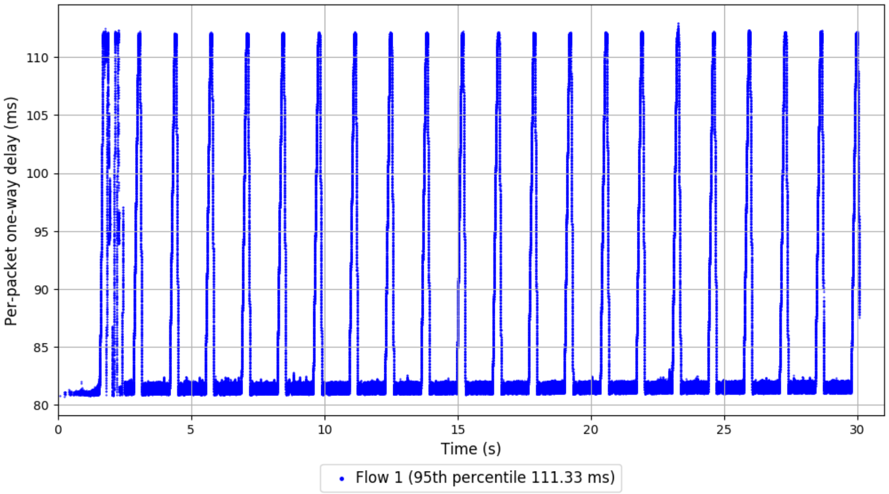




```
Run 8: Statistics of TCP BBR

Start at: 2018-02-20 03:27:46
End at: 2018-02-20 03:28:16
Local clock offset: -8.124 ms
Remote clock offset: -2.544 ms

# Below is generated by plot.py at 2018-02-20 04:56:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.28 Mbit/s
95th percentile per-packet one-way delay: 111.326 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 83.28 Mbit/s
95th percentile per-packet one-way delay: 111.326 ms
Loss rate: 1.83%
```

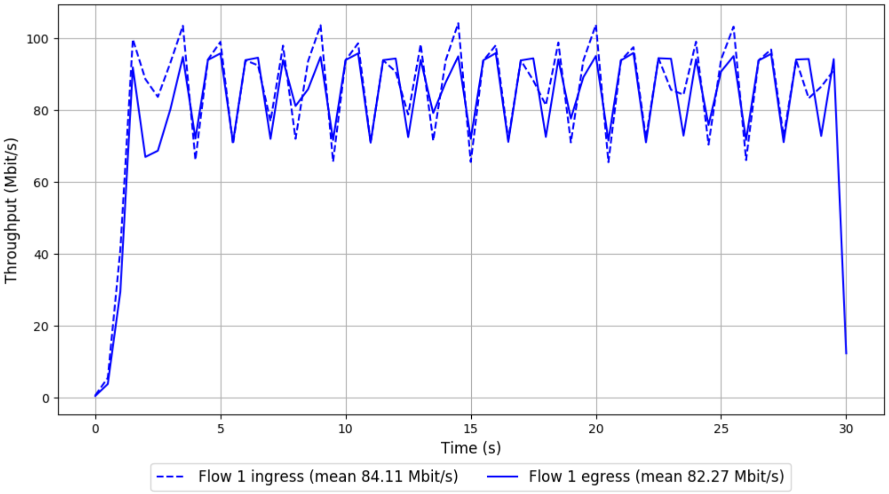
Run 8: Report of TCP BBR — Data Link

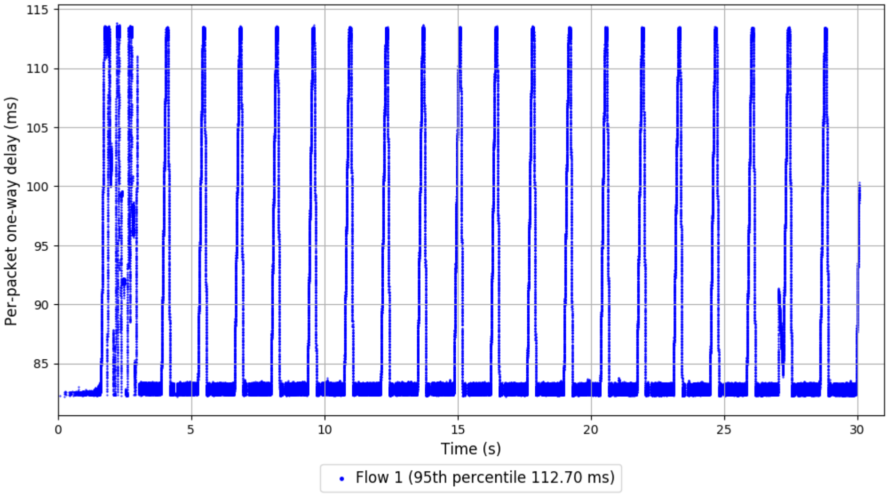




```
Run 9: Statistics of TCP BBR

Start at: 2018-02-20 03:50:10
End at: 2018-02-20 03:50:40
Local clock offset: -16.355 ms
Remote clock offset: -5.858 ms

# Below is generated by plot.py at 2018-02-20 04:57:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.27 Mbit/s
95th percentile per-packet one-way delay: 112.697 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 82.27 Mbit/s
95th percentile per-packet one-way delay: 112.697 ms
Loss rate: 2.13%
```

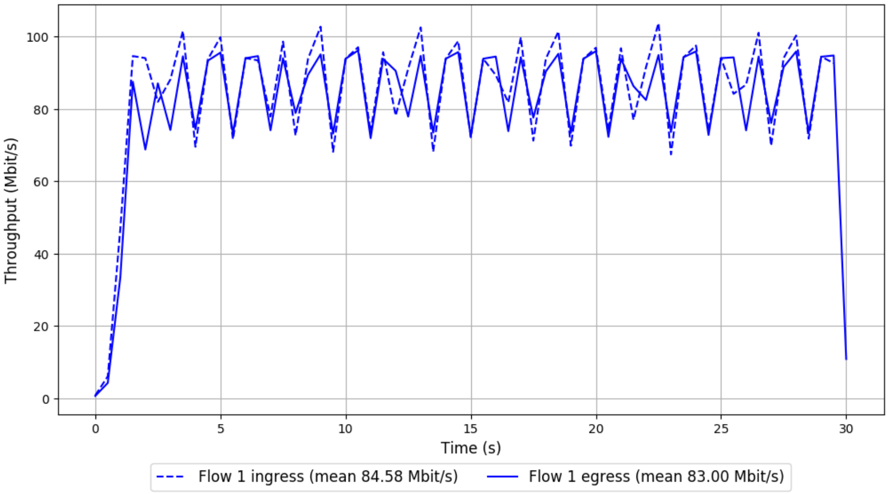
Run 9: Report of TCP BBR — Data Link

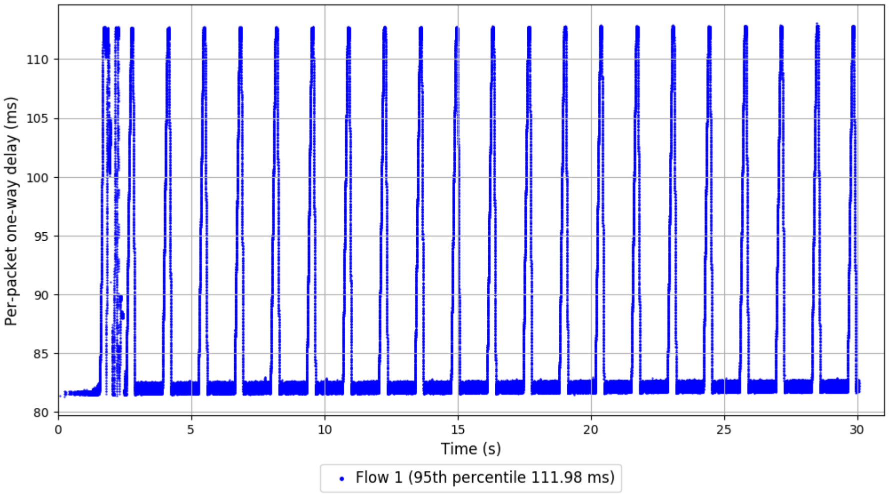




```
Run 10: Statistics of TCP BBR

Start at: 2018-02-20 04:12:36
End at: 2018-02-20 04:13:06
Local clock offset: -16.14 ms
Remote clock offset: -5.418 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 111.982 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 111.982 ms
Loss rate: 1.87%
```

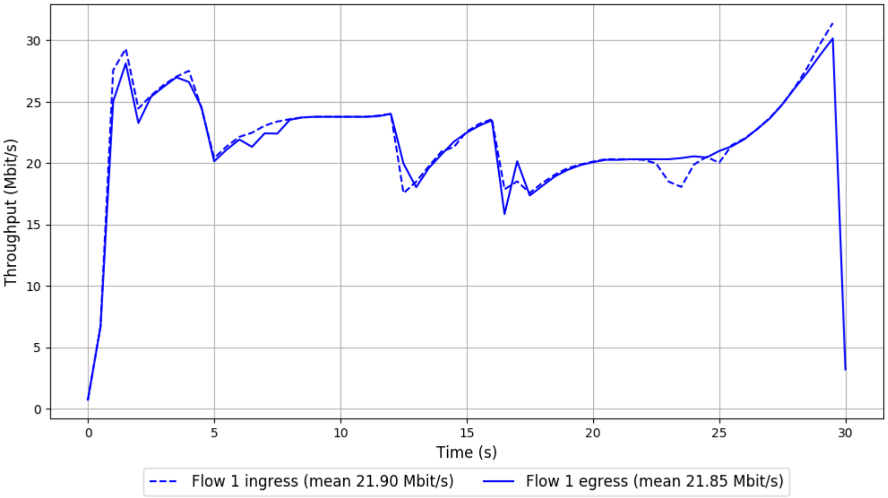
Run 10: Report of TCP BBR — Data Link

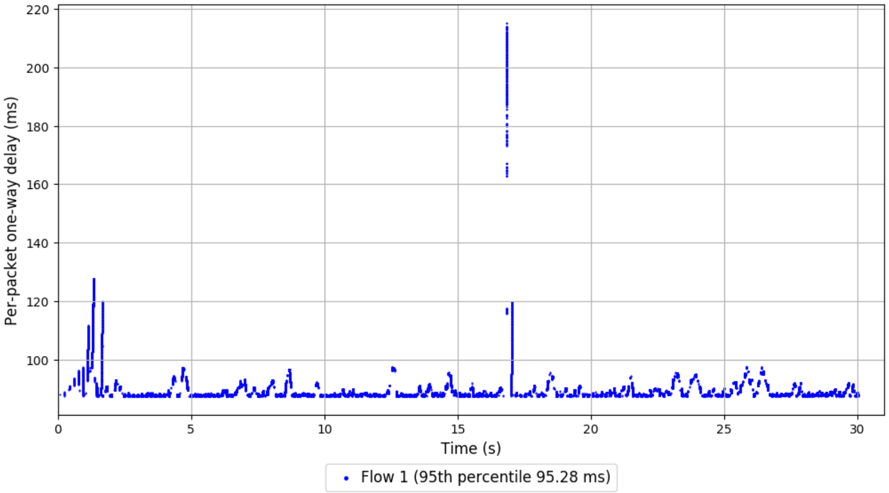




```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-20 00:59:18
End at: 2018-02-20 00:59:48
Local clock offset: -3.606 ms
Remote clock offset: 4.168 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.85 Mbit/s
95th percentile per-packet one-way delay: 95.282 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 21.85 Mbit/s
95th percentile per-packet one-way delay: 95.282 ms
Loss rate: 0.22%
```

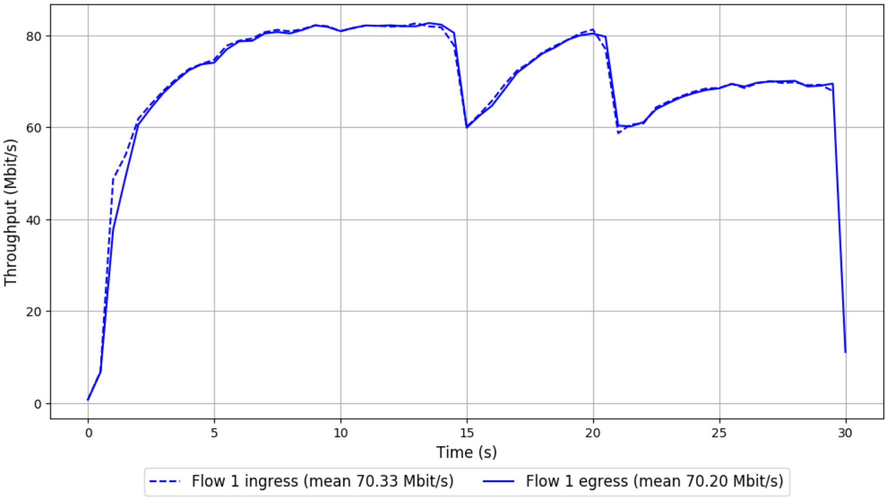
Run 1: Report of TCP Cubic — Data Link

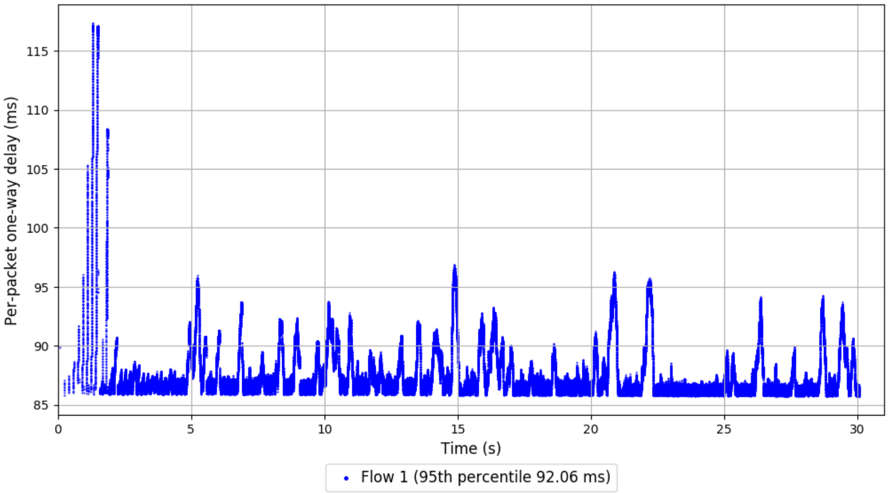




```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-20 01:21:20
End at: 2018-02-20 01:21:50
Local clock offset: -4.637 ms
Remote clock offset: 3.954 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 92.055 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 92.055 ms
Loss rate: 0.20%
```

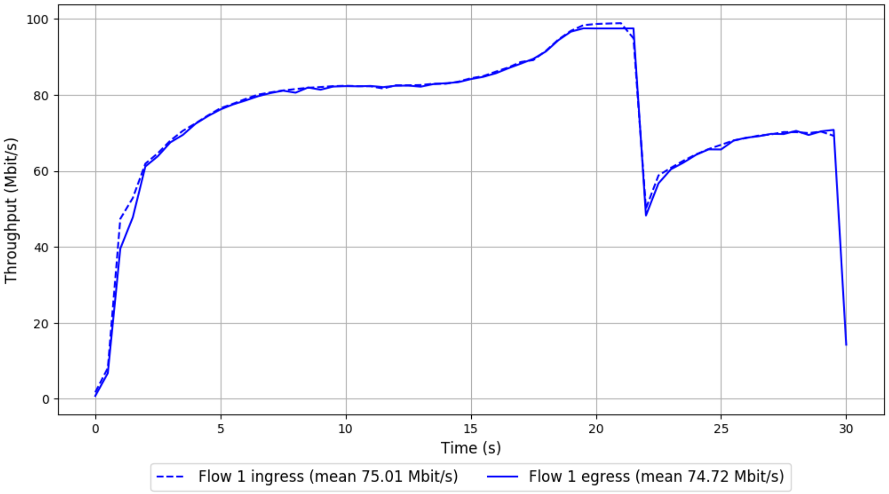
Run 2: Report of TCP Cubic — Data Link

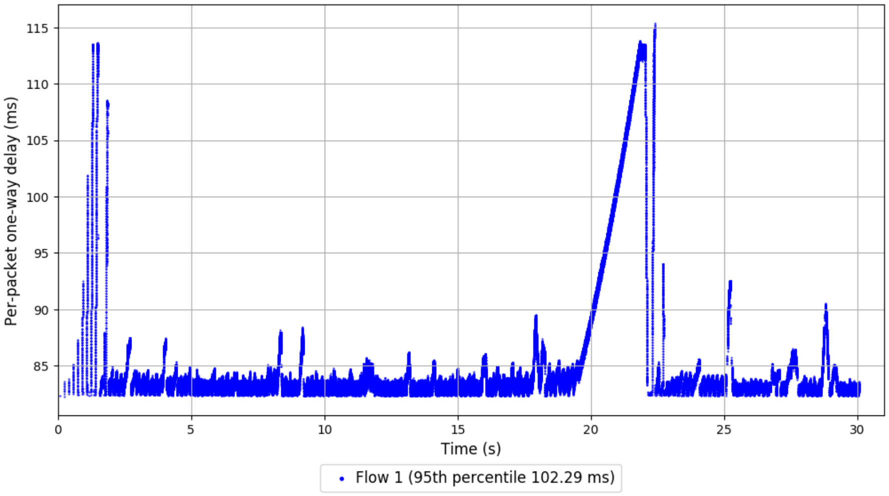




```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-20 01:43:37
End at: 2018-02-20 01:44:07
Local clock offset: -7.952 ms
Remote clock offset: 0.639 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 102.291 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 102.291 ms
Loss rate: 0.38%
```

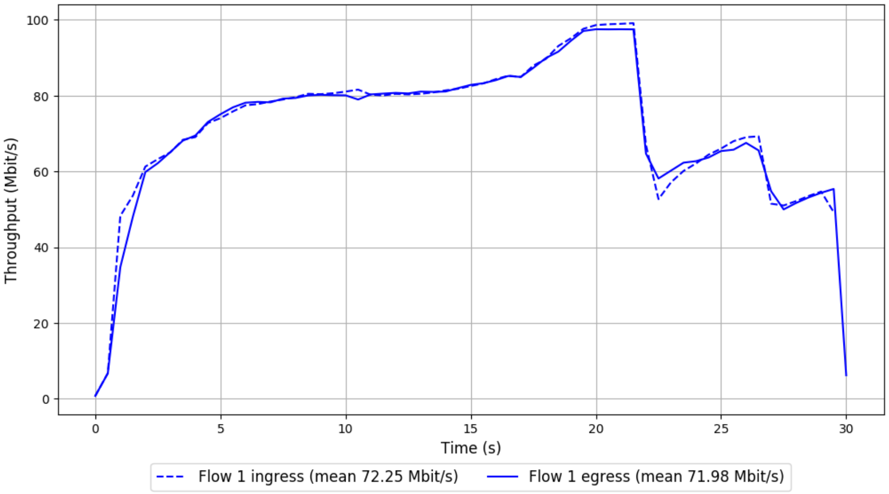
Run 3: Report of TCP Cubic — Data Link

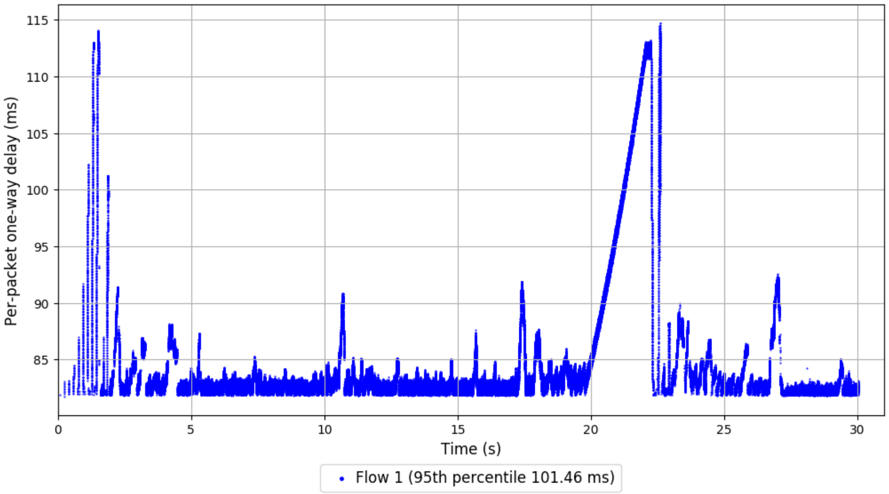




```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-20 02:05:43
End at: 2018-02-20 02:06:13
Local clock offset: -8.039 ms
Remote clock offset: 1.196 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.98 Mbit/s
95th percentile per-packet one-way delay: 101.462 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 71.98 Mbit/s
95th percentile per-packet one-way delay: 101.462 ms
Loss rate: 0.37%
```

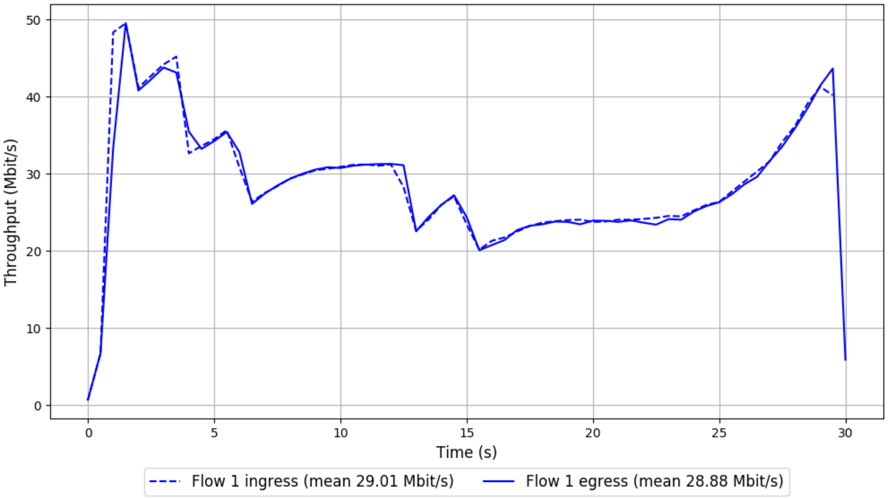
Run 4: Report of TCP Cubic — Data Link

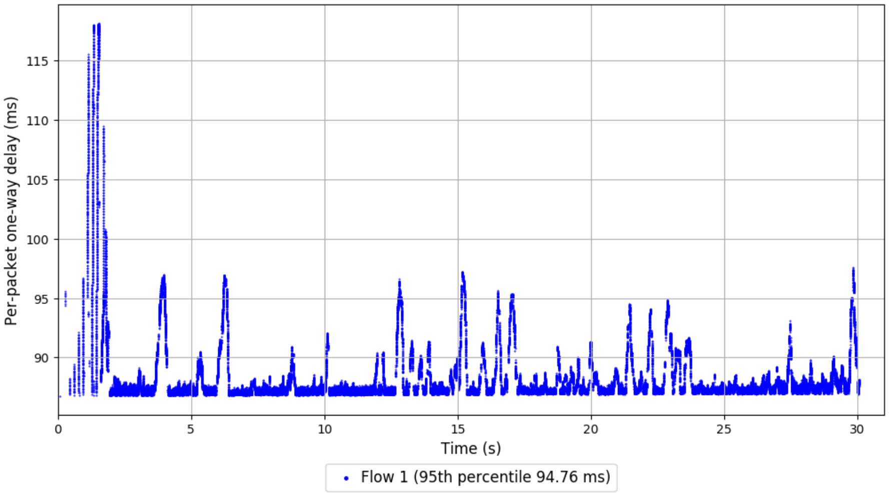




```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-20 02:27:51
End at: 2018-02-20 02:28:21
Local clock offset: -7.358 ms
Remote clock offset: 6.527 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 94.764 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 94.764 ms
Loss rate: 0.46%
```

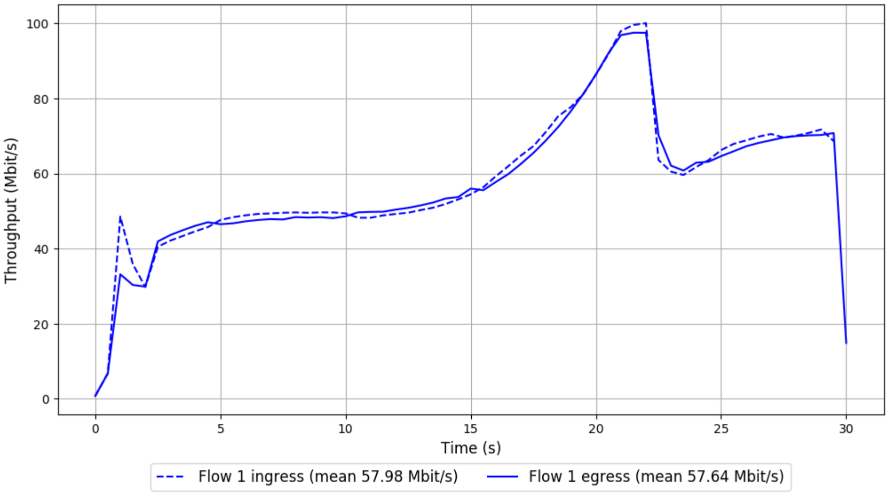
Run 5: Report of TCP Cubic — Data Link

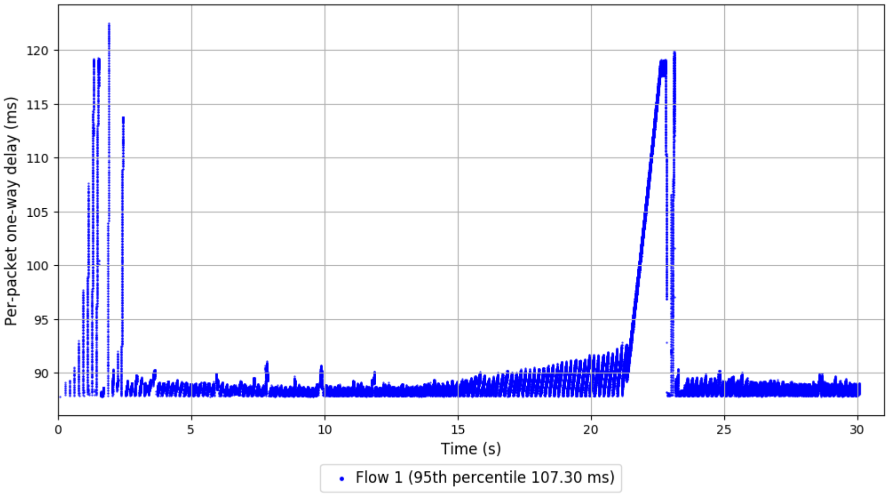




```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-20 02:49:50
End at: 2018-02-20 02:50:20
Local clock offset: -3.604 ms
Remote clock offset: 7.997 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.64 Mbit/s
95th percentile per-packet one-way delay: 107.300 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 57.64 Mbit/s
95th percentile per-packet one-way delay: 107.300 ms
Loss rate: 0.58%
```

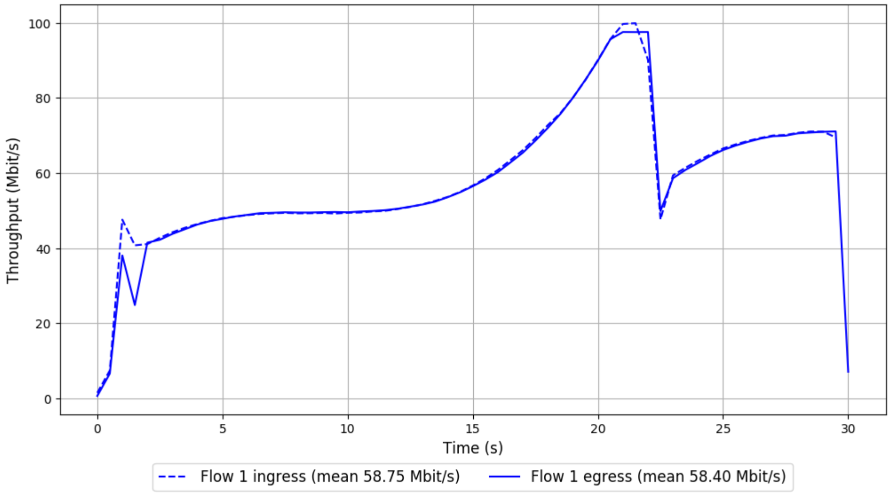
Run 6: Report of TCP Cubic — Data Link

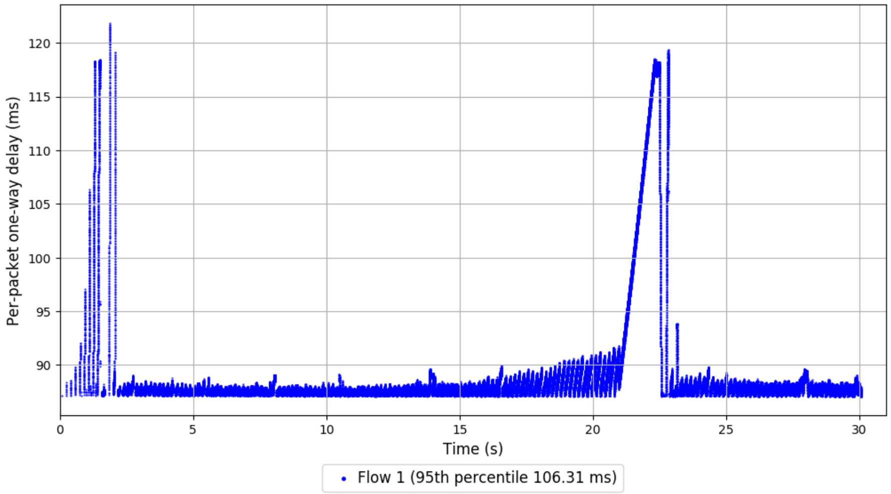




```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-20 03:11:54
End at: 2018-02-20 03:12:24
Local clock offset: -6.861 ms
Remote clock offset: 7.744 ms

# Below is generated by plot.py at 2018-02-20 04:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 106.309 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 106.309 ms
Loss rate: 0.60%
```

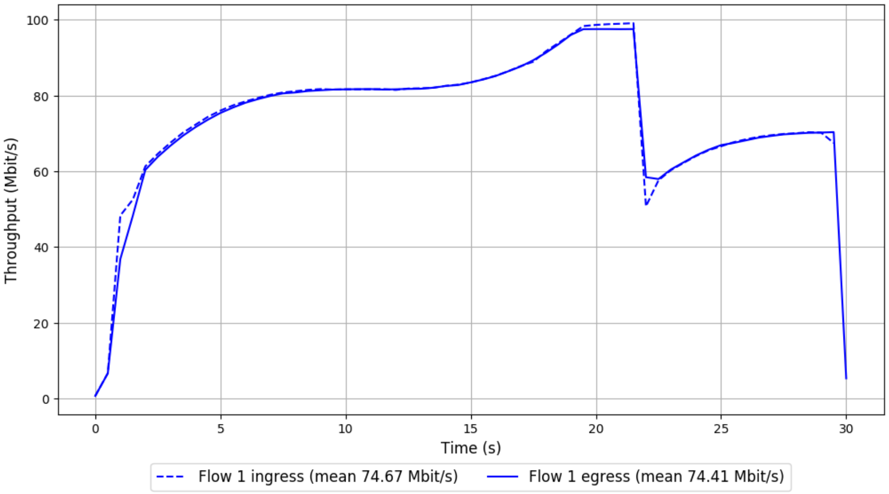
Run 7: Report of TCP Cubic — Data Link

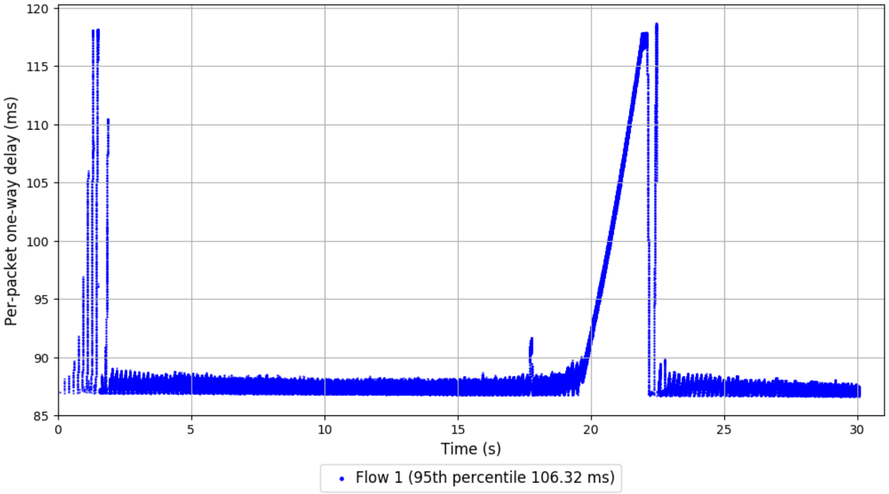




```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-20 03:33:57
End at: 2018-02-20 03:34:27
Local clock offset: -8.777 ms
Remote clock offset: 2.193 ms

# Below is generated by plot.py at 2018-02-20 04:57:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.41 Mbit/s
95th percentile per-packet one-way delay: 106.316 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 74.41 Mbit/s
95th percentile per-packet one-way delay: 106.316 ms
Loss rate: 0.34%
```

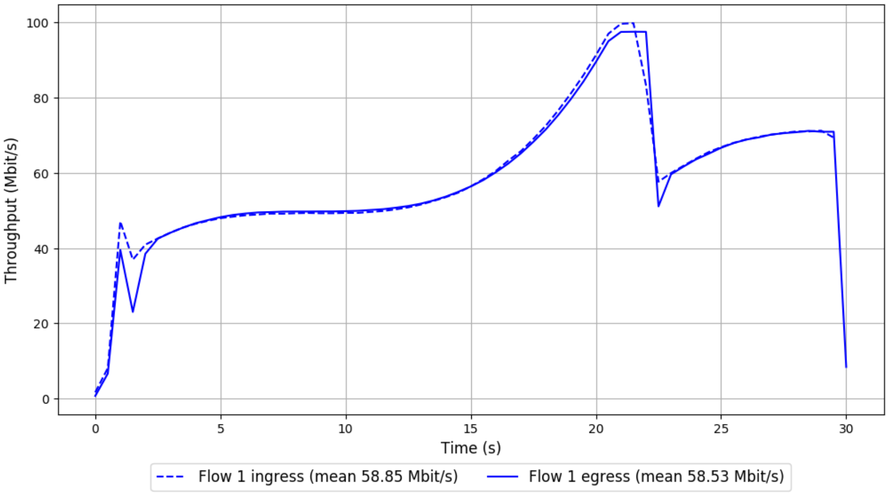
Run 8: Report of TCP Cubic — Data Link

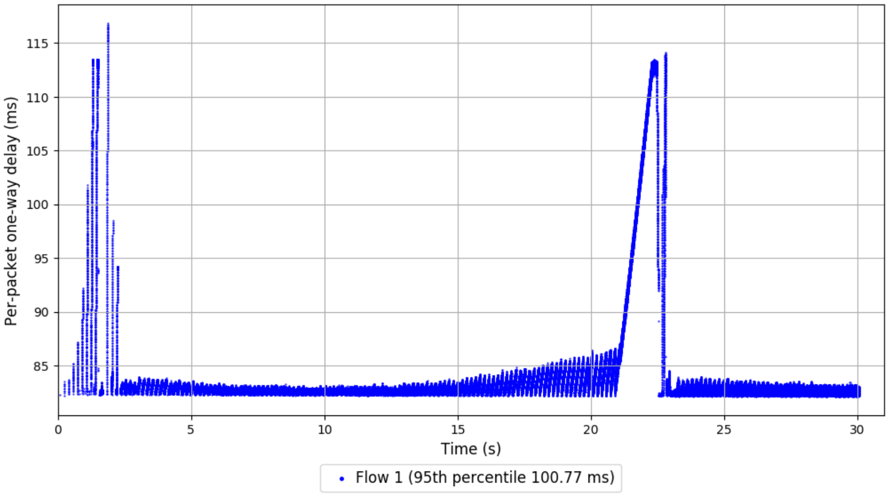




```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-20 03:56:21
End at: 2018-02-20 03:56:51
Local clock offset: -17.567 ms
Remote clock offset: -5.44 ms

# Below is generated by plot.py at 2018-02-20 04:57:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 100.771 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 100.771 ms
Loss rate: 0.53%
```

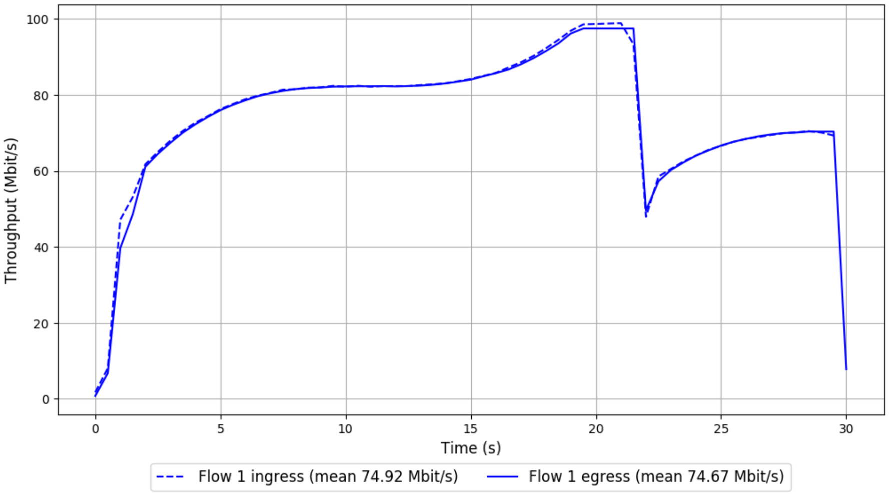
Run 9: Report of TCP Cubic — Data Link

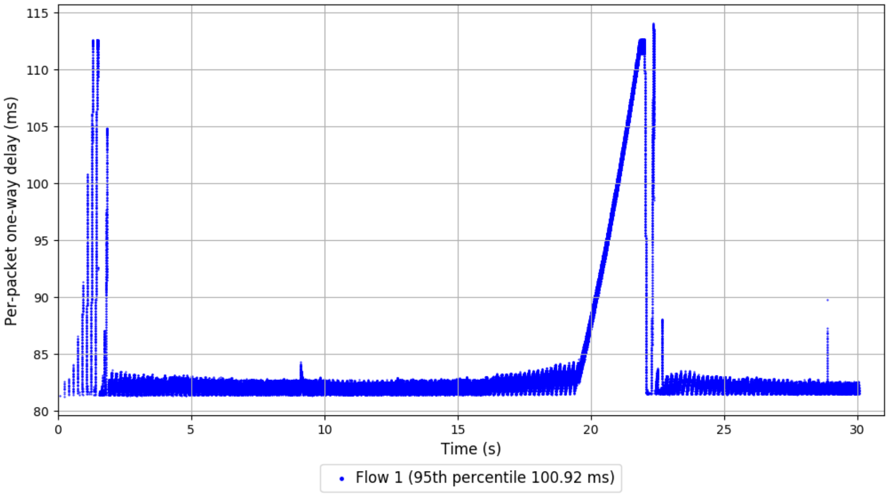




```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-20 04:18:47
End at: 2018-02-20 04:19:17
Local clock offset: -14.22 ms
Remote clock offset: -5.456 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.67 Mbit/s
95th percentile per-packet one-way delay: 100.922 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 74.67 Mbit/s
95th percentile per-packet one-way delay: 100.922 ms
Loss rate: 0.34%
```

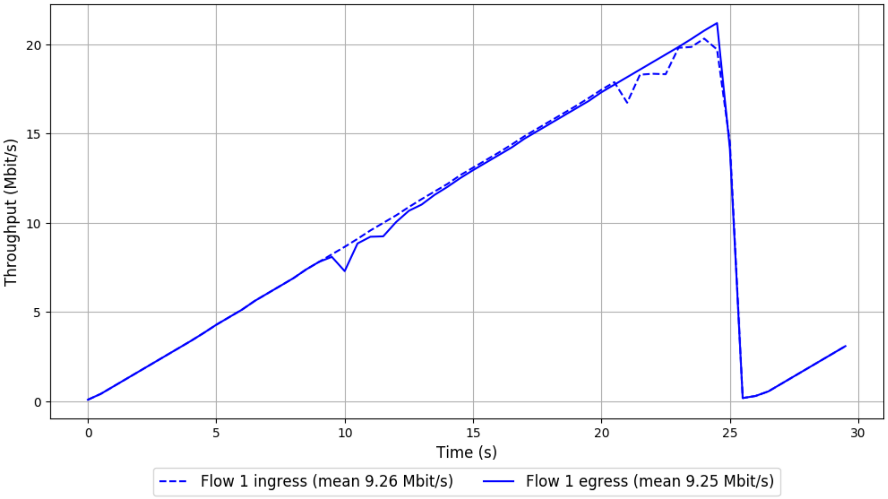
Run 10: Report of TCP Cubic — Data Link

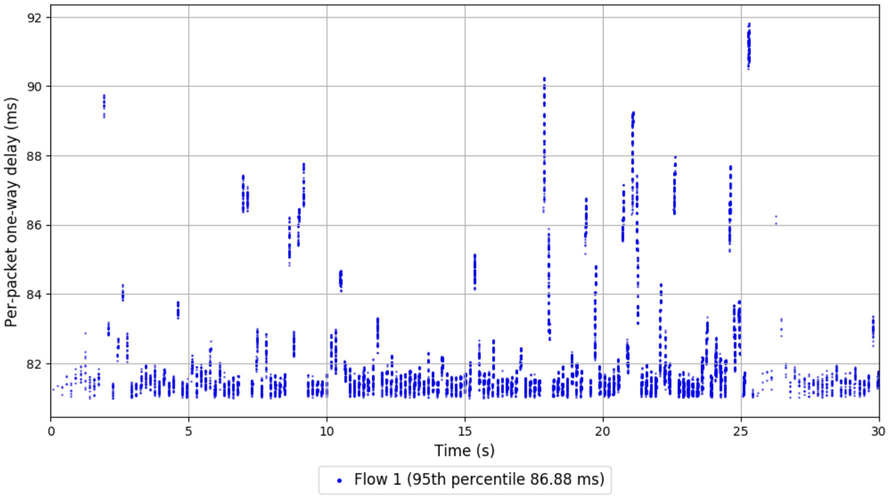




```
Run 1: Statistics of LEDBAT

Start at: 2018-02-20 01:00:29
End at: 2018-02-20 01:00:59
Local clock offset: -3.519 ms
Remote clock offset: -2.318 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 86.877 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 86.877 ms
Loss rate: 0.09%
```

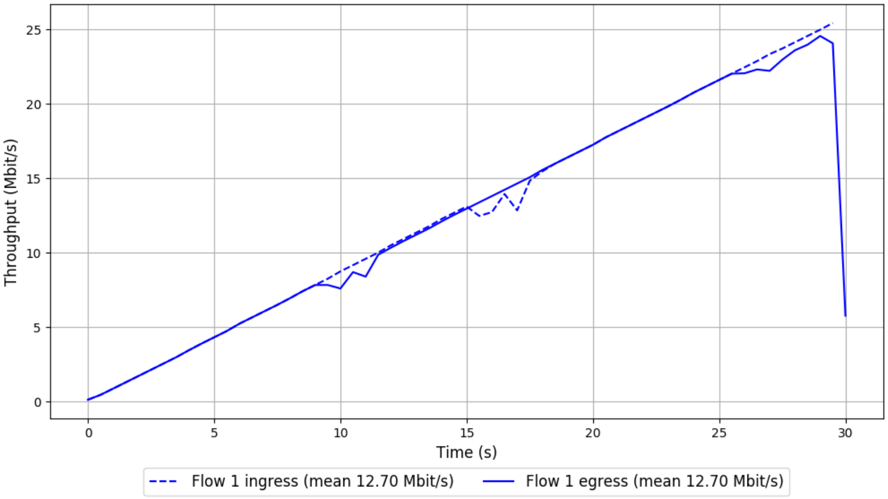
Run 1: Report of LEDBAT — Data Link

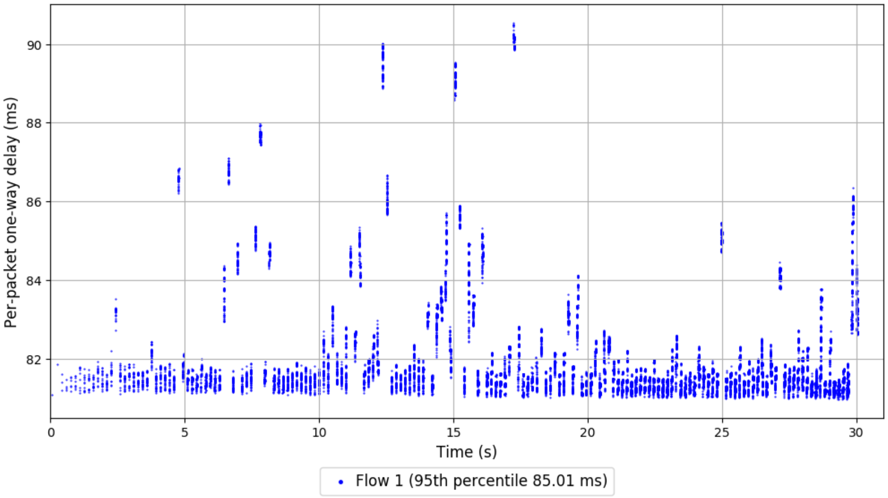




```
Run 2: Statistics of LEDBAT

Start at: 2018-02-20 01:22:35
End at: 2018-02-20 01:23:05
Local clock offset: -5.125 ms
Remote clock offset: -0.901 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 85.008 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 85.008 ms
Loss rate: 0.00%
```

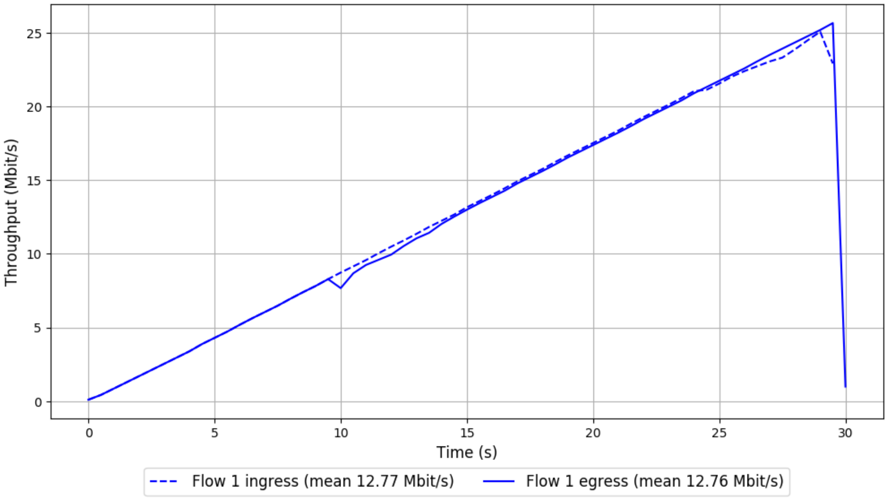
Run 2: Report of LEDBAT — Data Link

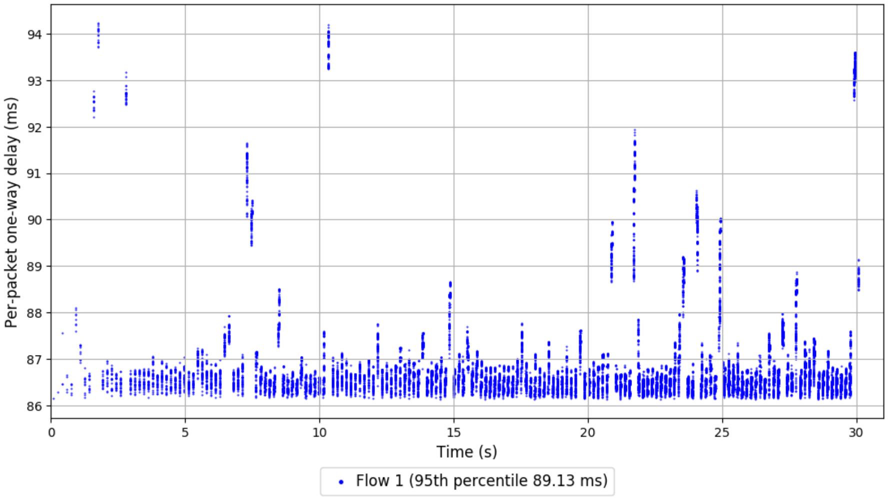




```
Run 3: Statistics of LEDBAT

Start at: 2018-02-20 01:44:51
End at: 2018-02-20 01:45:21
Local clock offset: -8.043 ms
Remote clock offset: 4.736 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.76 Mbit/s
95th percentile per-packet one-way delay: 89.126 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 12.76 Mbit/s
95th percentile per-packet one-way delay: 89.126 ms
Loss rate: 0.05%
```

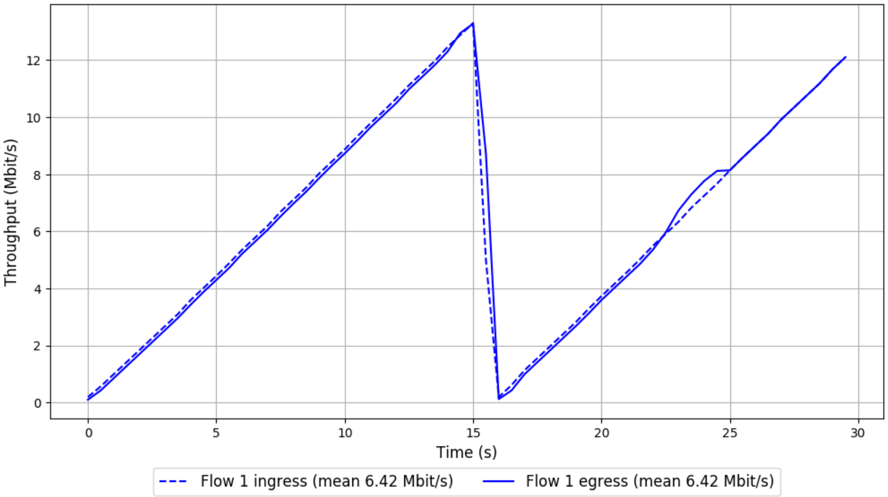
Run 3: Report of LEDBAT — Data Link

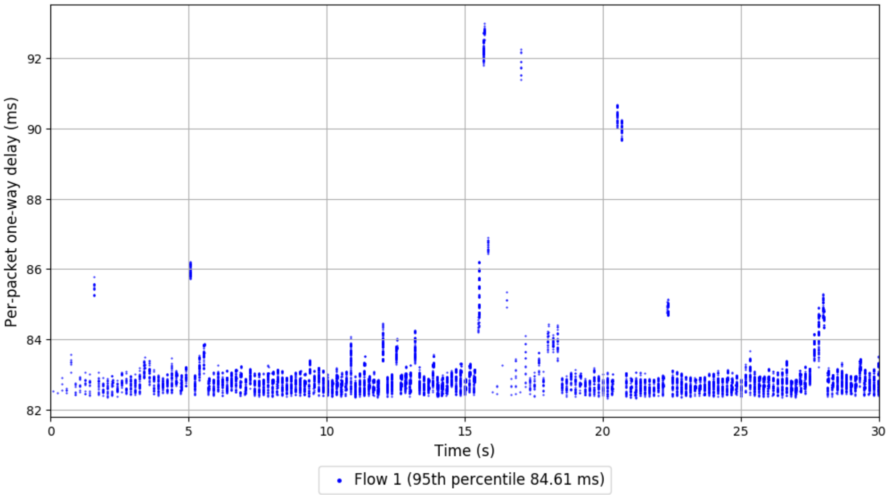




```
Run 4: Statistics of LEDBAT

Start at: 2018-02-20 02:06:57
End at: 2018-02-20 02:07:27
Local clock offset: -8.062 ms
Remote clock offset: 1.19 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 84.606 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 84.606 ms
Loss rate: 0.10%
```

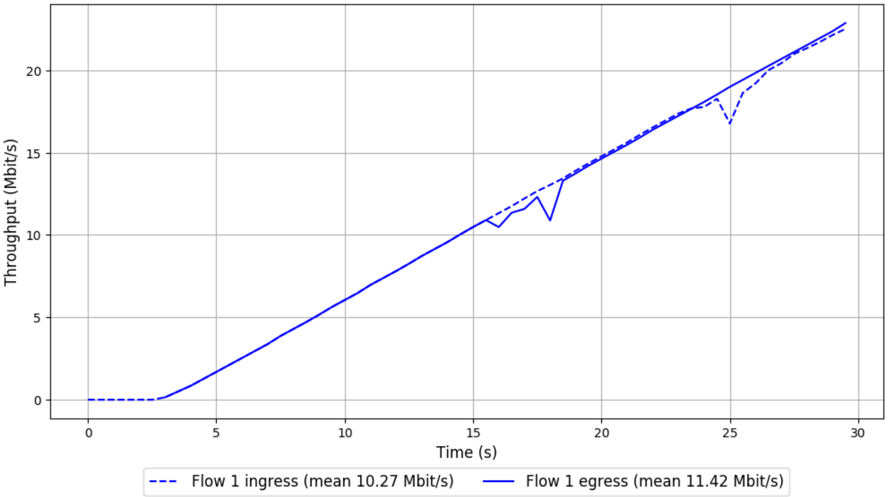
Run 4: Report of LEDBAT — Data Link

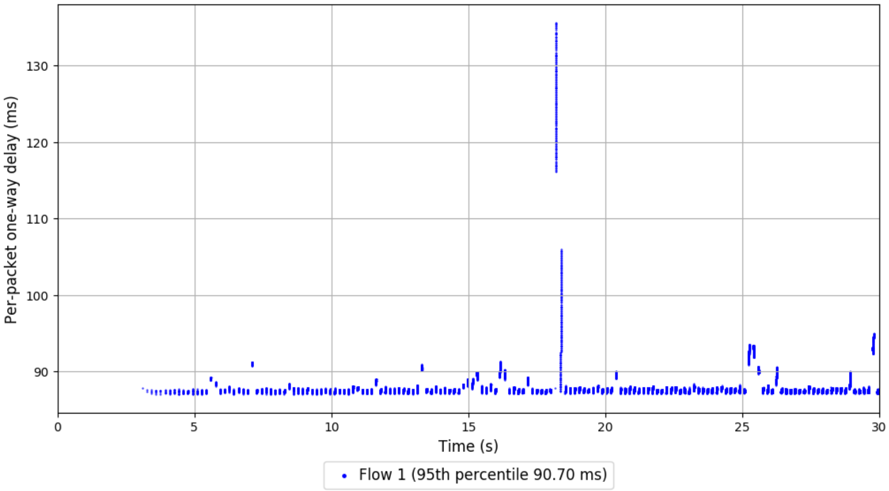




```
Run 5: Statistics of LEDBAT

Start at: 2018-02-20 02:29:02
End at: 2018-02-20 02:29:32
Local clock offset: -6.86 ms
Remote clock offset: 6.567 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 90.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 90.705 ms
Loss rate: 0.00%
```

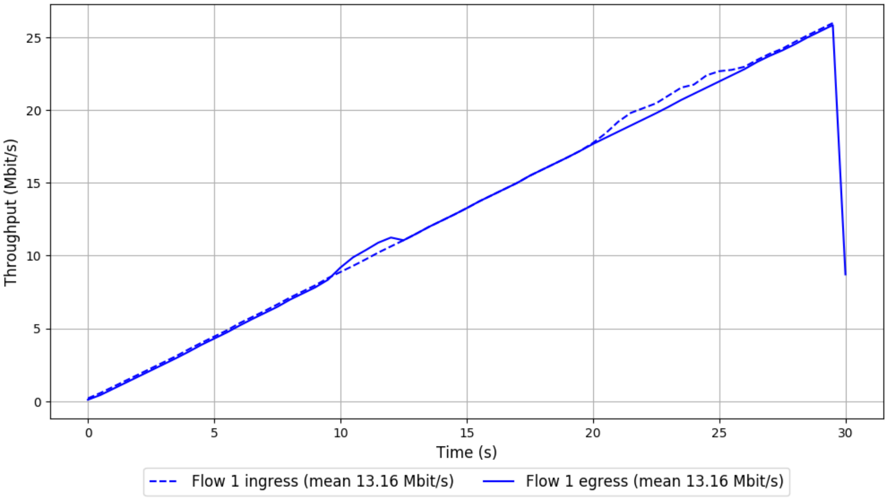
Run 5: Report of LEDBAT — Data Link

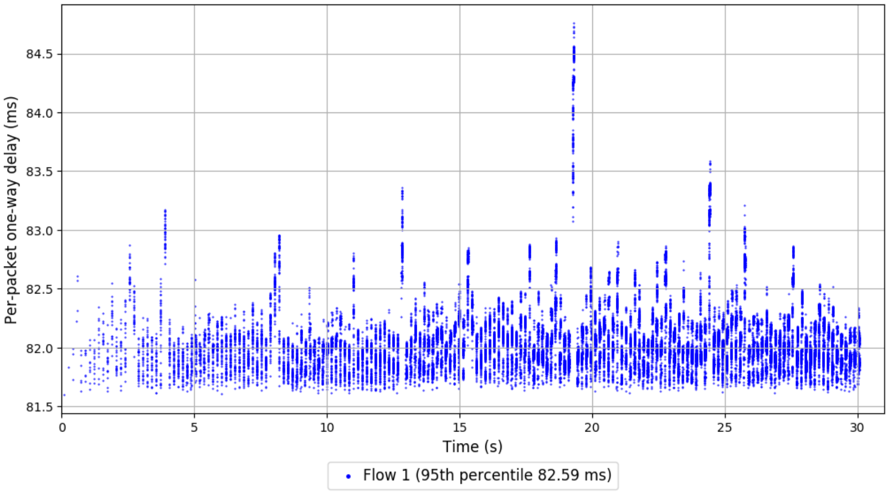




```
Run 6: Statistics of LEDBAT

Start at: 2018-02-20 02:51:03
End at: 2018-02-20 02:51:33
Local clock offset: -3.418 ms
Remote clock offset: 2.335 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 82.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 82.591 ms
Loss rate: 0.00%
```

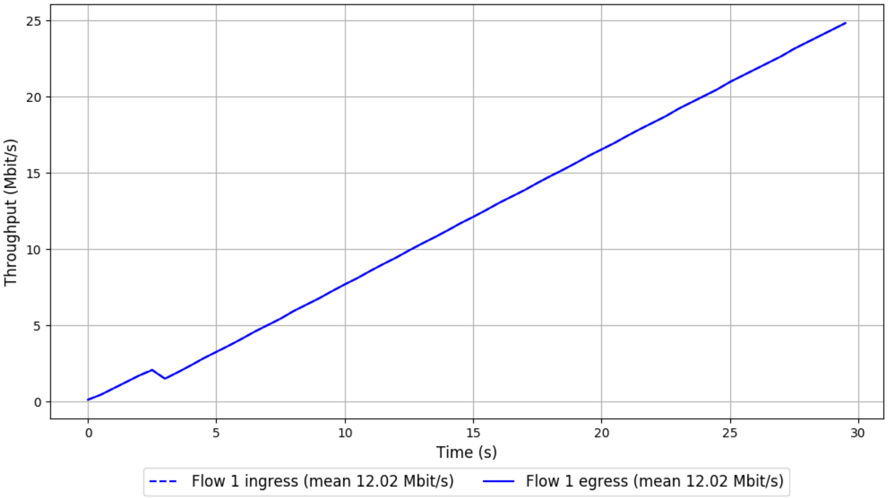
Run 6: Report of LEDBAT — Data Link

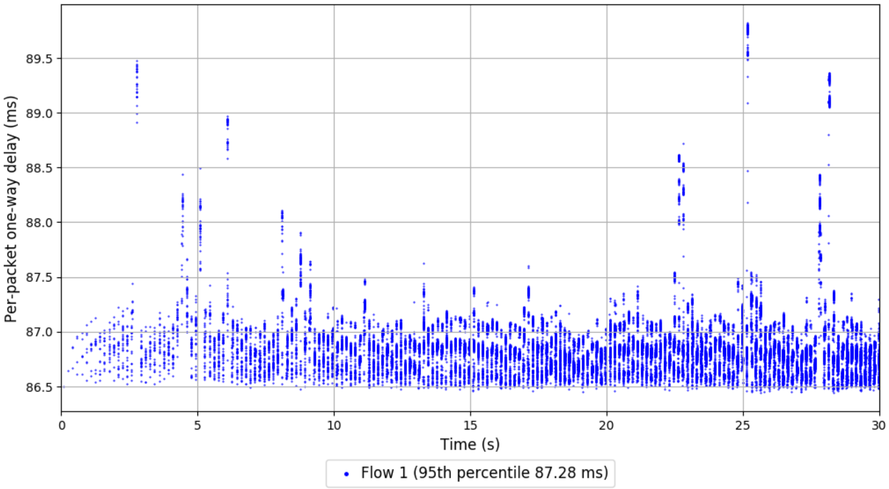




```
Run 7: Statistics of LEDBAT

Start at: 2018-02-20 03:13:07
End at: 2018-02-20 03:13:37
Local clock offset: -7.041 ms
Remote clock offset: 7.687 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 87.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 87.285 ms
Loss rate: 0.00%
```

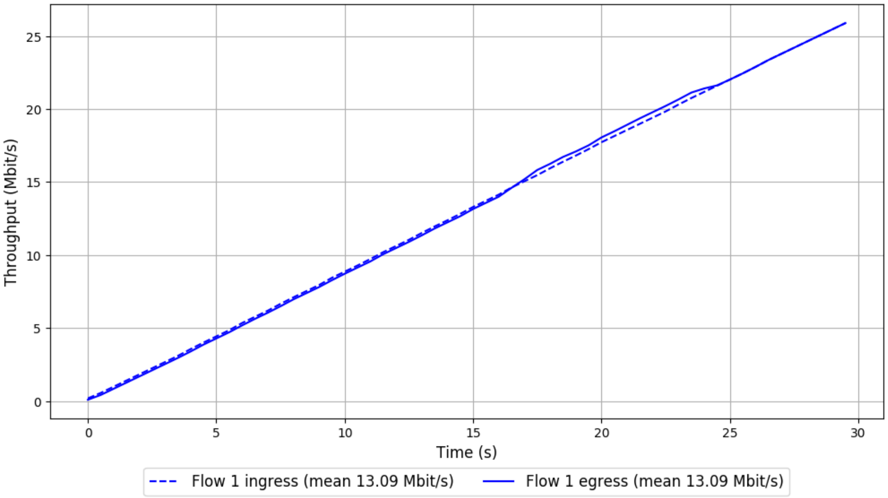
Run 7: Report of LEDBAT — Data Link

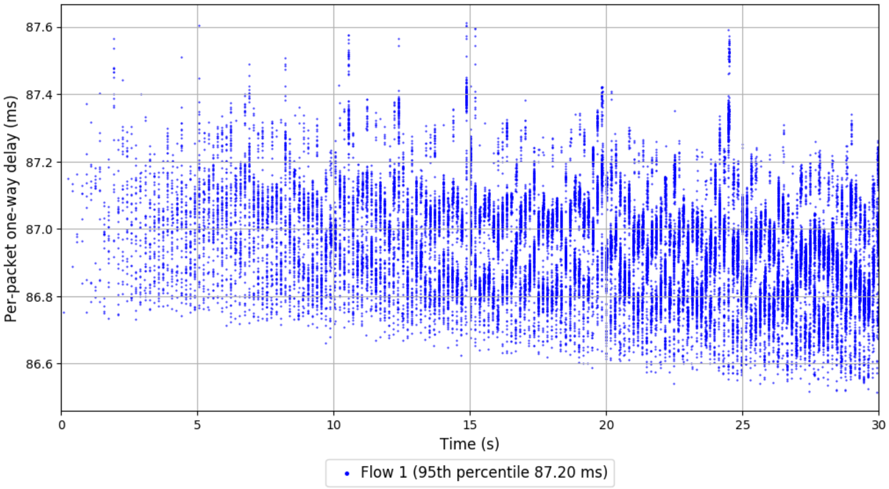




```
Run 8: Statistics of LEDBAT

Start at: 2018-02-20 03:35:10
End at: 2018-02-20 03:35:40
Local clock offset: -9.853 ms
Remote clock offset: 1.128 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 87.203 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 87.203 ms
Loss rate: 0.00%
```

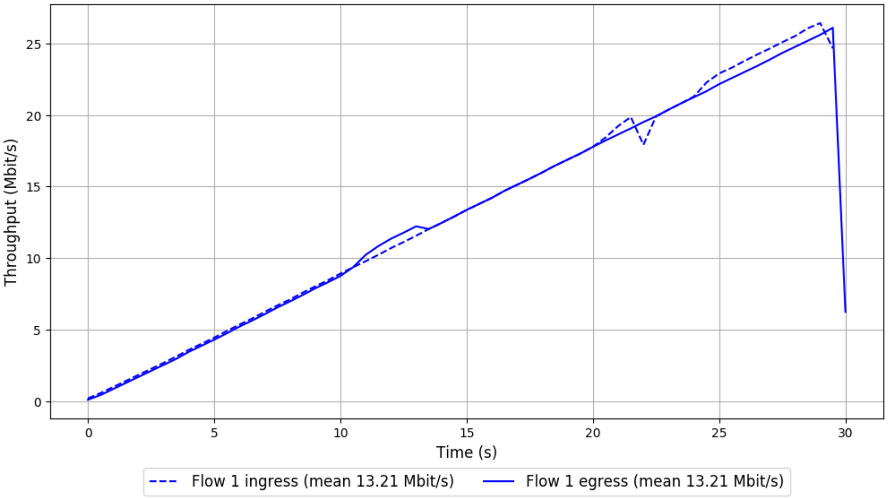
Run 8: Report of LEDBAT — Data Link

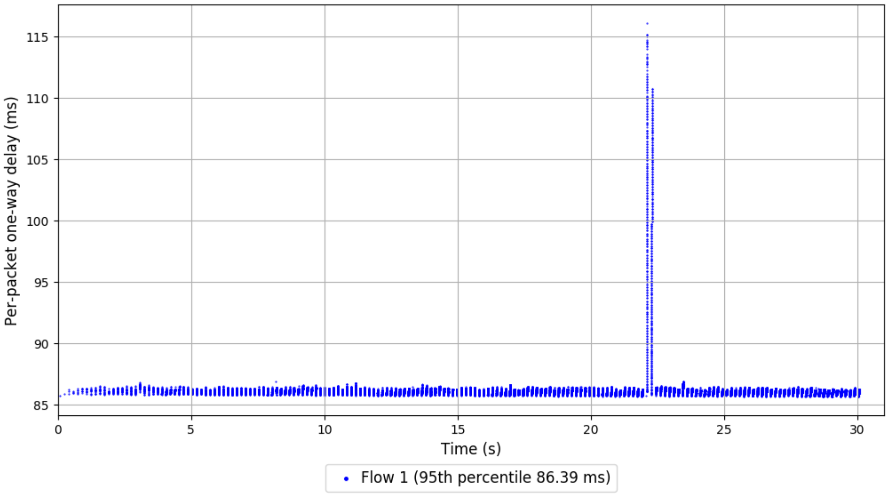




```
Run 9: Statistics of LEDBAT

Start at: 2018-02-20 03:57:33
End at: 2018-02-20 03:58:03
Local clock offset: -17.783 ms
Remote clock offset: -1.213 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 86.392 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 86.392 ms
Loss rate: 0.00%
```

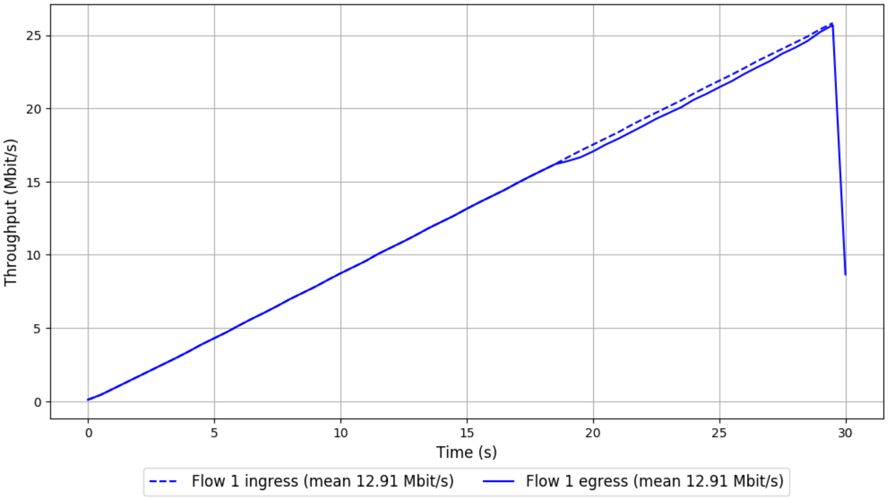
Run 9: Report of LEDBAT — Data Link

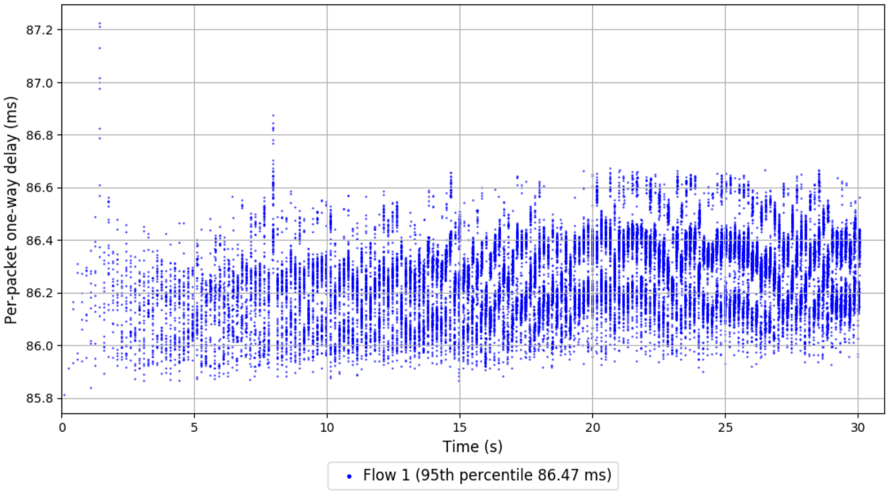




```
Run 10: Statistics of LEDBAT

Start at: 2018-02-20 04:20:00
End at: 2018-02-20 04:20:30
Local clock offset: -13.951 ms
Remote clock offset: -0.743 ms

# Below is generated by plot.py at 2018-02-20 04:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 86.475 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 86.475 ms
Loss rate: 0.00%
```

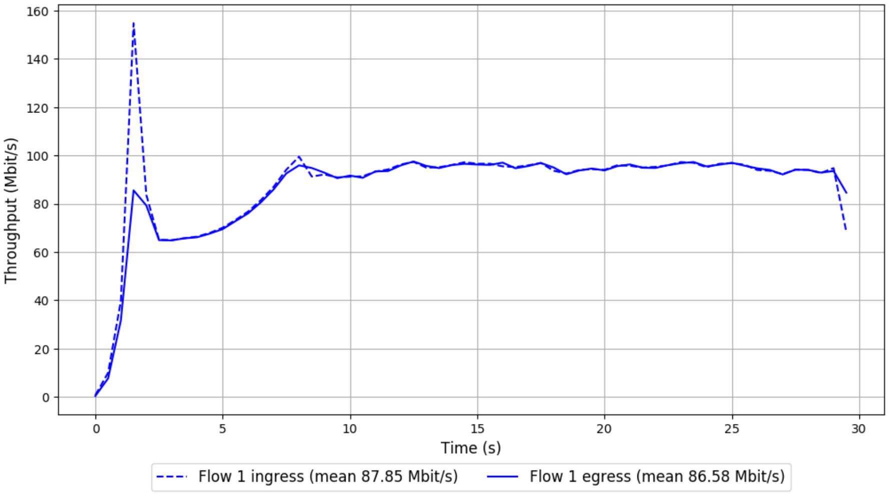
Run 10: Report of LEDBAT — Data Link

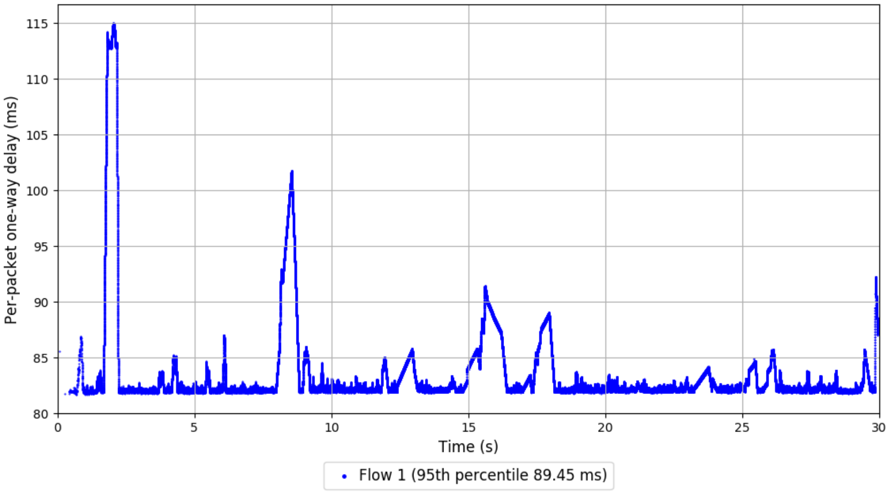




```
Run 1: Statistics of PCC

Start at: 2018-02-20 01:02:50
End at: 2018-02-20 01:03:20
Local clock offset: -3.359 ms
Remote clock offset: -1.41 ms

# Below is generated by plot.py at 2018-02-20 04:58:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 89.453 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 89.453 ms
Loss rate: 1.43%
```

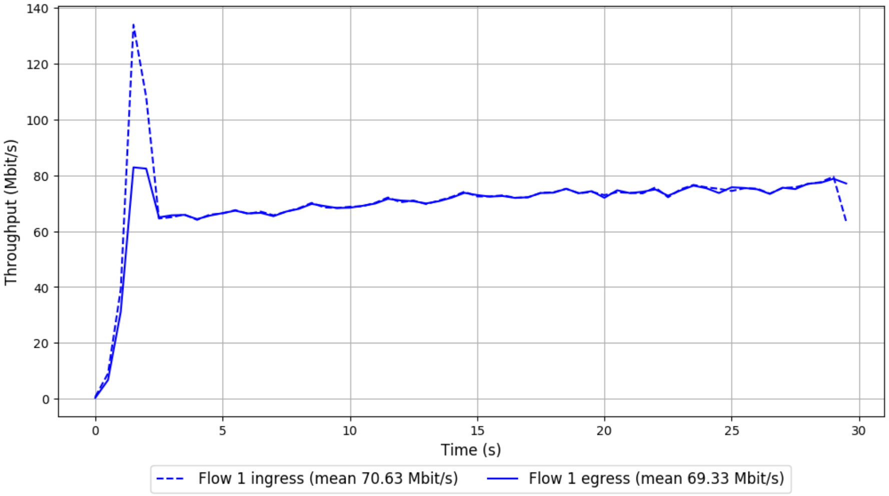
Run 1: Report of PCC — Data Link

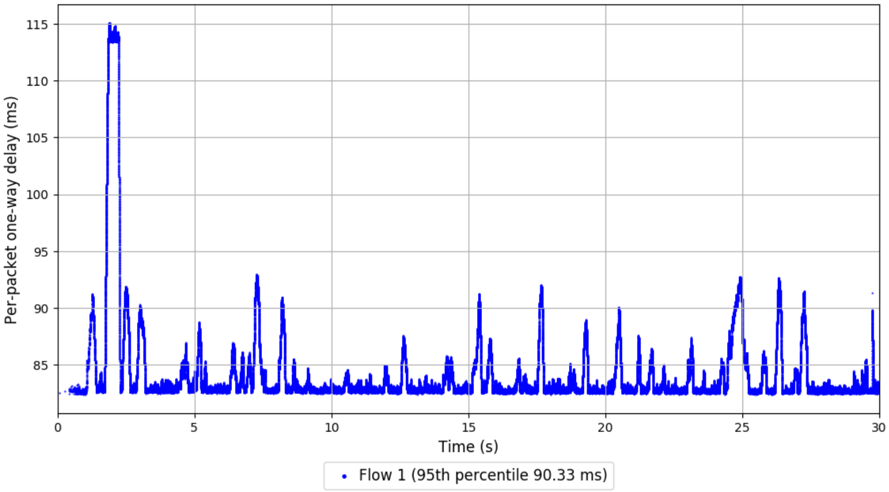




```
Run 2: Statistics of PCC

Start at: 2018-02-20 01:24:56
End at: 2018-02-20 01:25:26
Local clock offset: -5.727 ms
Remote clock offset: 0.102 ms

# Below is generated by plot.py at 2018-02-20 04:58:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.33 Mbit/s
95th percentile per-packet one-way delay: 90.325 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 69.33 Mbit/s
95th percentile per-packet one-way delay: 90.325 ms
Loss rate: 1.83%
```

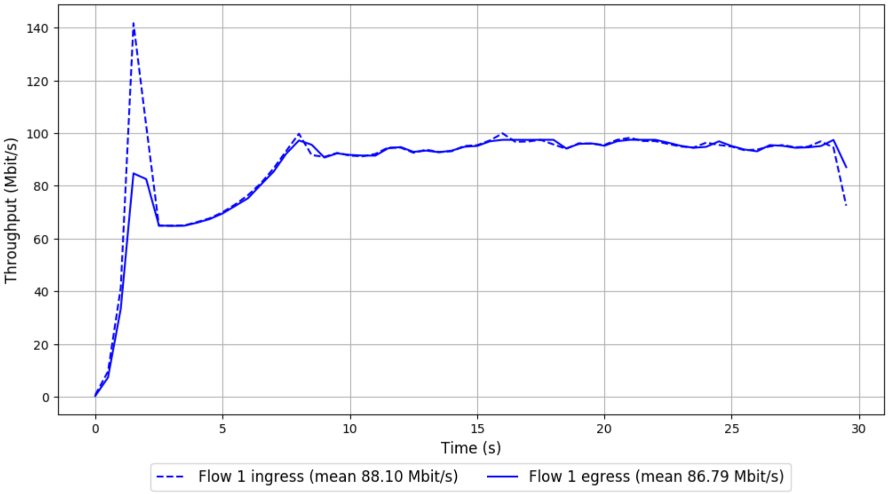
Run 2: Report of PCC — Data Link

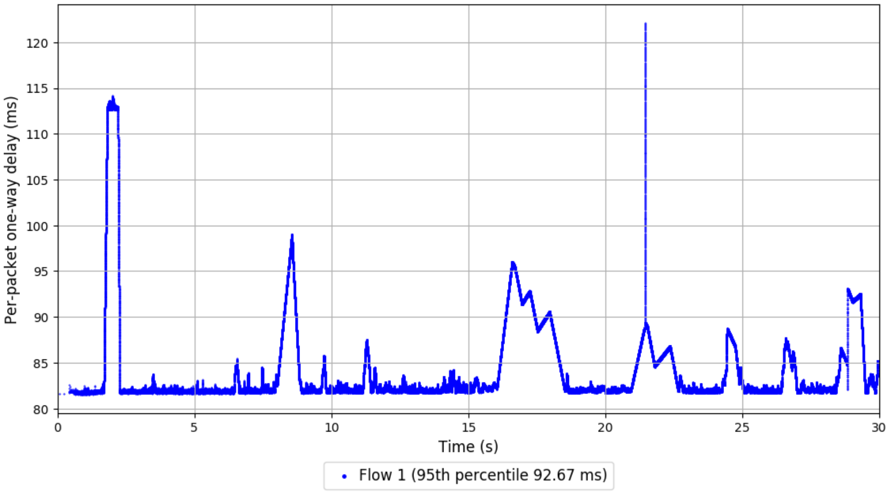




```
Run 3: Statistics of PCC

Start at: 2018-02-20 01:47:11
End at: 2018-02-20 01:47:41
Local clock offset: -8.171 ms
Remote clock offset: -0.198 ms

# Below is generated by plot.py at 2018-02-20 04:58:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.79 Mbit/s
95th percentile per-packet one-way delay: 92.673 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 86.79 Mbit/s
95th percentile per-packet one-way delay: 92.673 ms
Loss rate: 1.48%
```

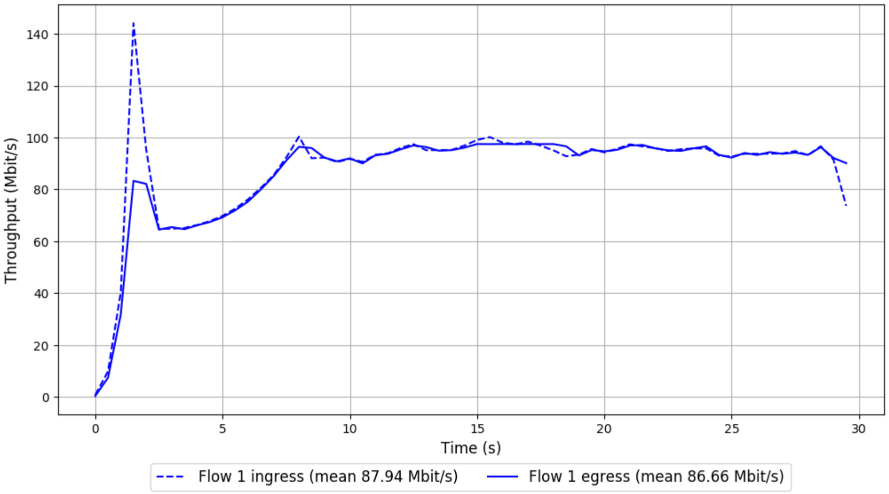
Run 3: Report of PCC — Data Link

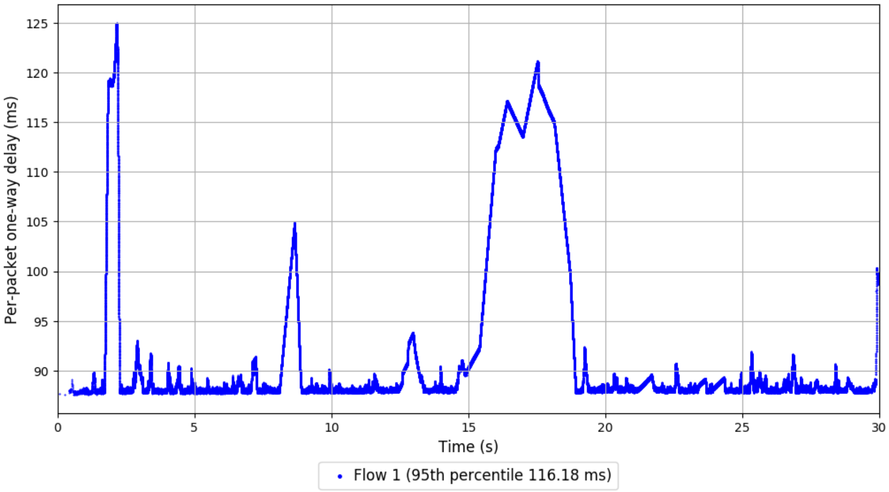




```
Run 4: Statistics of PCC

Start at: 2018-02-20 02:09:22
End at: 2018-02-20 02:09:52
Local clock offset: -8.094 ms
Remote clock offset: 6.913 ms

# Below is generated by plot.py at 2018-02-20 04:59:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 116.184 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 116.184 ms
Loss rate: 1.42%
```

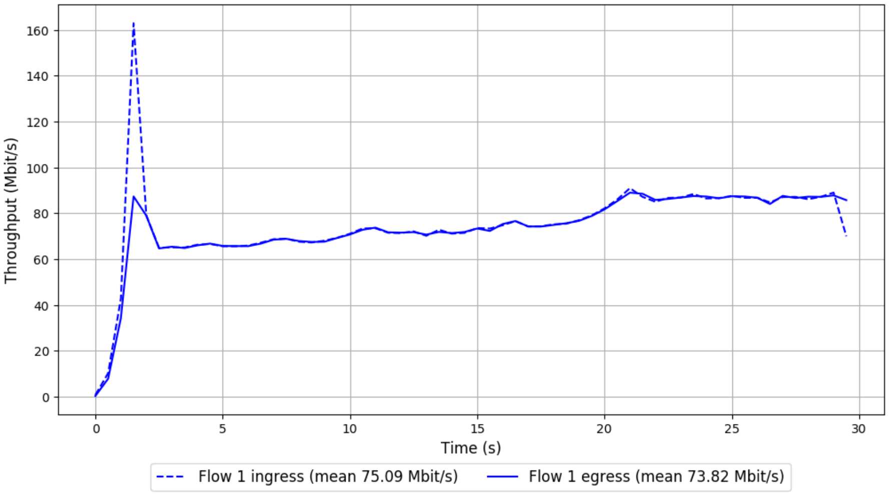
Run 4: Report of PCC — Data Link

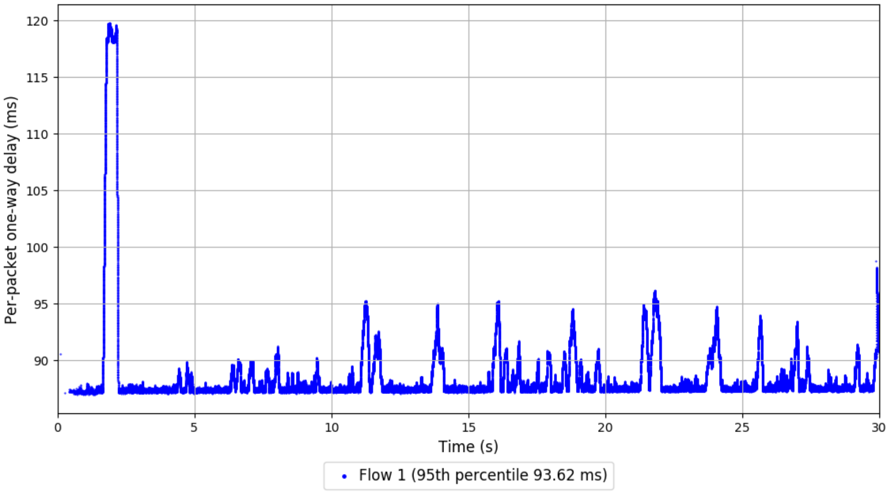




```
Run 5: Statistics of PCC

Start at: 2018-02-20 02:31:22
End at: 2018-02-20 02:31:53
Local clock offset: -6.219 ms
Remote clock offset: 6.658 ms

# Below is generated by plot.py at 2018-02-20 04:59:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.82 Mbit/s
95th percentile per-packet one-way delay: 93.618 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 73.82 Mbit/s
95th percentile per-packet one-way delay: 93.618 ms
Loss rate: 1.69%
```

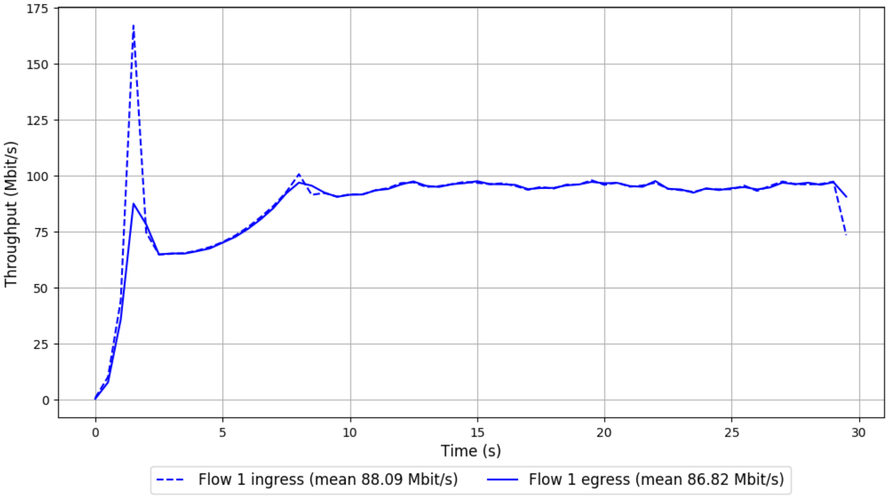
Run 5: Report of PCC — Data Link

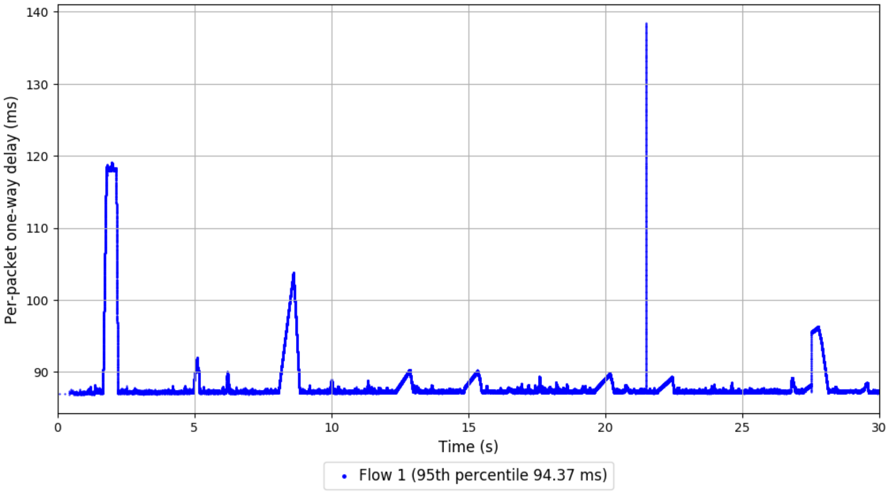




```
Run 6: Statistics of PCC

Start at: 2018-02-20 02:53:24
End at: 2018-02-20 02:53:54
Local clock offset: -3.269 ms
Remote clock offset: 7.261 ms

# Below is generated by plot.py at 2018-02-20 04:59:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 94.368 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 94.368 ms
Loss rate: 1.44%
```

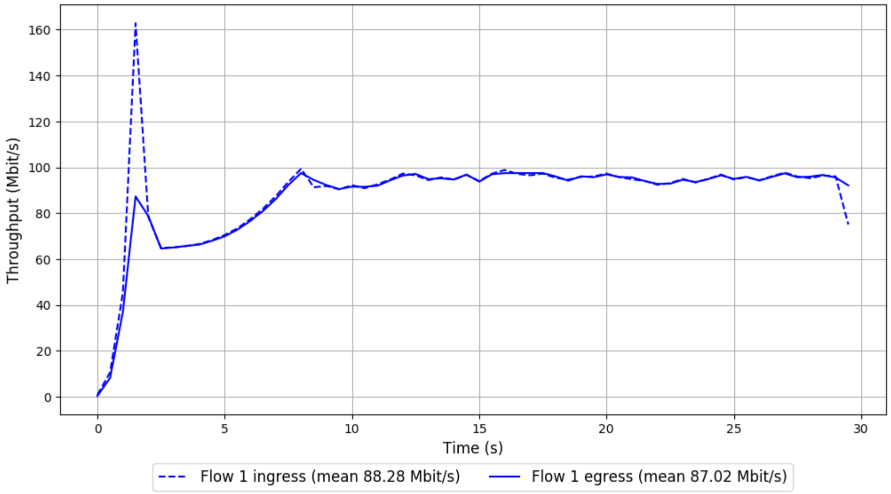
Run 6: Report of PCC — Data Link

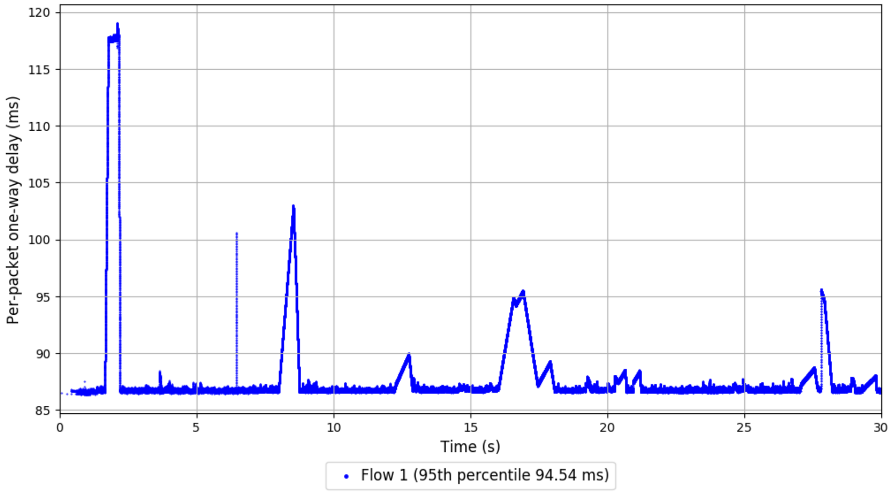




```
Run 7: Statistics of PCC

Start at: 2018-02-20 03:15:27
End at: 2018-02-20 03:15:57
Local clock offset: -7.368 ms
Remote clock offset: 7.728 ms

# Below is generated by plot.py at 2018-02-20 04:59:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 94.544 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 94.544 ms
Loss rate: 1.43%
```

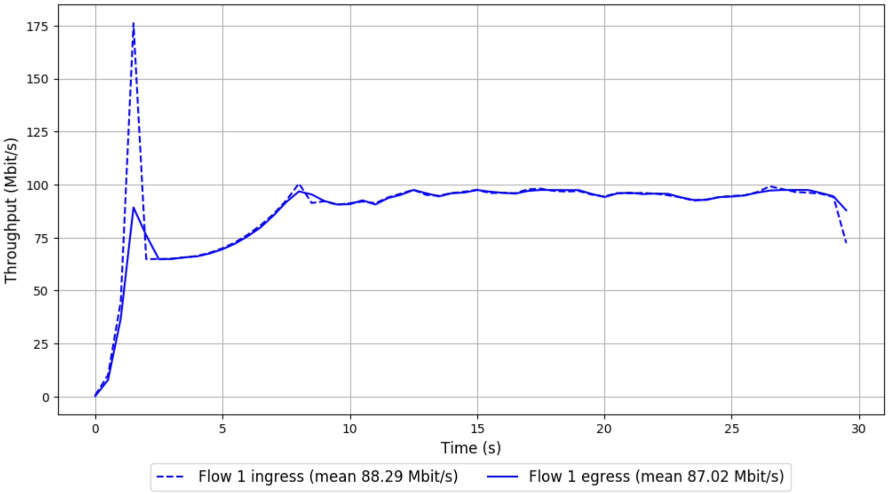
Run 7: Report of PCC — Data Link

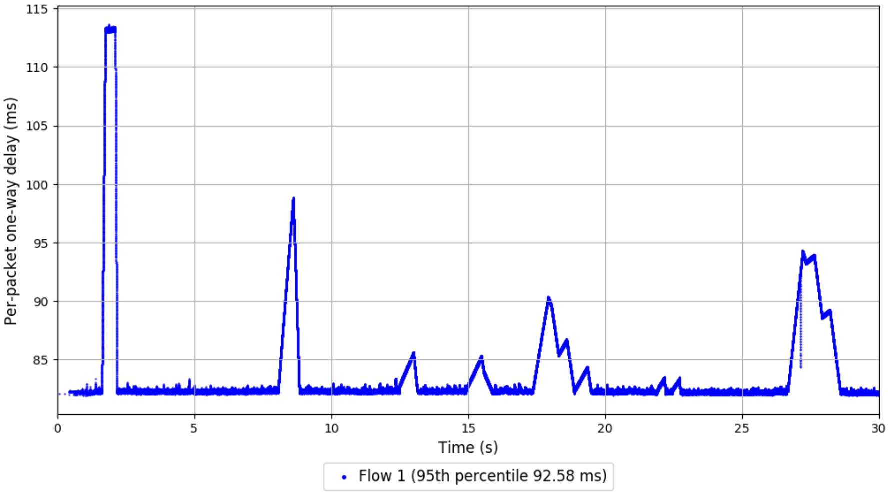




```
Run 8: Statistics of PCC

Start at: 2018-02-20 03:37:31
End at: 2018-02-20 03:38:01
Local clock offset: -11.447 ms
Remote clock offset: -4.136 ms

# Below is generated by plot.py at 2018-02-20 04:59:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 92.578 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 92.578 ms
Loss rate: 1.44%
```

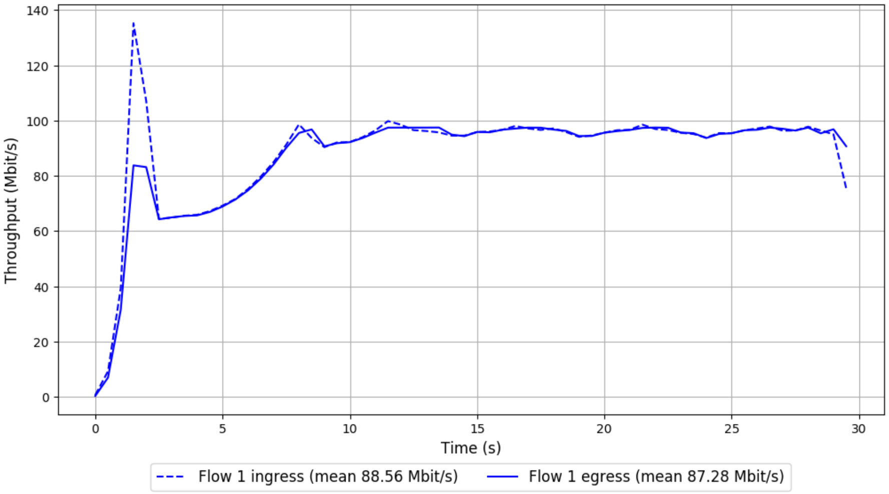
Run 8: Report of PCC — Data Link

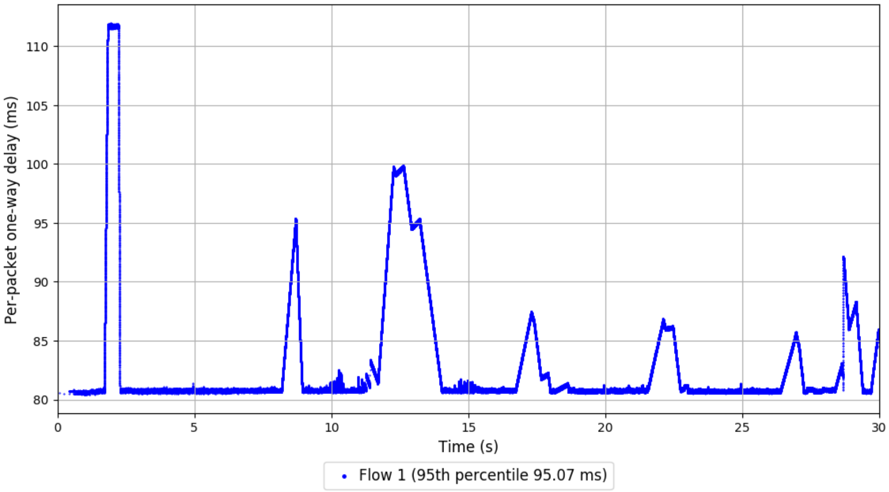




```
Run 9: Statistics of PCC

Start at: 2018-02-20 03:59:54
End at: 2018-02-20 04:00:24
Local clock offset: -18.162 ms
Remote clock offset: -5.834 ms

# Below is generated by plot.py at 2018-02-20 04:59:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.28 Mbit/s
95th percentile per-packet one-way delay: 95.066 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 87.28 Mbit/s
95th percentile per-packet one-way delay: 95.066 ms
Loss rate: 1.43%
```

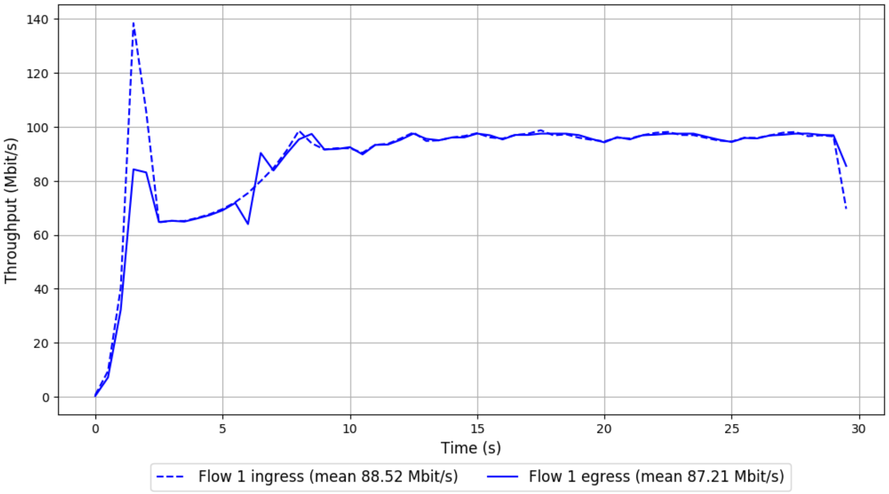
Run 9: Report of PCC — Data Link

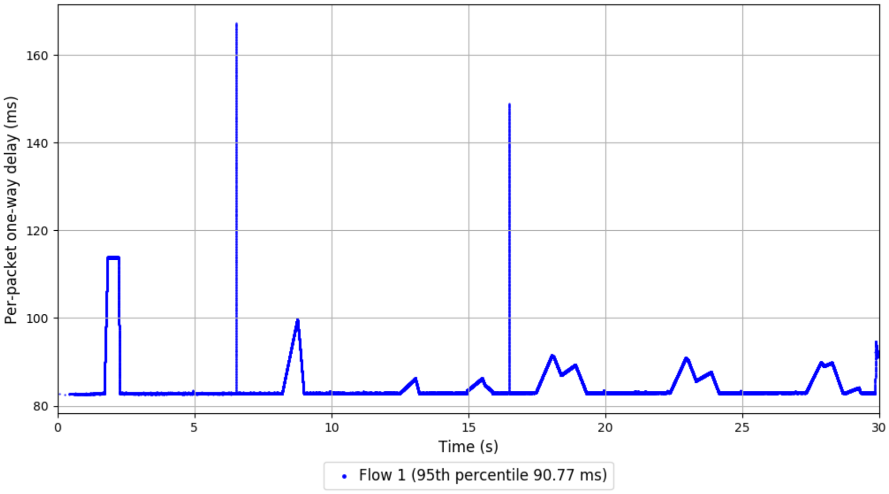




```
Run 10: Statistics of PCC

Start at: 2018-02-20 04:22:21
End at: 2018-02-20 04:22:51
Local clock offset: -13.61 ms
Remote clock offset: -4.746 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.21 Mbit/s
95th percentile per-packet one-way delay: 90.767 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 87.21 Mbit/s
95th percentile per-packet one-way delay: 90.767 ms
Loss rate: 1.45%
```

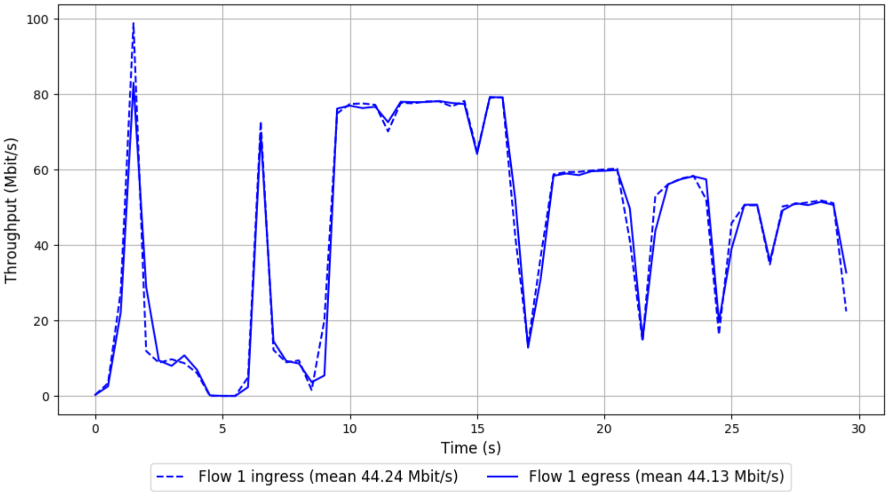
Run 10: Report of PCC — Data Link

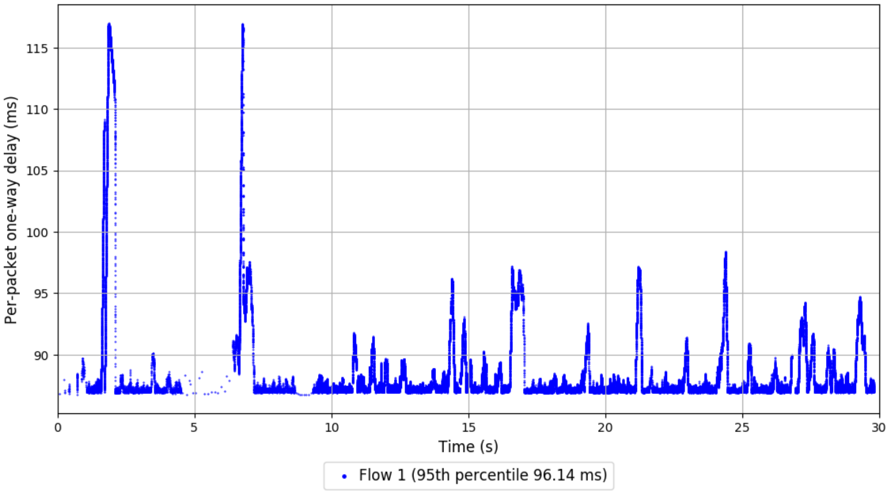




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-20 00:56:50
End at: 2018-02-20 00:57:20
Local clock offset: -3.827 ms
Remote clock offset: 3.293 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.13 Mbit/s
95th percentile per-packet one-way delay: 96.141 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 44.13 Mbit/s
95th percentile per-packet one-way delay: 96.141 ms
Loss rate: 0.25%
```

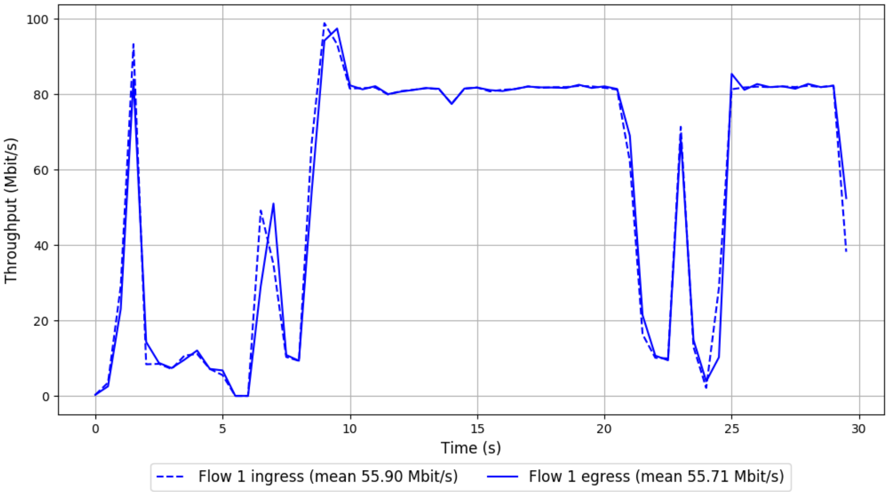
Run 1: Report of QUIC Cubic — Data Link

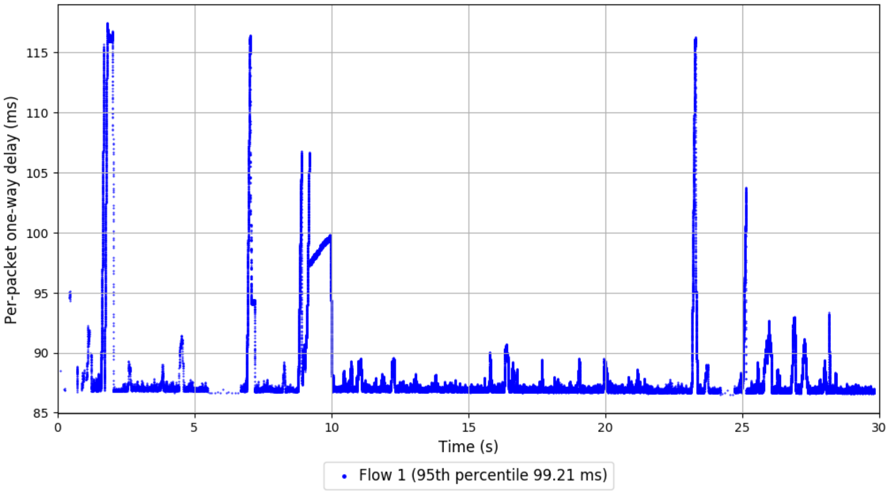




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-20 01:18:49
End at: 2018-02-20 01:19:19
Local clock offset: -3.822 ms
Remote clock offset: 4.594 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 99.206 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 99.206 ms
Loss rate: 0.36%
```

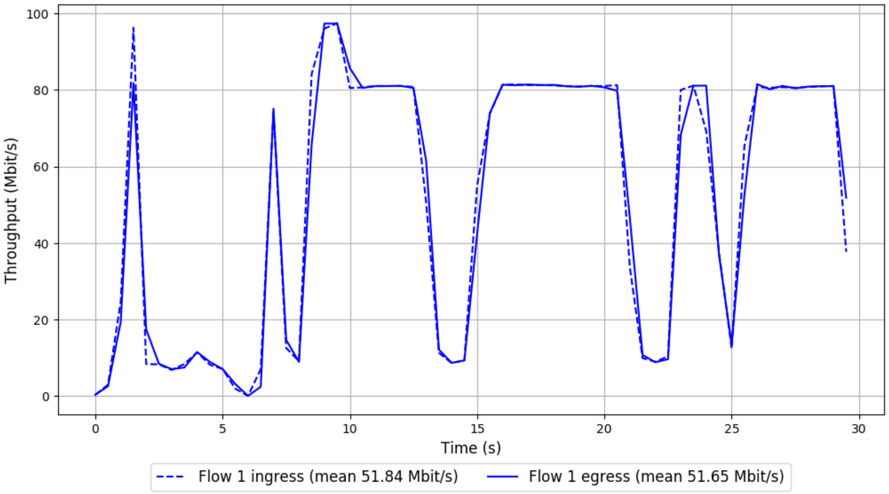
Run 2: Report of QUIC Cubic — Data Link

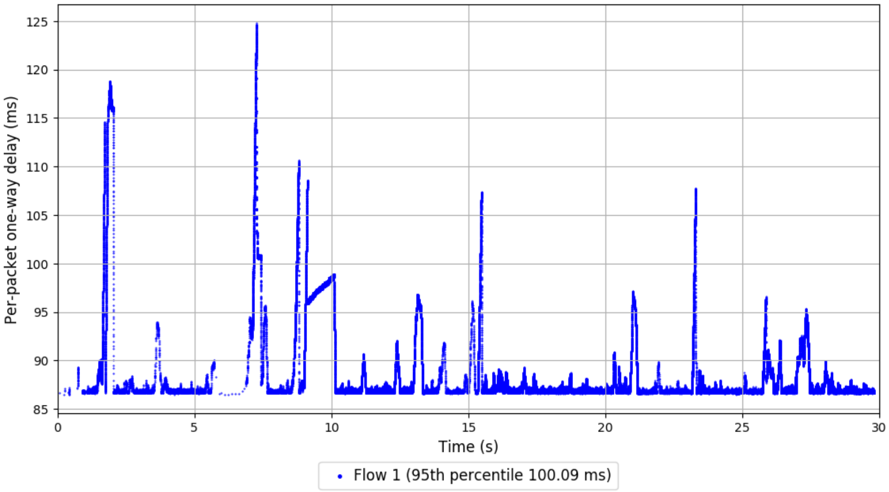




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-20 01:41:11
End at: 2018-02-20 01:41:41
Local clock offset: -7.76 ms
Remote clock offset: 5.4 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.65 Mbit/s
95th percentile per-packet one-way delay: 100.092 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 51.65 Mbit/s
95th percentile per-packet one-way delay: 100.092 ms
Loss rate: 0.37%
```

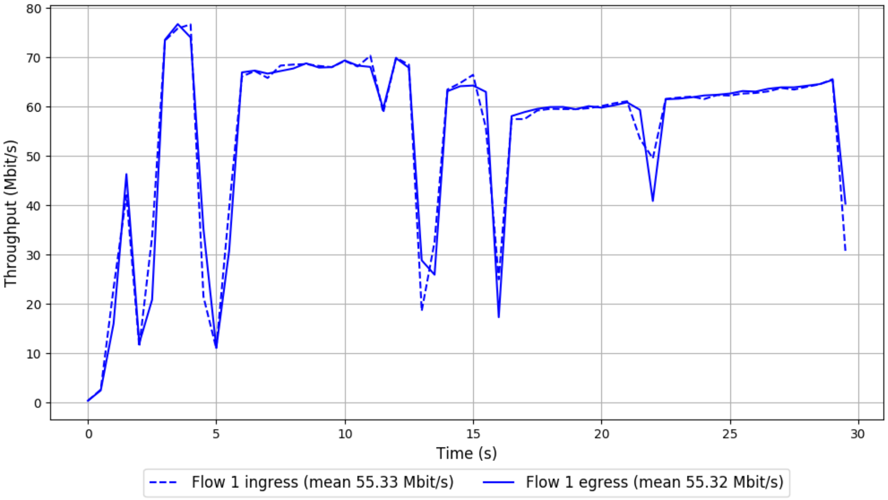
Run 3: Report of QUIC Cubic — Data Link

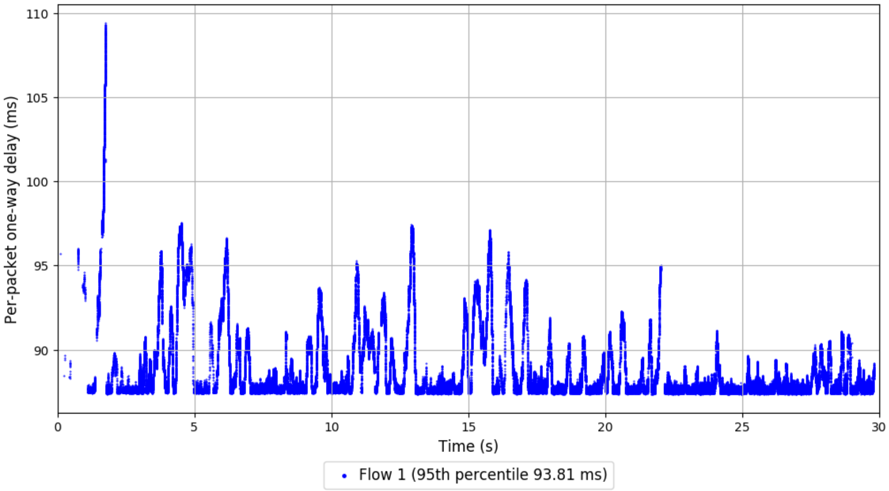




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-20 02:03:19
End at: 2018-02-20 02:03:49
Local clock offset: -8.007 ms
Remote clock offset: 5.891 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 93.808 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 93.808 ms
Loss rate: 0.04%
```

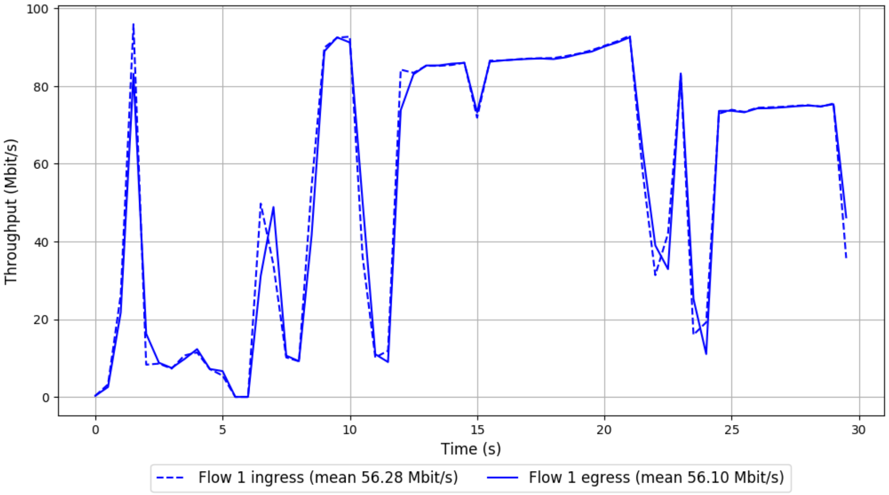
Run 4: Report of QUIC Cubic — Data Link

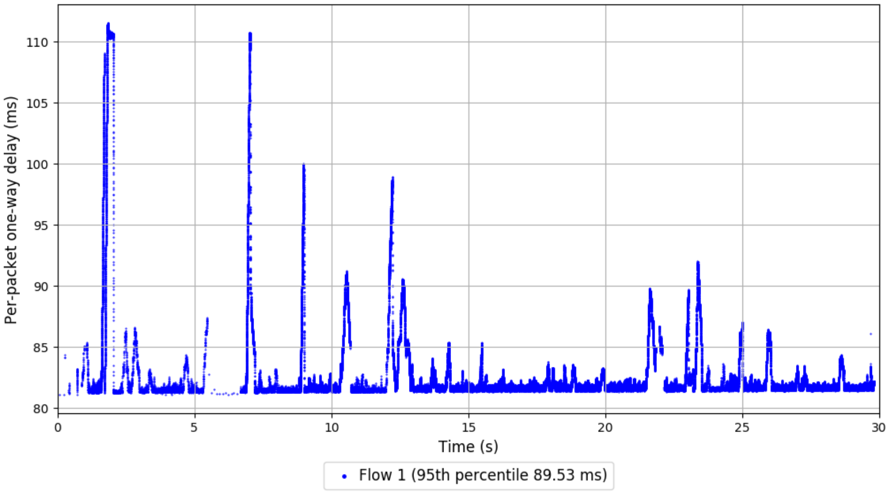




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-20 02:25:24
End at: 2018-02-20 02:25:54
Local clock offset: -8.435 ms
Remote clock offset: 0.817 ms

# Below is generated by plot.py at 2018-02-20 05:00:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 89.528 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 89.528 ms
Loss rate: 0.32%
```

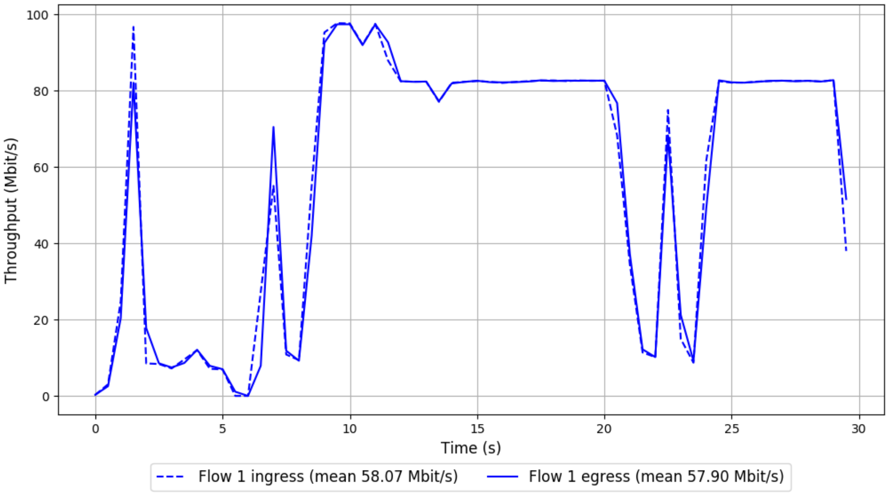
Run 5: Report of QUIC Cubic — Data Link

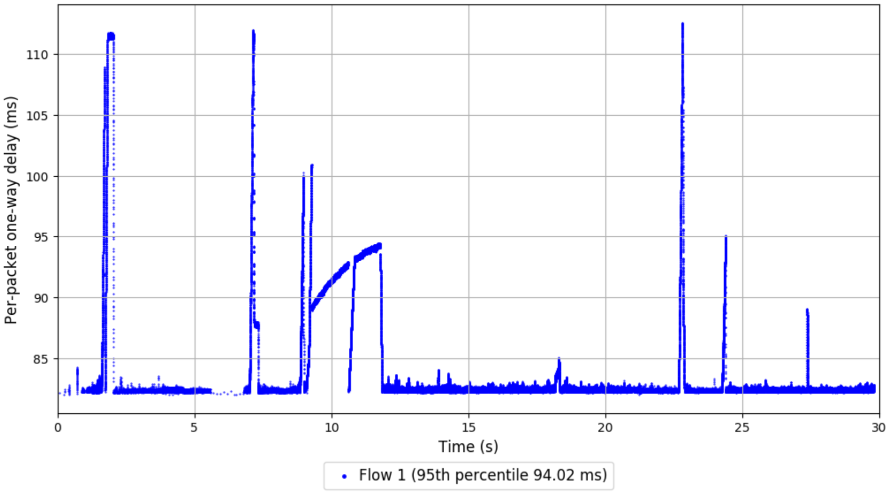




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-20 02:47:25
End at: 2018-02-20 02:47:55
Local clock offset: -3.728 ms
Remote clock offset: 2.285 ms

# Below is generated by plot.py at 2018-02-20 05:00:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.90 Mbit/s
95th percentile per-packet one-way delay: 94.018 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 57.90 Mbit/s
95th percentile per-packet one-way delay: 94.018 ms
Loss rate: 0.30%
```

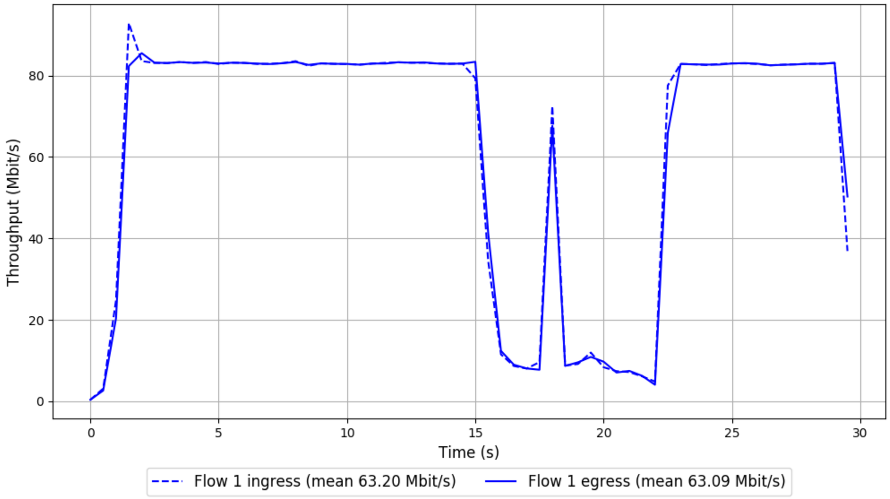
Run 6: Report of QUIC Cubic — Data Link



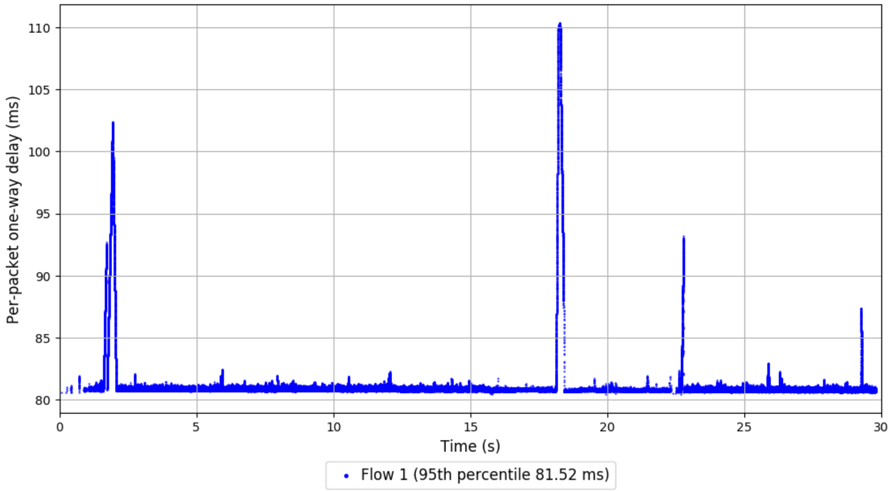


```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-20 03:09:27
End at: 2018-02-20 03:09:57
Local clock offset: -6.415 ms
Remote clock offset: 1.878 ms

# Below is generated by plot.py at 2018-02-20 05:00:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 81.518 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 81.518 ms
Loss rate: 0.17%
```

Run 7: Report of QUIC Cubic — Data Link



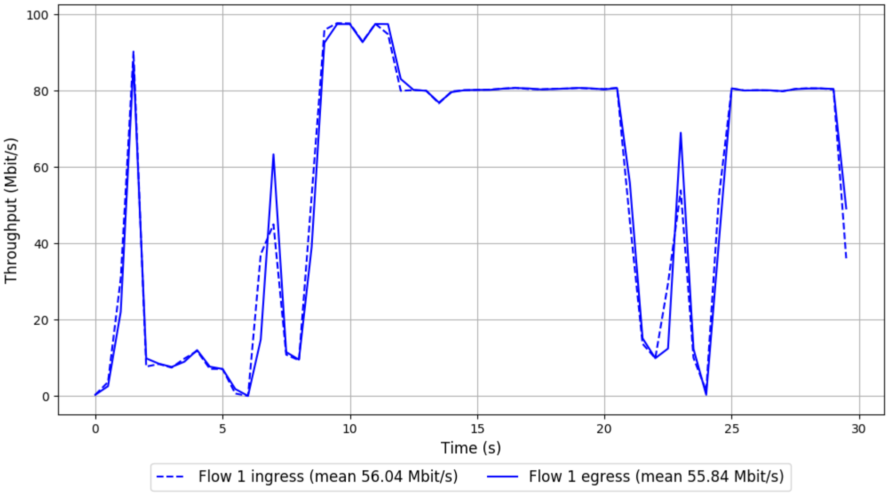
Flow 1 ingress (mean 63.20 Mbit/s) Flow 1 egress (mean 63.09 Mbit/s)

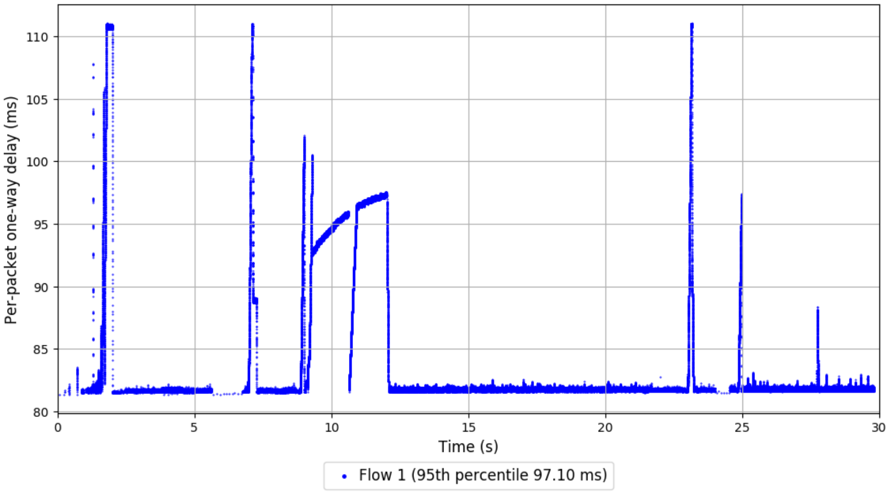


• Flow 1 (95th percentile 81.52 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-20 03:31:32
End at: 2018-02-20 03:32:02
Local clock offset: -8.233 ms
Remote clock offset: -3.767 ms

# Below is generated by plot.py at 2018-02-20 05:00:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.84 Mbit/s
95th percentile per-packet one-way delay: 97.104 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 55.84 Mbit/s
95th percentile per-packet one-way delay: 97.104 ms
Loss rate: 0.36%
```

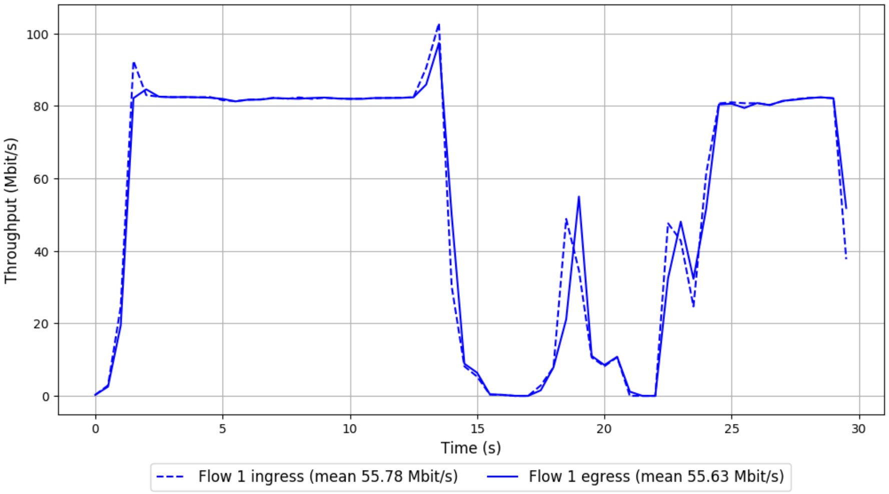
Run 8: Report of QUIC Cubic — Data Link

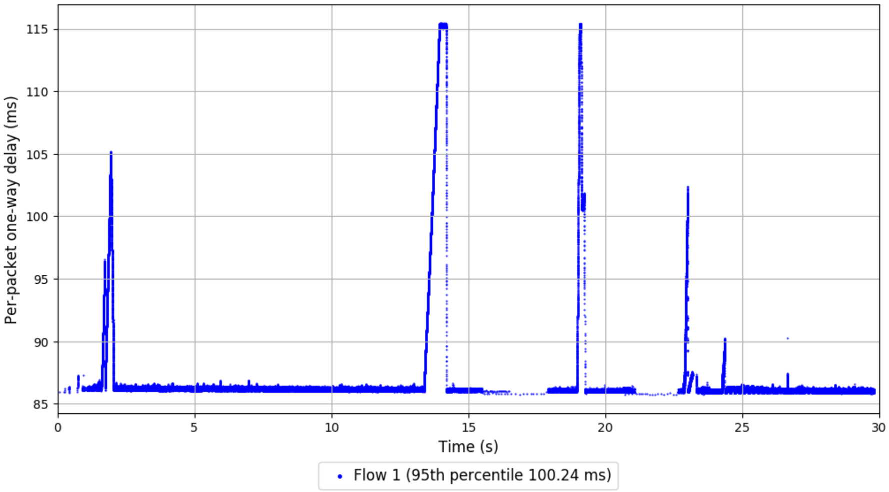




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-20 03:53:55
End at: 2018-02-20 03:54:25
Local clock offset: -17.051 ms
Remote clock offset: -2.109 ms

# Below is generated by plot.py at 2018-02-20 05:00:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 100.243 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 100.243 ms
Loss rate: 0.28%
```

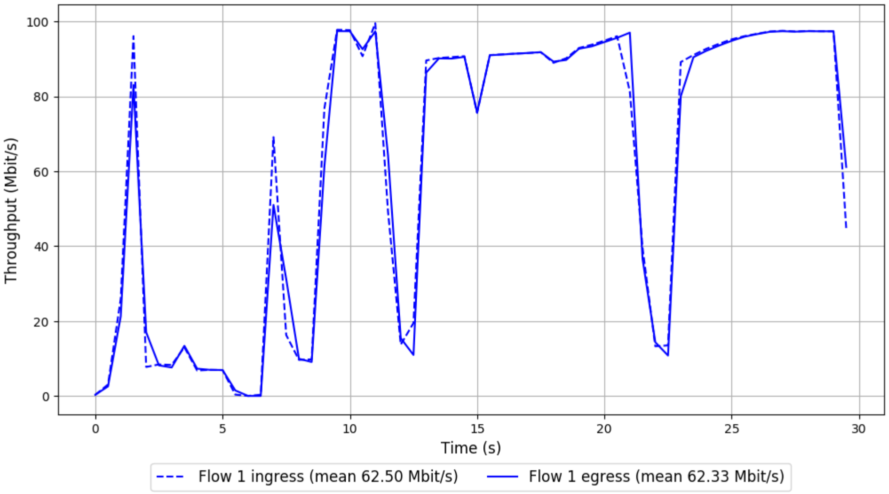
Run 9: Report of QUIC Cubic — Data Link

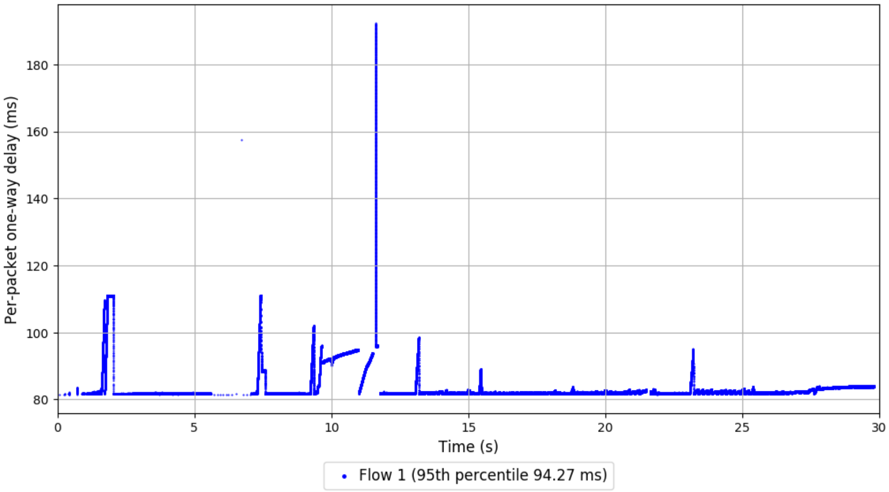




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-20 04:16:22
End at: 2018-02-20 04:16:52
Local clock offset: -14.757 ms
Remote clock offset: -5.443 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.33 Mbit/s
95th percentile per-packet one-way delay: 94.272 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 62.33 Mbit/s
95th percentile per-packet one-way delay: 94.272 ms
Loss rate: 0.26%
```

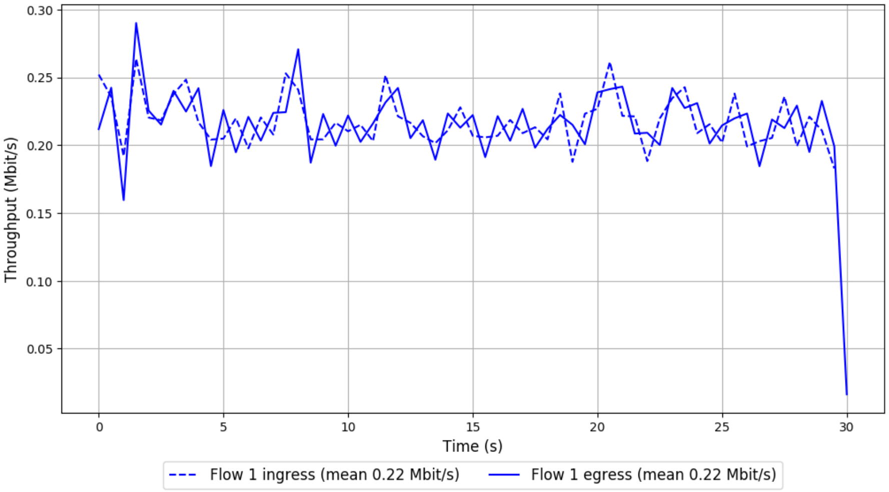
Run 10: Report of QUIC Cubic — Data Link

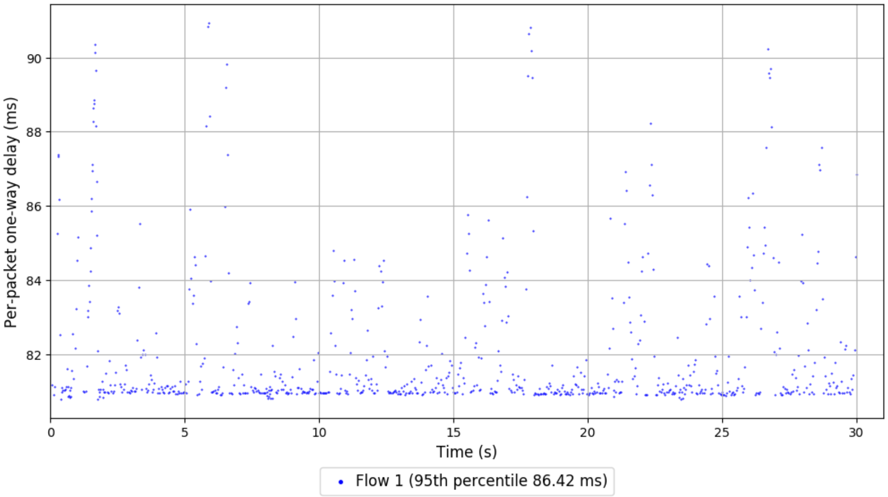




```
Run 1: Statistics of SCReAM

Start at: 2018-02-20 01:06:29
End at: 2018-02-20 01:06:59
Local clock offset: -3.172 ms
Remote clock offset: -1.848 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.417 ms
Loss rate: 0.00%
```

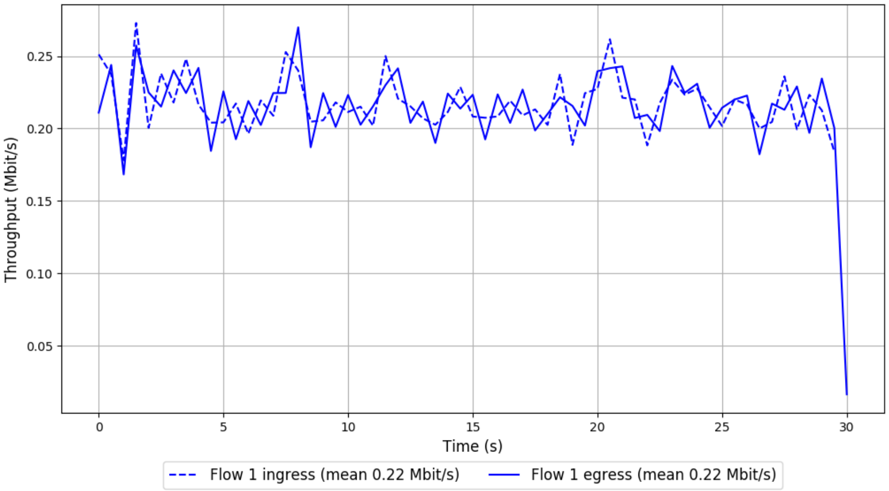
Run 1: Report of SCReAM — Data Link

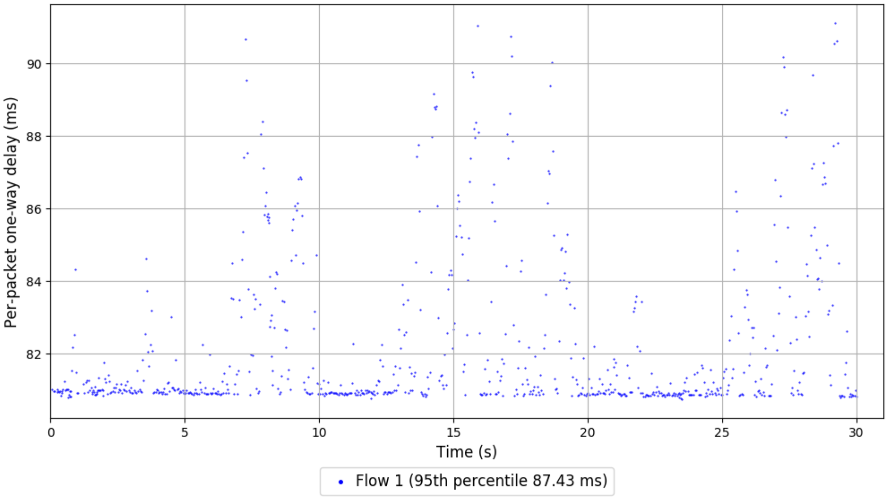




```
Run 2: Statistics of SCReAM

Start at: 2018-02-20 01:28:37
End at: 2018-02-20 01:29:07
Local clock offset: -6.458 ms
Remote clock offset: -0.636 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.426 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.426 ms
Loss rate: 0.00%
```

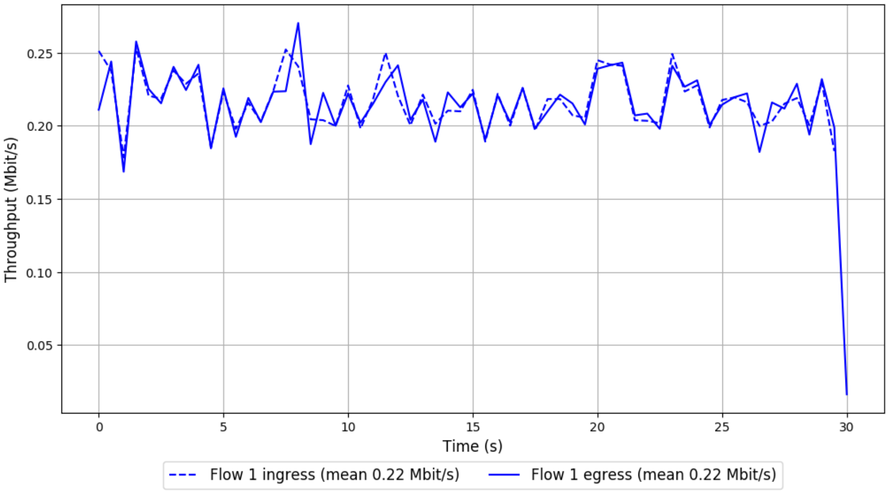
Run 2: Report of SCReAM — Data Link

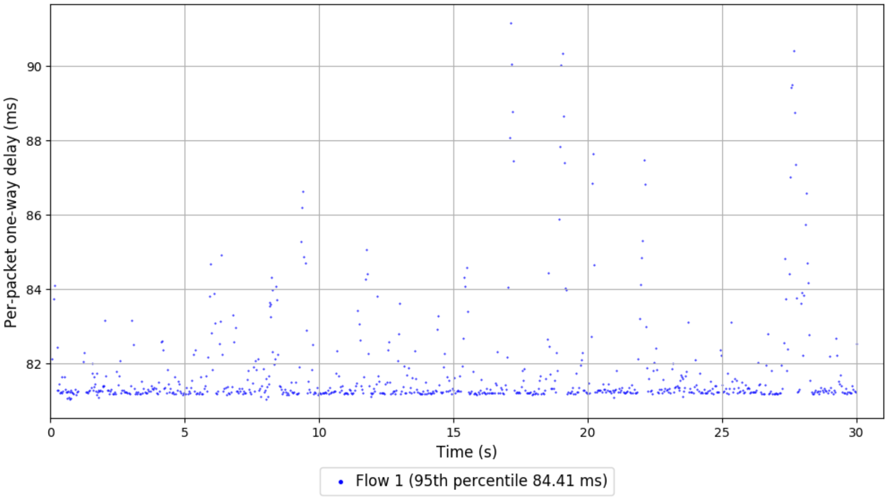




```
Run 3: Statistics of SCReAM

Start at: 2018-02-20 01:50:54
End at: 2018-02-20 01:51:24
Local clock offset: -8.452 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.406 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.406 ms
Loss rate: 0.00%
```

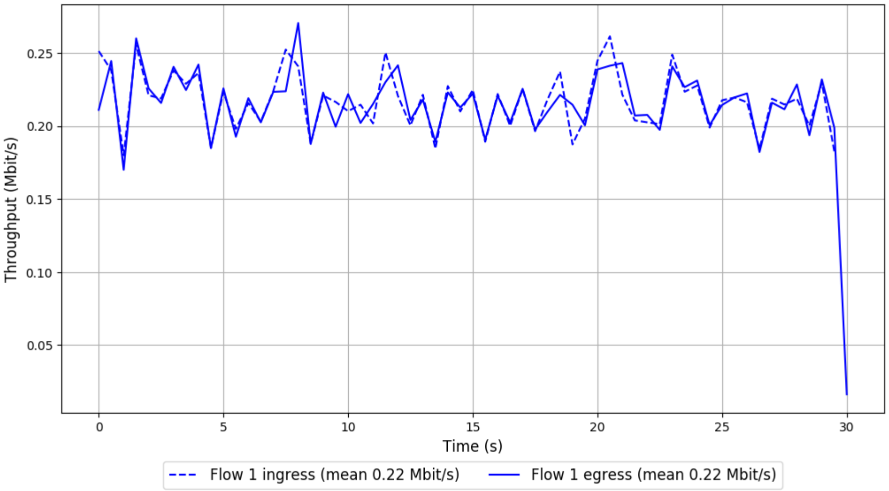
Run 3: Report of SCReAM — Data Link

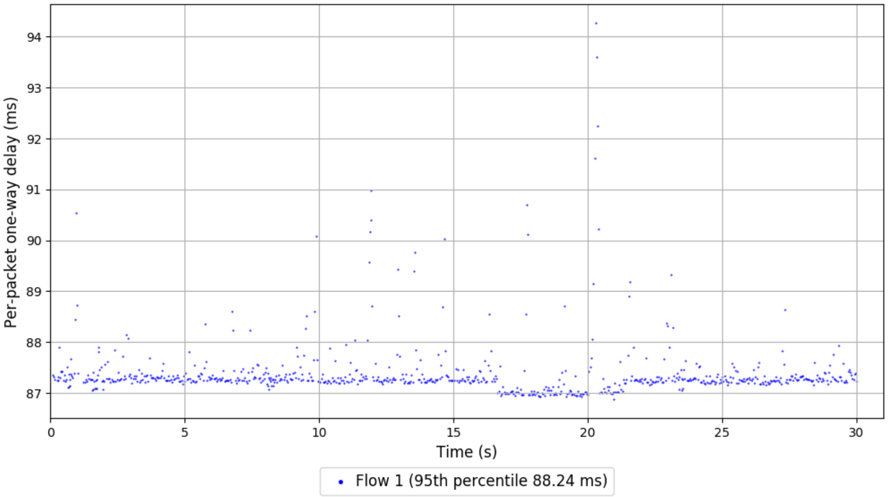




```
Run 4: Statistics of SCReAM

Start at: 2018-02-20 02:13:02
End at: 2018-02-20 02:13:32
Local clock offset: -8.218 ms
Remote clock offset: 6.182 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.241 ms
Loss rate: 0.00%
```

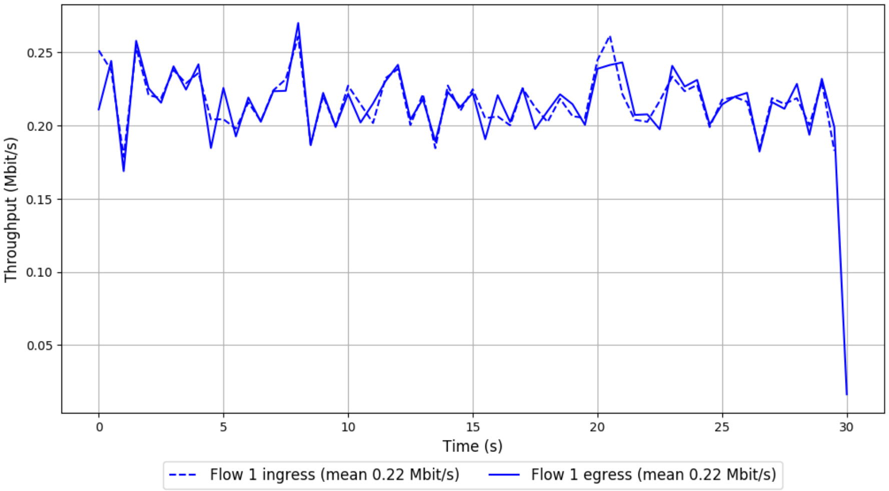
Run 4: Report of SCReAM — Data Link

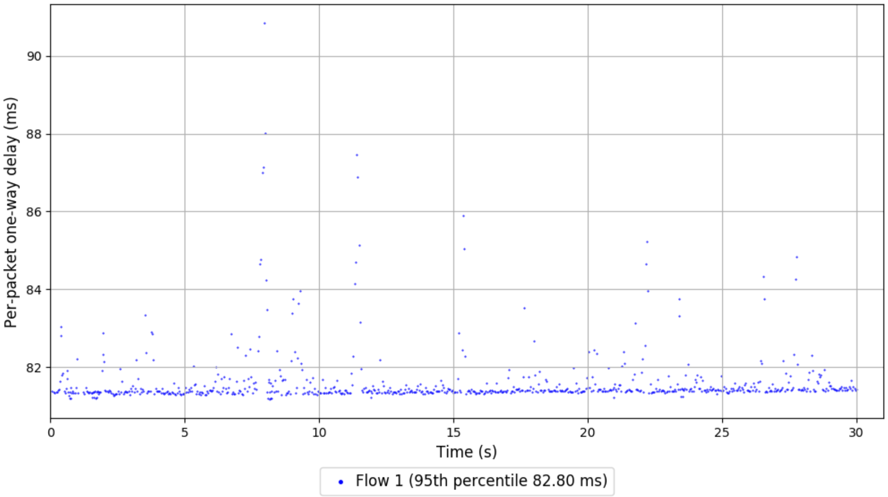




```
Run 5: Statistics of SCReAM

Start at: 2018-02-20 02:35:03
End at: 2018-02-20 02:35:33
Local clock offset: -5.356 ms
Remote clock offset: 1.058 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.804 ms
Loss rate: 0.00%
```

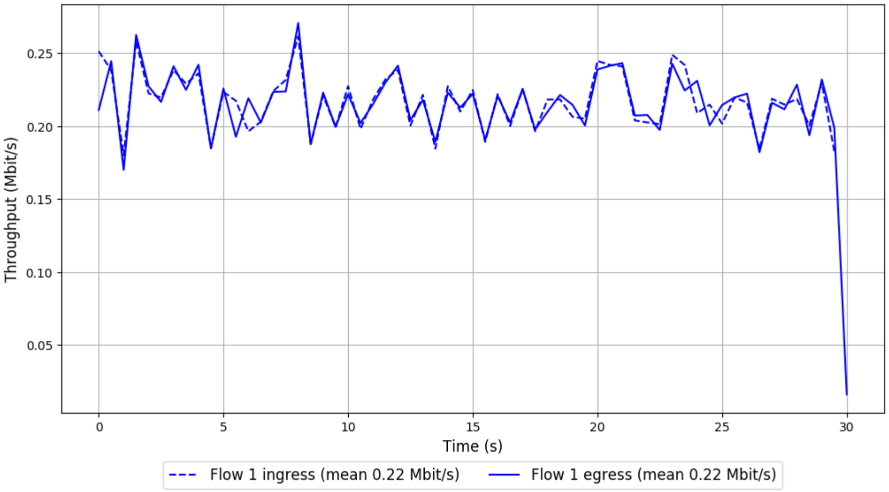
Run 5: Report of SCReAM — Data Link

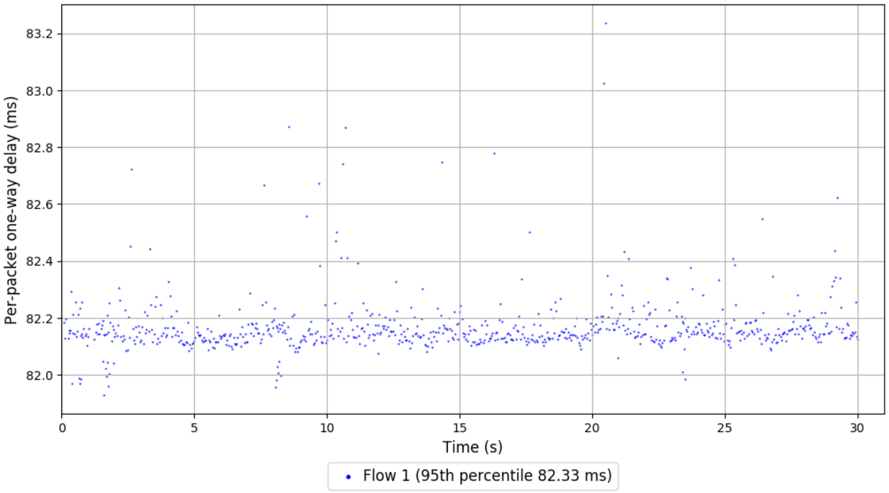




```
Run 6: Statistics of SCReAM

Start at: 2018-02-20 02:57:04
End at: 2018-02-20 02:57:34
Local clock offset: -3.005 ms
Remote clock offset: 2.513 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.326 ms
Loss rate: 0.00%
```

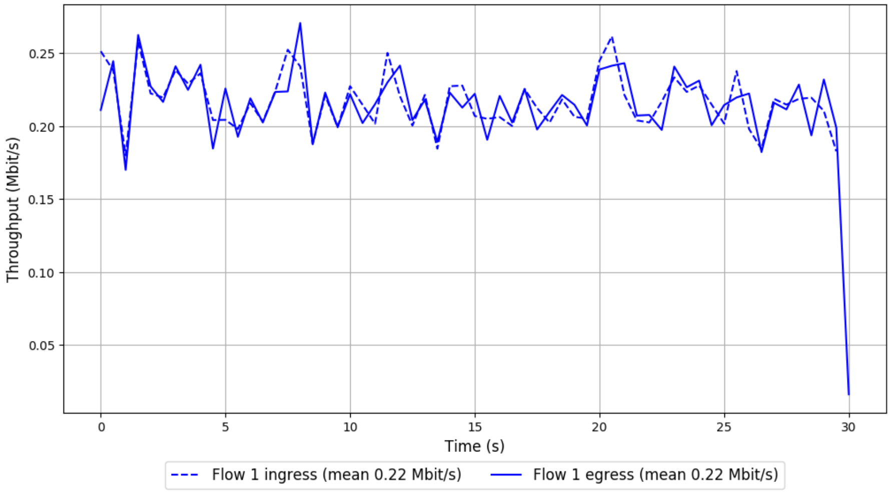
Run 6: Report of SCReAM — Data Link

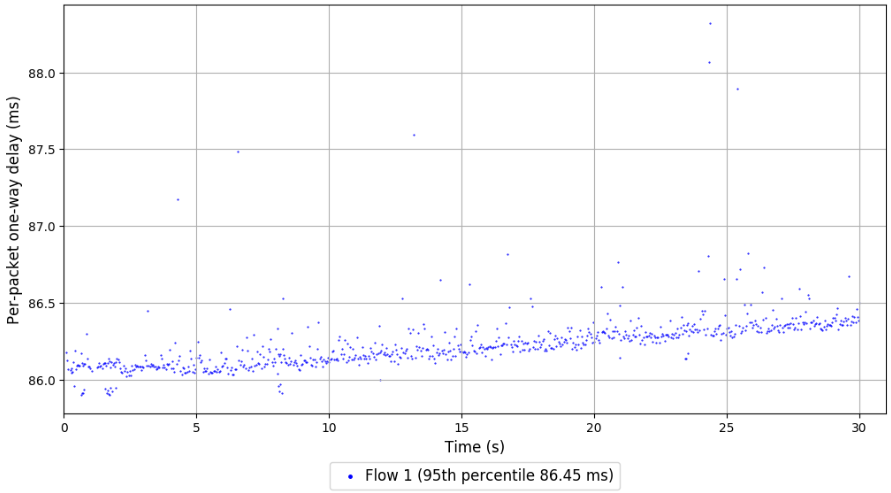




```
Run 7: Statistics of SCReAM

Start at: 2018-02-20 03:19:08
End at: 2018-02-20 03:19:38
Local clock offset: -7.653 ms
Remote clock offset: 6.959 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.450 ms
Loss rate: 0.00%
```

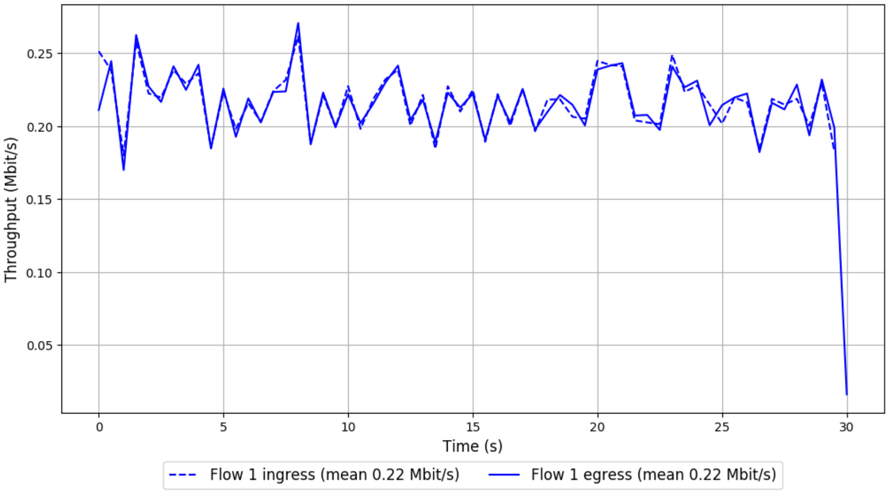
Run 7: Report of SCReAM — Data Link

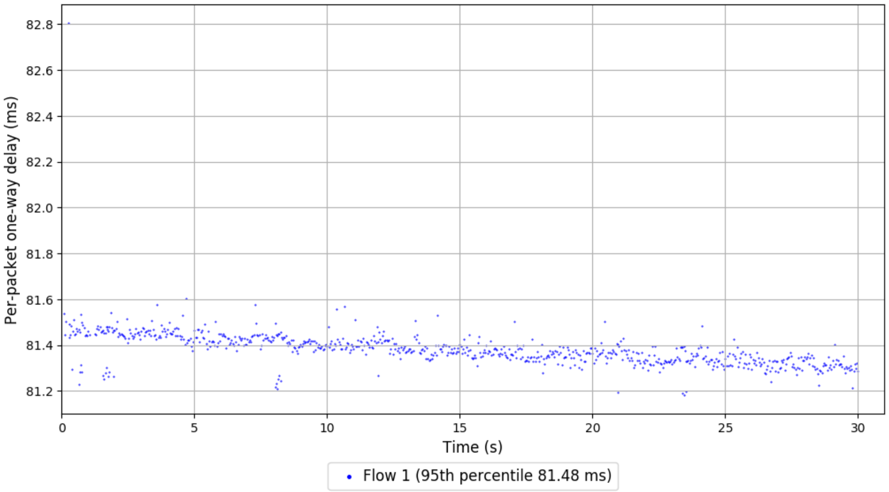




```
Run 8: Statistics of SCReAM

Start at: 2018-02-20 03:41:12
End at: 2018-02-20 03:41:42
Local clock offset: -13.45 ms
Remote clock offset: -5.594 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.477 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.477 ms
Loss rate: 0.00%
```

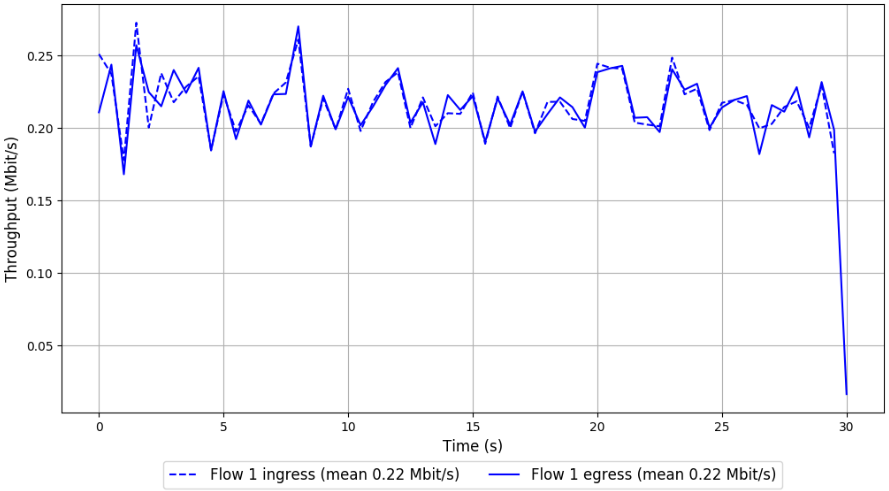
Run 8: Report of SCReAM — Data Link

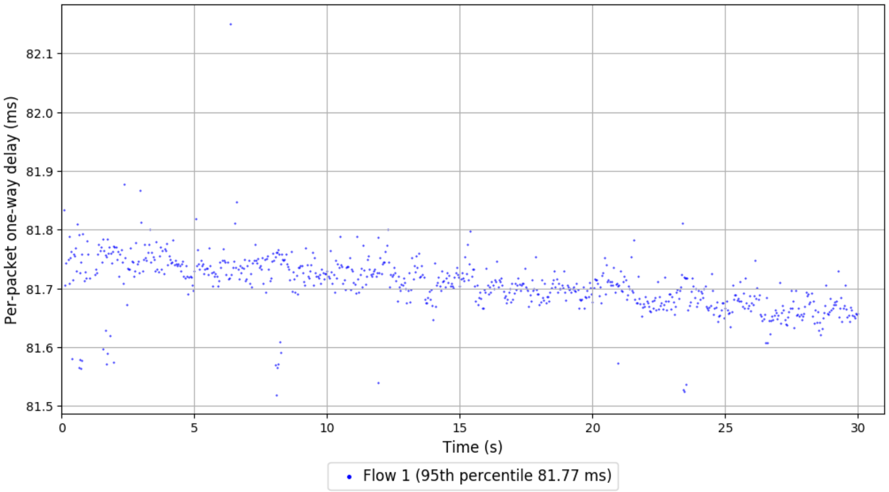




```
Run 9: Statistics of SCReAM

Start at: 2018-02-20 04:03:34
End at: 2018-02-20 04:04:04
Local clock offset: -18.671 ms
Remote clock offset: -4.652 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.771 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.771 ms
Loss rate: 0.00%
```

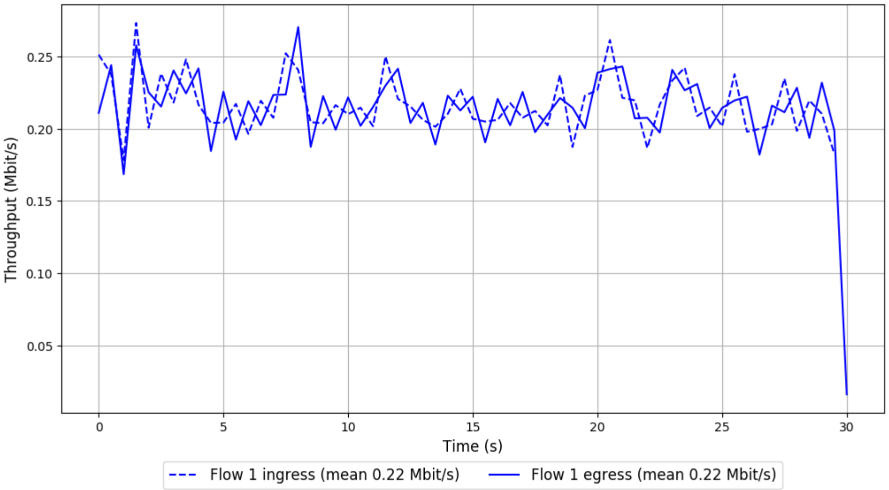
Run 9: Report of SCReAM — Data Link

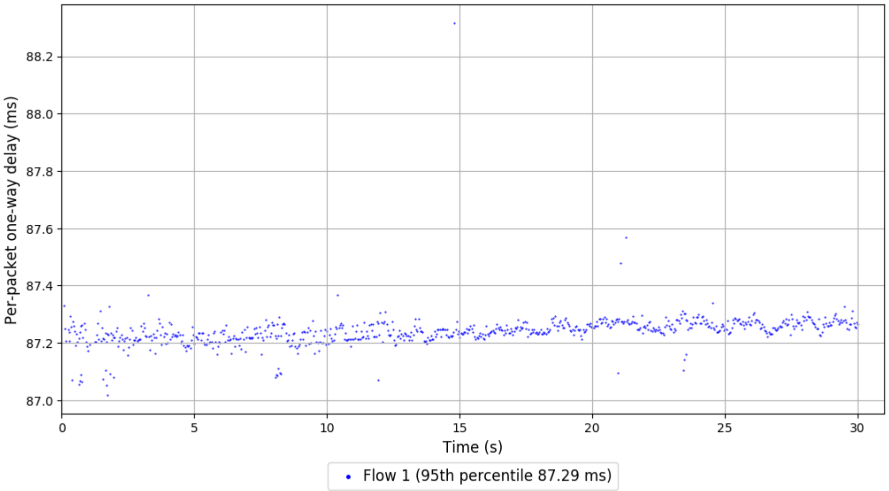




```
Run 10: Statistics of SCReAM

Start at: 2018-02-20 04:26:02
End at: 2018-02-20 04:26:32
Local clock offset: -13.19 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.290 ms
Loss rate: 0.00%
```

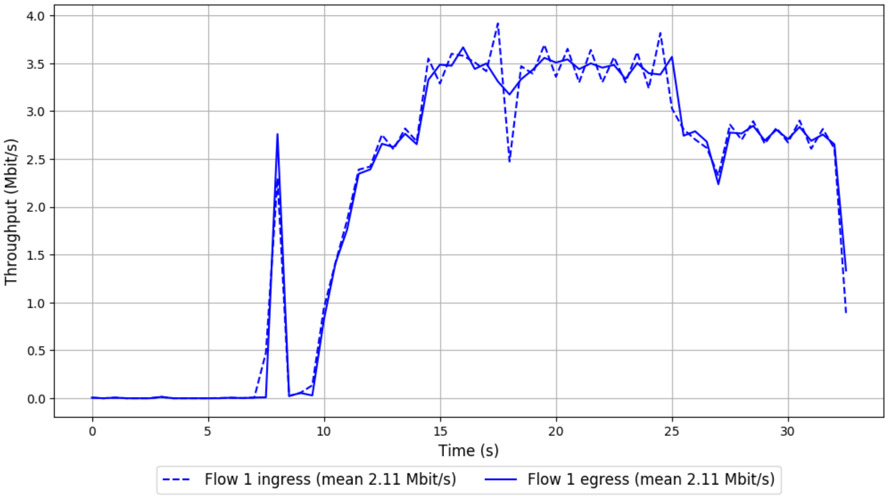
Run 10: Report of SCReAM — Data Link

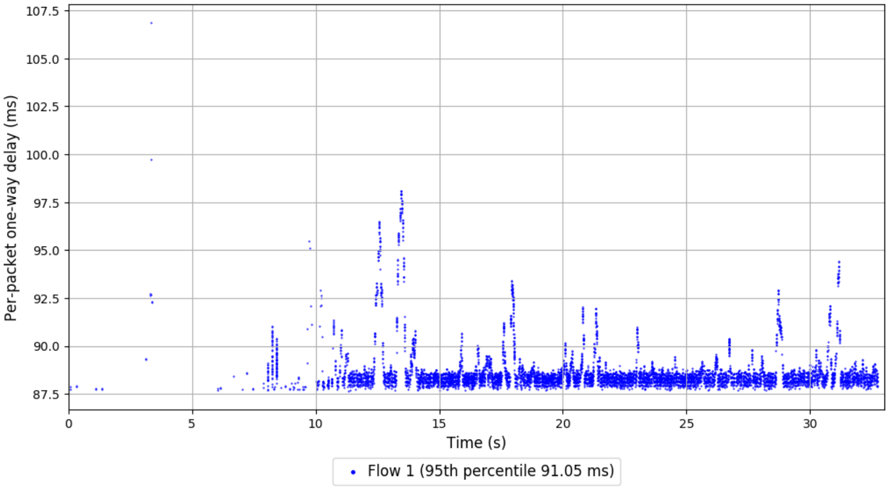




```
Run 1: Statistics of WebRTC media

Start at: 2018-02-20 01:01:40
End at: 2018-02-20 01:02:10
Local clock offset: -3.439 ms
Remote clock offset: 4.271 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 91.053 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 91.053 ms
Loss rate: 0.03%
```

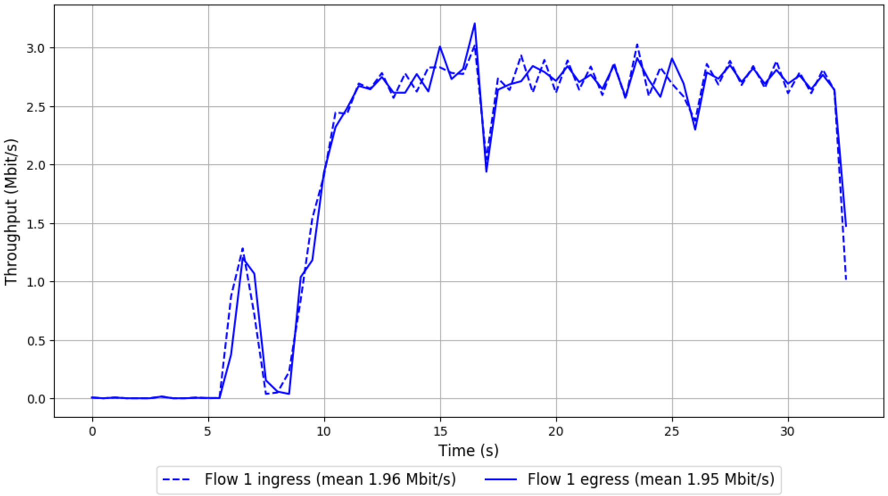
Run 1: Report of WebRTC media — Data Link

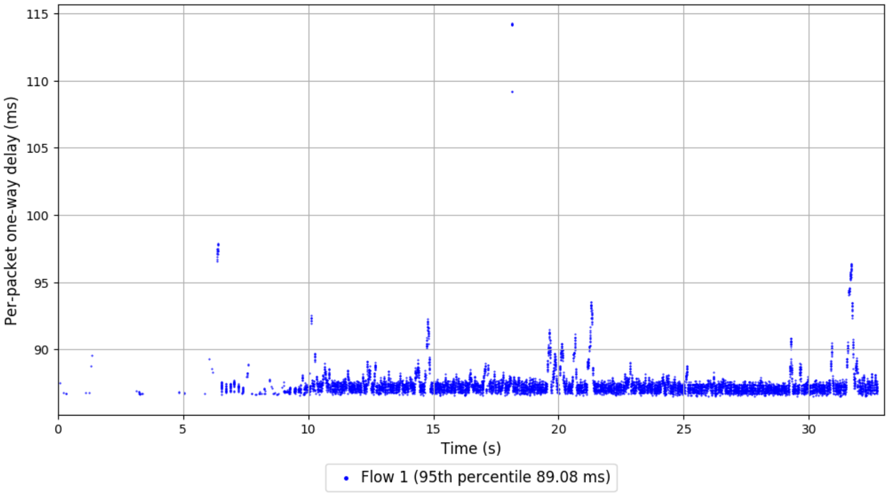




```
Run 2: Statistics of WebRTC media

Start at: 2018-02-20 01:23:46
End at: 2018-02-20 01:24:16
Local clock offset: -5.432 ms
Remote clock offset: 4.874 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 89.081 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 89.081 ms
Loss rate: 0.08%
```

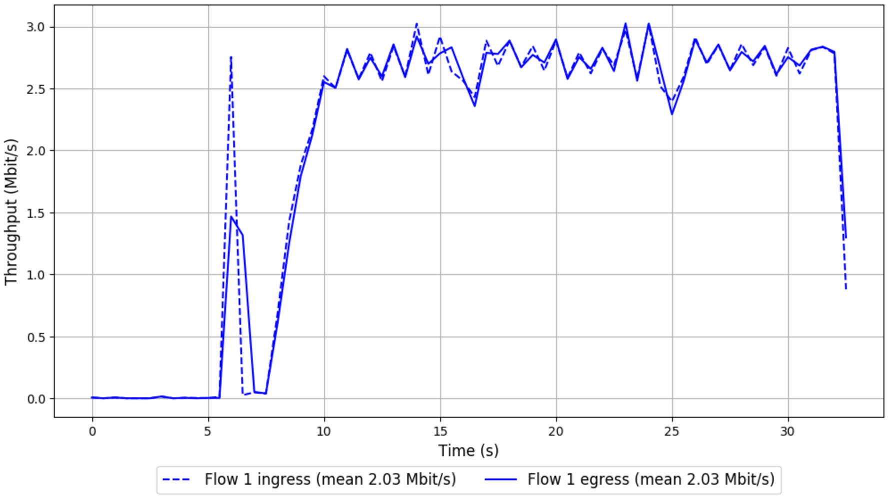
Run 2: Report of WebRTC media — Data Link

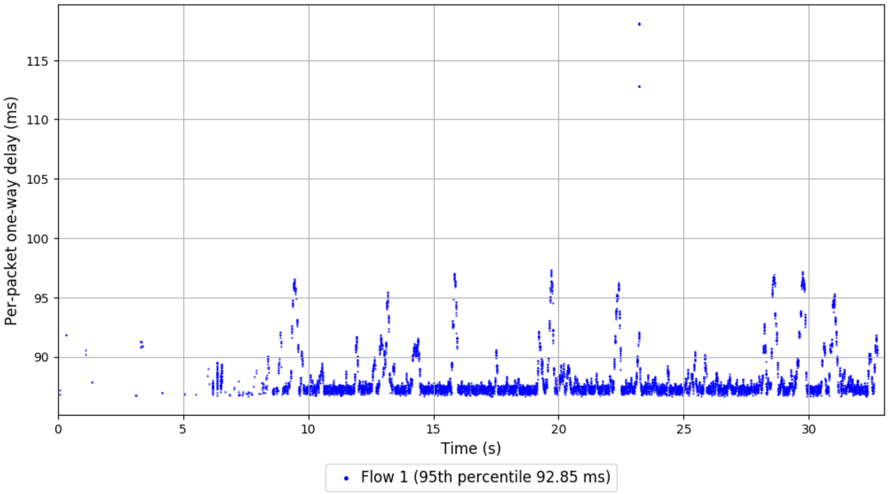




```
Run 3: Statistics of WebRTC media

Start at: 2018-02-20 01:46:02
End at: 2018-02-20 01:46:32
Local clock offset: -8.069 ms
Remote clock offset: 5.484 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 92.852 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 92.852 ms
Loss rate: 0.01%
```

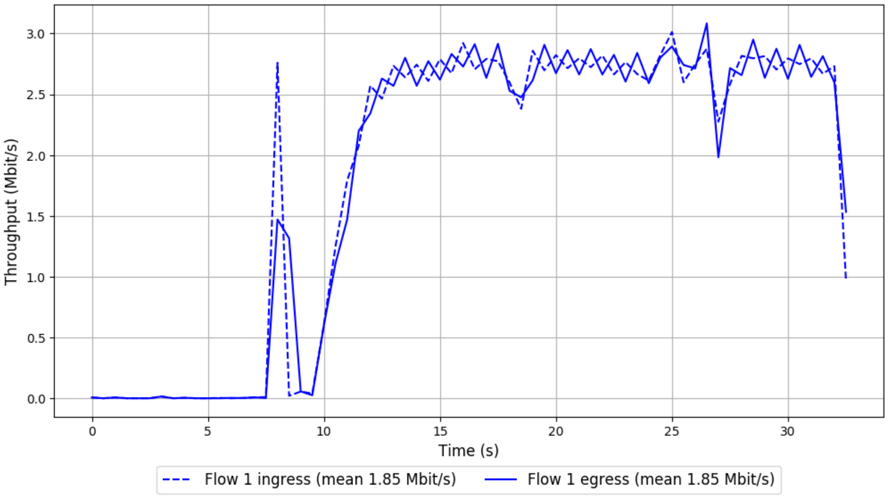
Run 3: Report of WebRTC media — Data Link

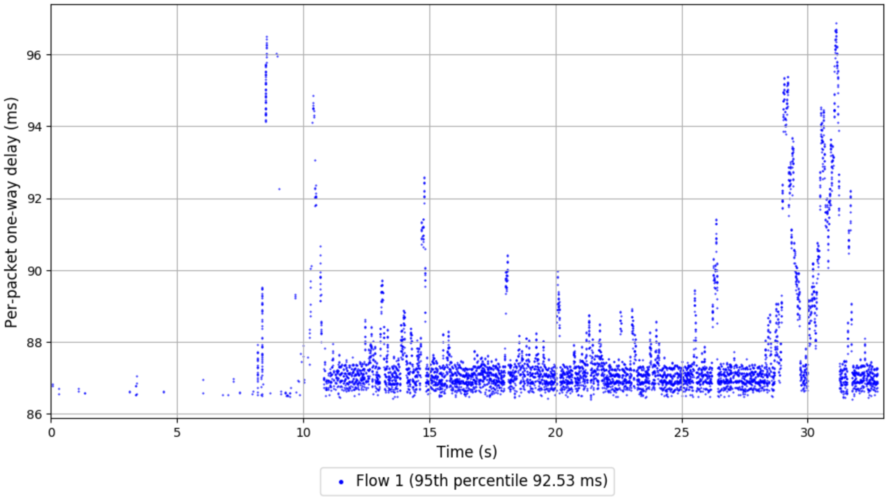




```
Run 4: Statistics of WebRTC media

Start at: 2018-02-20 02:08:12
End at: 2018-02-20 02:08:42
Local clock offset: -8.052 ms
Remote clock offset: 6.093 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 92.529 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 92.529 ms
Loss rate: 0.02%
```

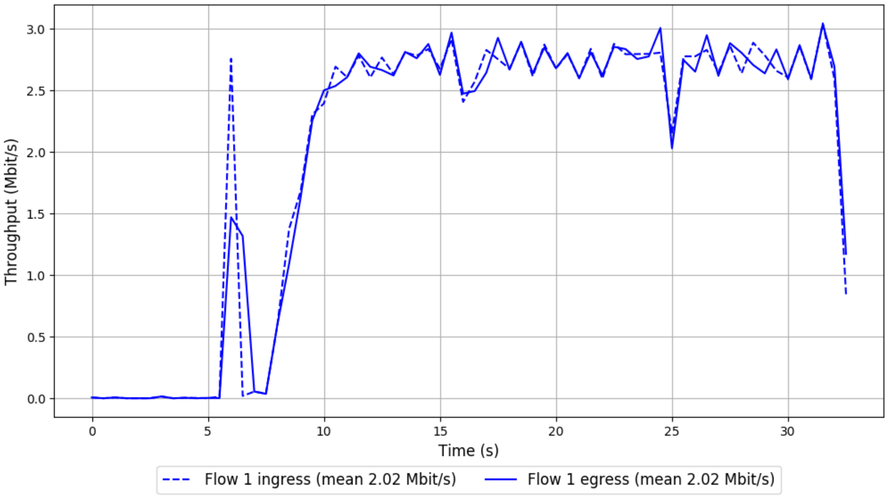
Run 4: Report of WebRTC media — Data Link

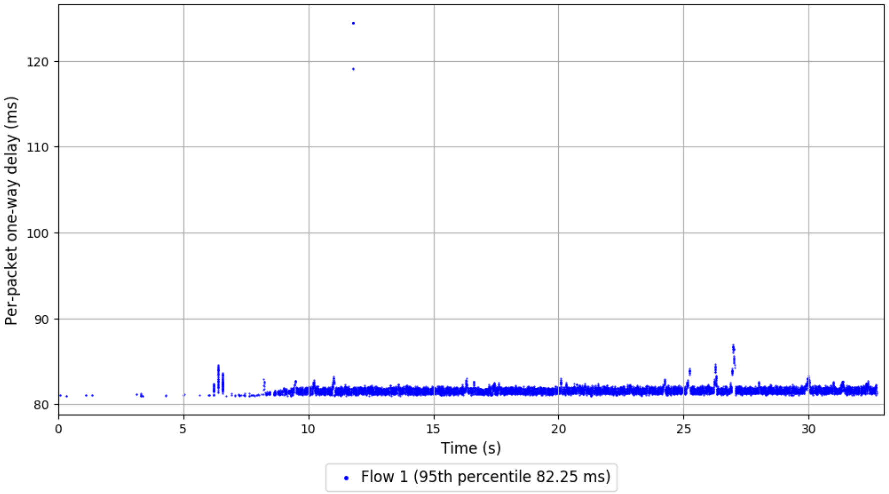




```
Run 5: Statistics of WebRTC media

Start at: 2018-02-20 02:30:13
End at: 2018-02-20 02:30:43
Local clock offset: -6.49 ms
Remote clock offset: 0.992 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 82.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 82.254 ms
Loss rate: 0.00%
```

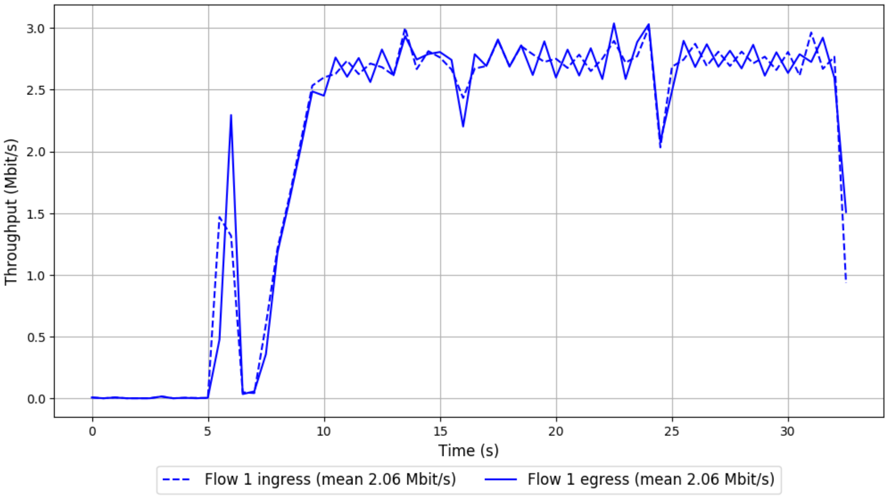
Run 5: Report of WebRTC media — Data Link

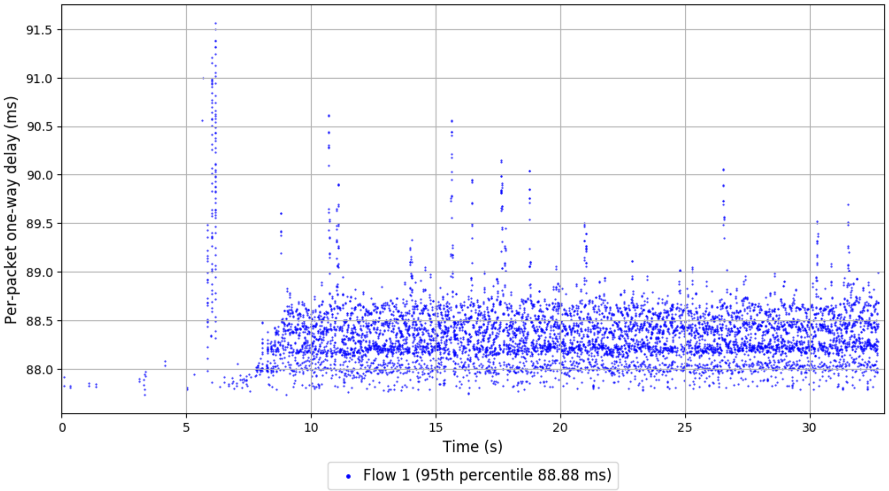




```
Run 6: Statistics of WebRTC media

Start at: 2018-02-20 02:52:14
End at: 2018-02-20 02:52:44
Local clock offset: -3.39 ms
Remote clock offset: 8.117 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 88.879 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 88.879 ms
Loss rate: 0.02%
```

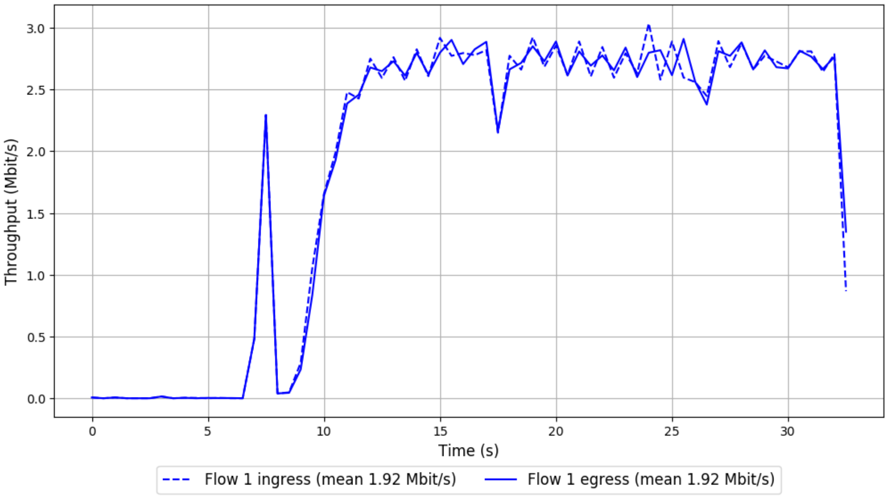
Run 6: Report of WebRTC media — Data Link

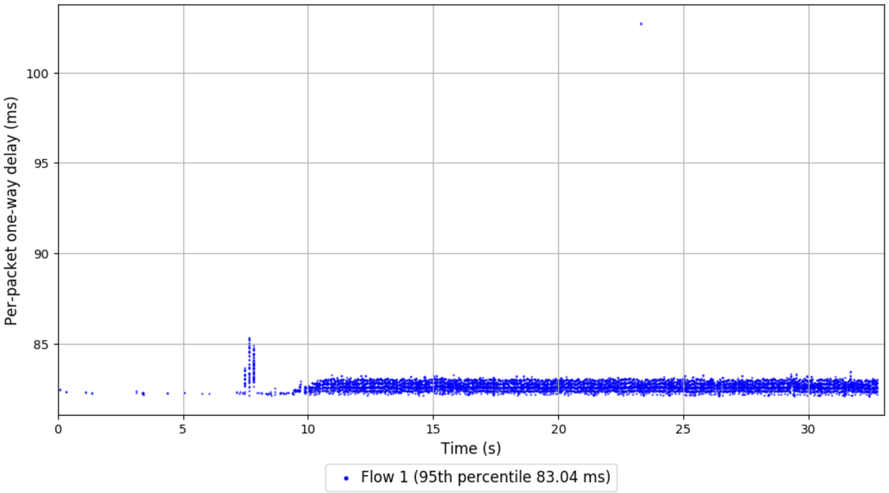




```
Run 7: Statistics of WebRTC media

Start at: 2018-02-20 03:14:17
End at: 2018-02-20 03:14:47
Local clock offset: -7.201 ms
Remote clock offset: 2.988 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 83.039 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 83.039 ms
Loss rate: 0.00%
```

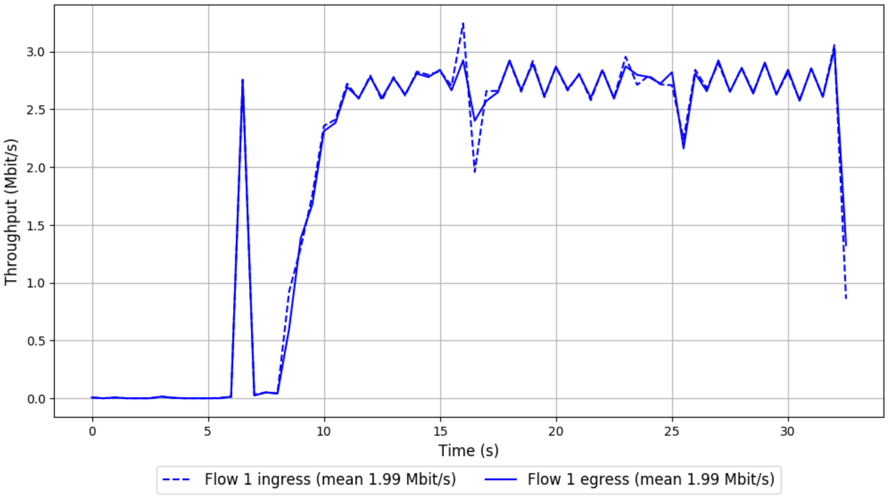
Run 7: Report of WebRTC media — Data Link

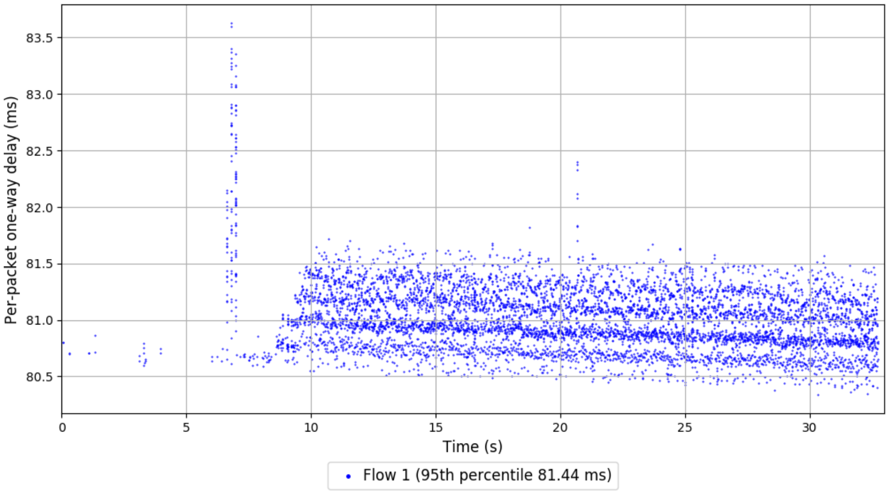




```
Run 8: Statistics of WebRTC media

Start at: 2018-02-20 03:36:21
End at: 2018-02-20 03:36:51
Local clock offset: -10.643 ms
Remote clock offset: -4.772 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 81.436 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 81.436 ms
Loss rate: 0.00%
```

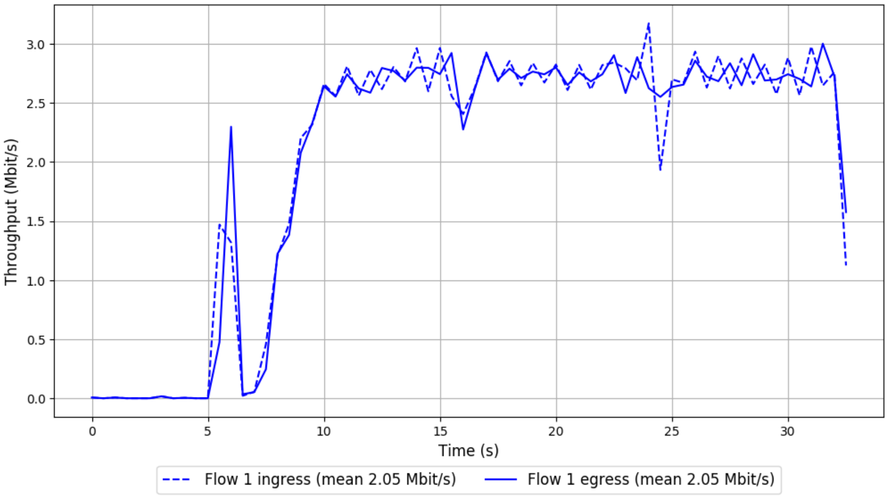
Run 8: Report of WebRTC media — Data Link

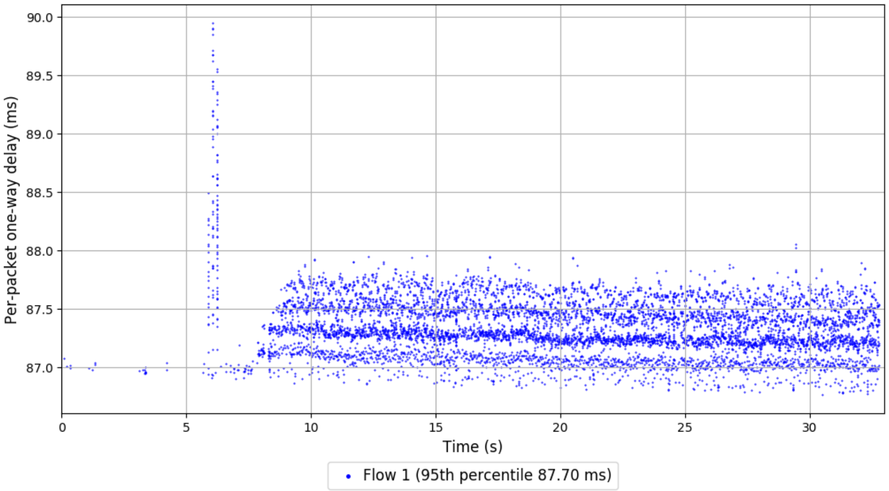




```
Run 9: Statistics of WebRTC media

Start at: 2018-02-20 03:58:44
End at: 2018-02-20 03:59:14
Local clock offset: -17.934 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 87.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 87.705 ms
Loss rate: 0.00%
```

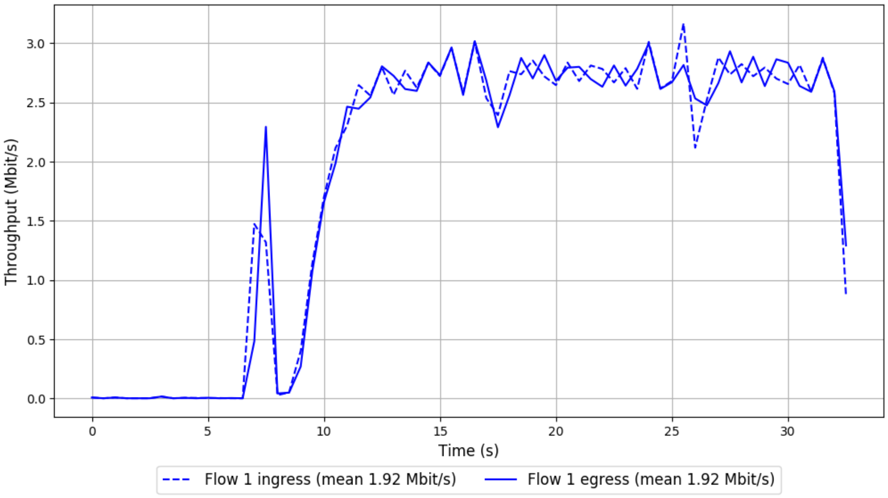
Run 9: Report of WebRTC media — Data Link

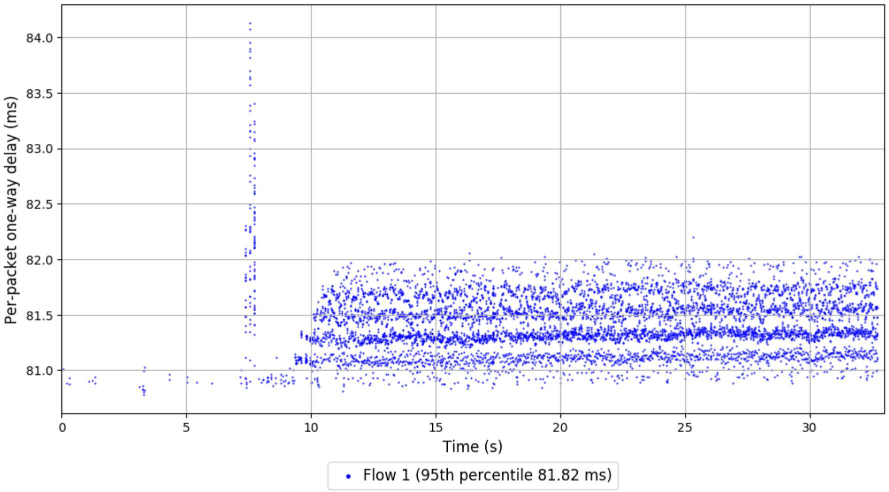




```
Run 10: Statistics of WebRTC media

Start at: 2018-02-20 04:21:11
End at: 2018-02-20 04:21:41
Local clock offset: -13.799 ms
Remote clock offset: -5.635 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 81.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 81.823 ms
Loss rate: 0.00%
```

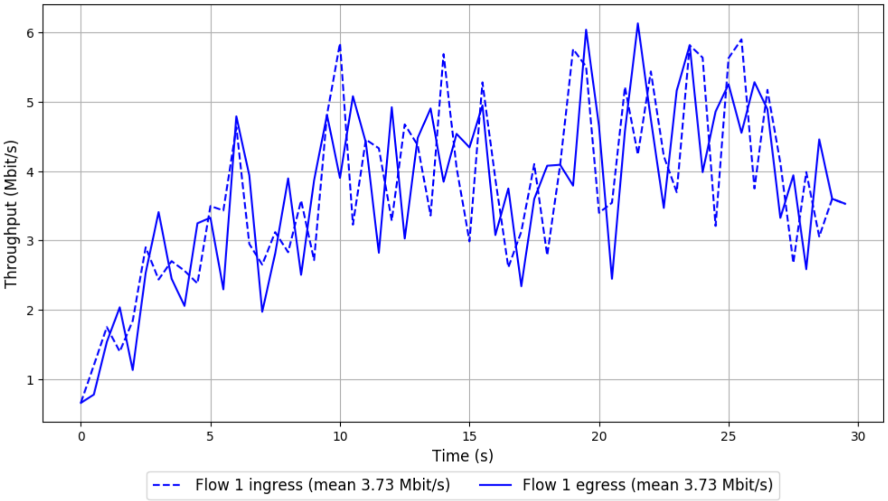
Run 10: Report of WebRTC media — Data Link

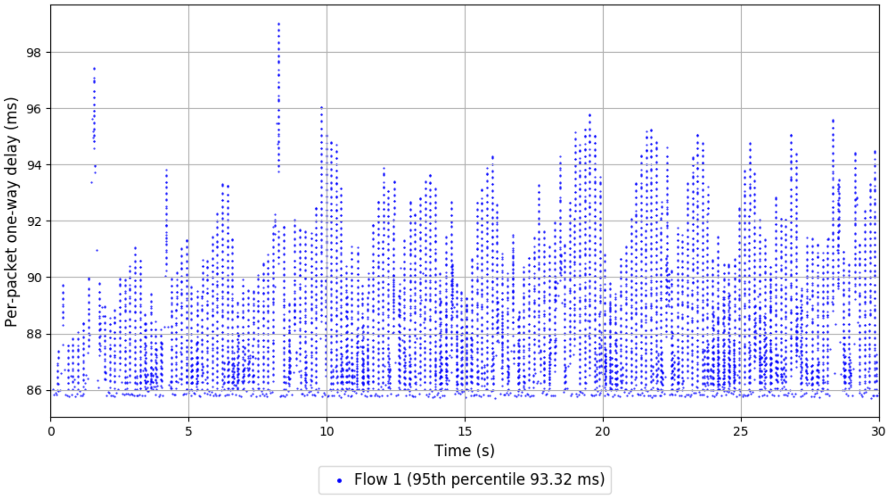




```
Run 1: Statistics of Sprout

Start at: 2018-02-20 01:08:55
End at: 2018-02-20 01:09:25
Local clock offset: -3.071 ms
Remote clock offset: 3.295 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 93.324 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 93.324 ms
Loss rate: 0.00%
```

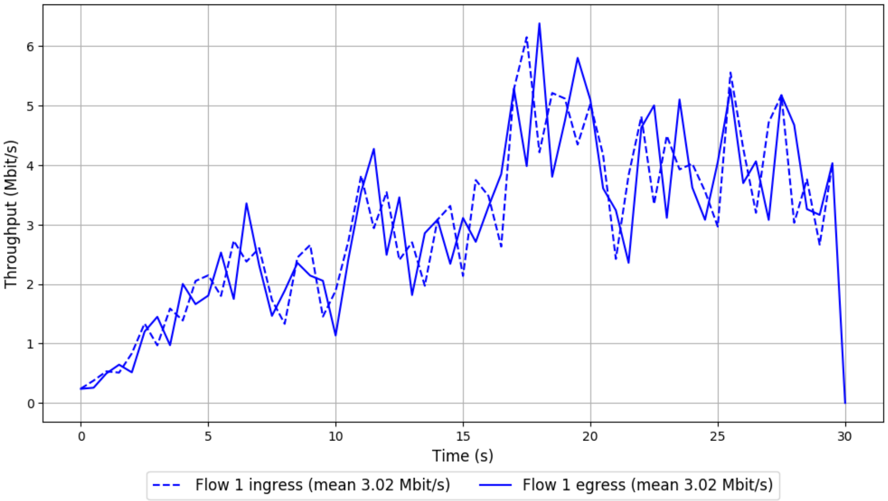
Run 1: Report of Sprout — Data Link

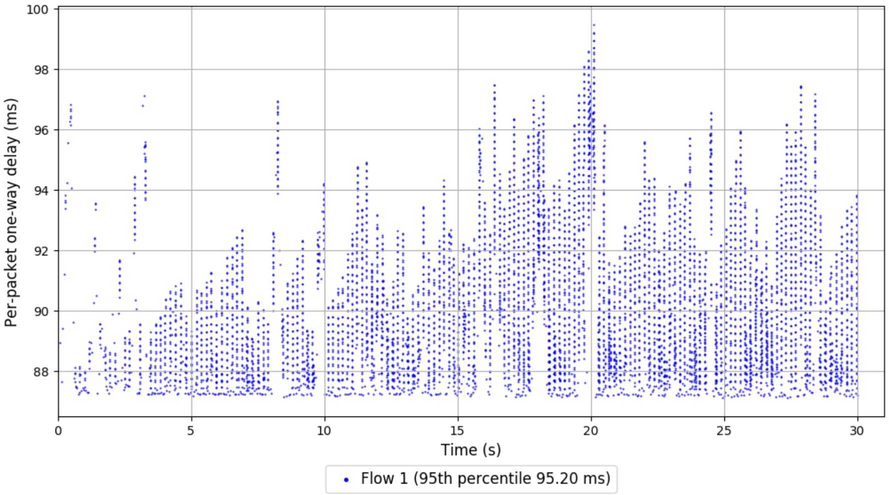




```
Run 2: Statistics of Sprout

Start at: 2018-02-20 01:31:06
End at: 2018-02-20 01:31:36
Local clock offset: -6.854 ms
Remote clock offset: 5.873 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 95.205 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 95.205 ms
Loss rate: 0.00%
```

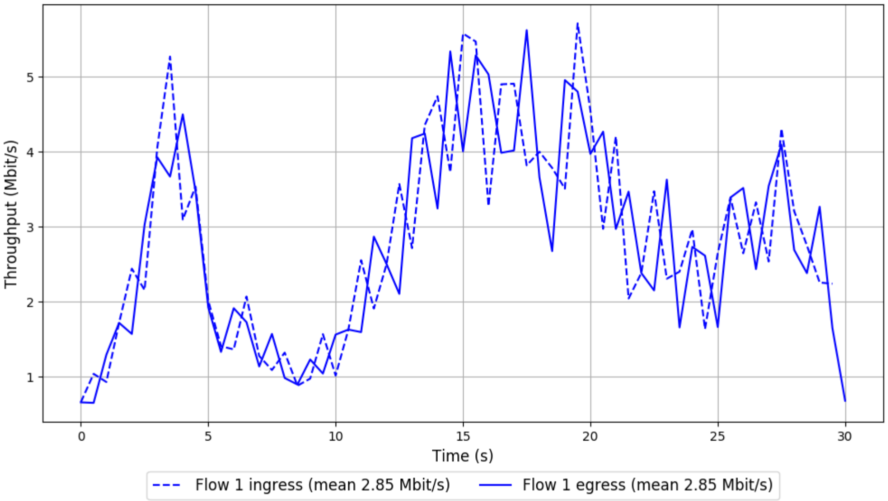
Run 2: Report of Sprout — Data Link

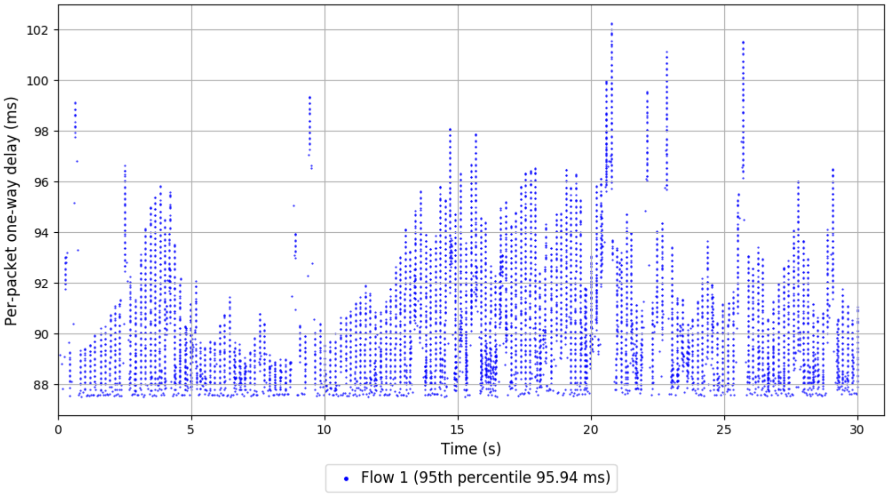




```
Run 3: Statistics of Sprout

Start at: 2018-02-20 01:53:20
End at: 2018-02-20 01:53:50
Local clock offset: -8.335 ms
Remote clock offset: 6.586 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 95.941 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 95.941 ms
Loss rate: 0.04%
```

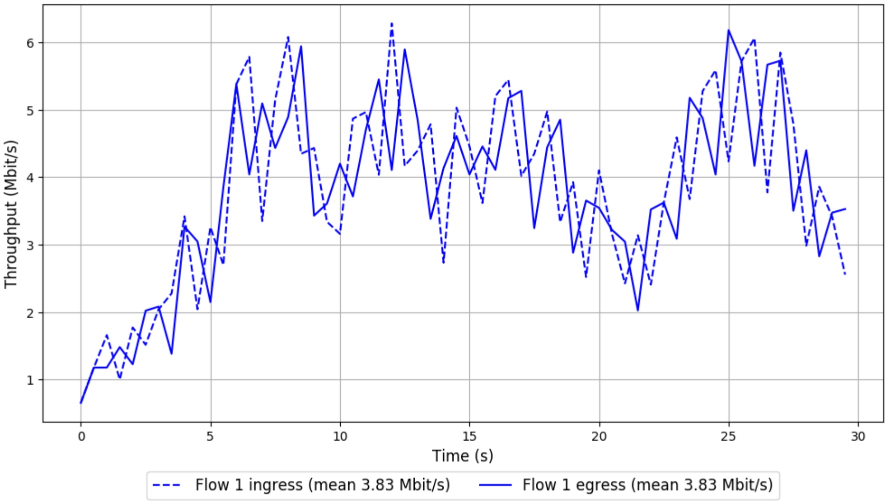
Run 3: Report of Sprout — Data Link

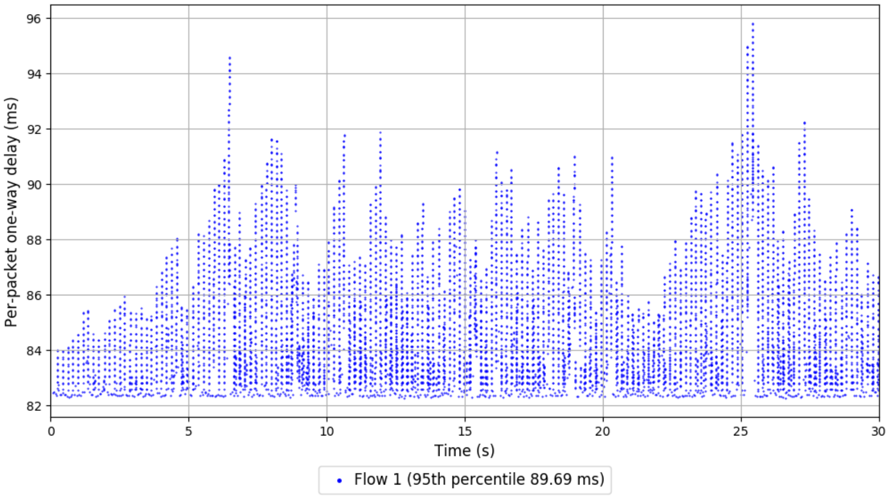




```
Run 4: Statistics of Sprout

Start at: 2018-02-20 02:15:29
End at: 2018-02-20 02:15:59
Local clock offset: -8.225 ms
Remote clock offset: 1.327 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 89.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 89.685 ms
Loss rate: 0.00%
```

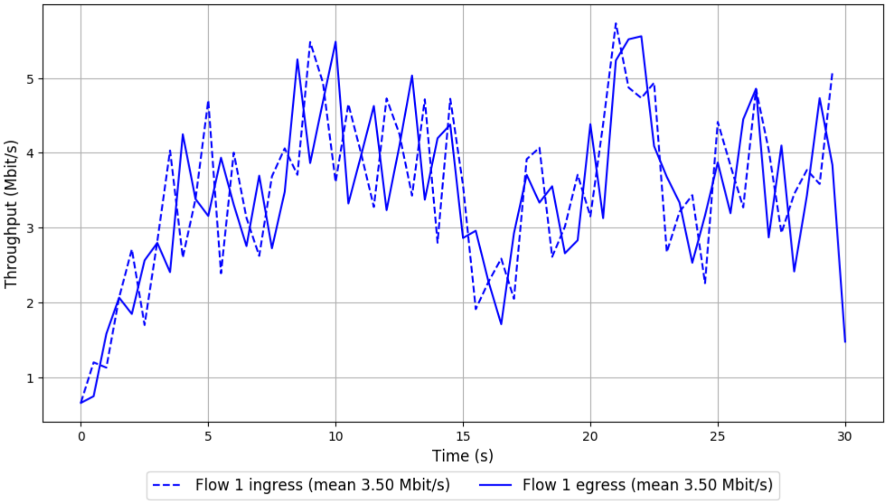
Run 4: Report of Sprout — Data Link

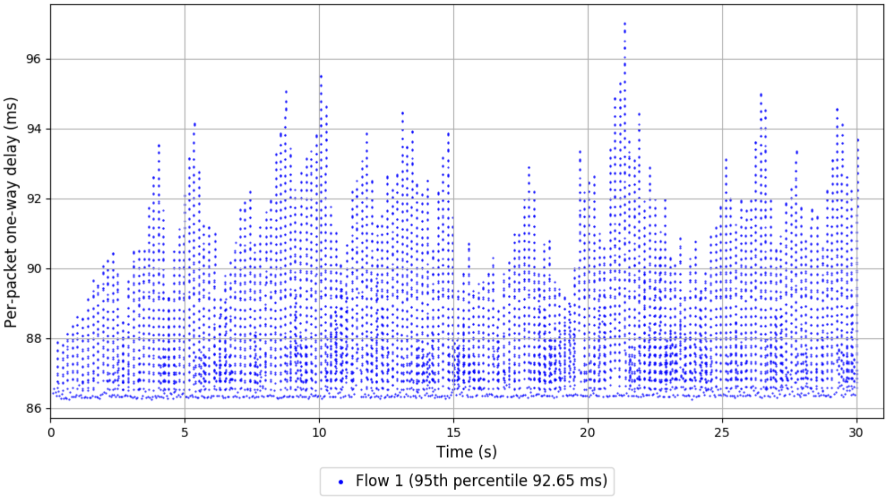




```
Run 5: Statistics of Sprout

Start at: 2018-02-20 02:37:28
End at: 2018-02-20 02:37:58
Local clock offset: -4.886 ms
Remote clock offset: 5.97 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 92.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 92.649 ms
Loss rate: 0.00%
```

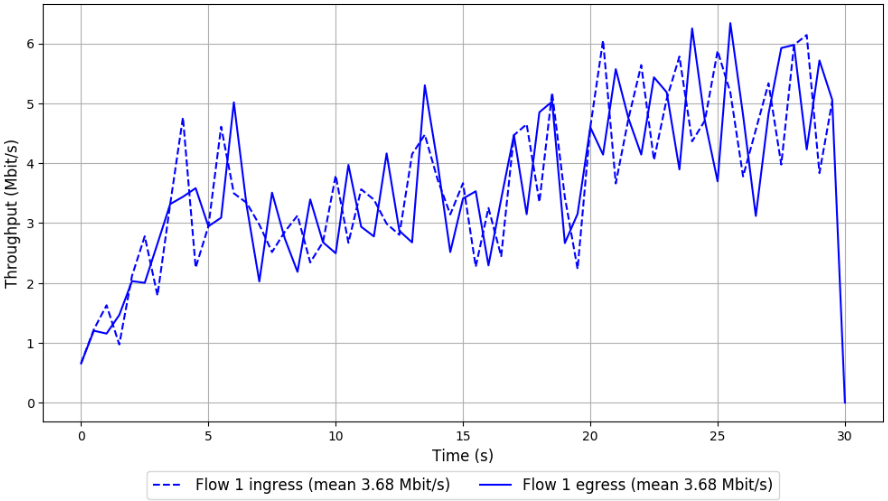
Run 5: Report of Sprout — Data Link

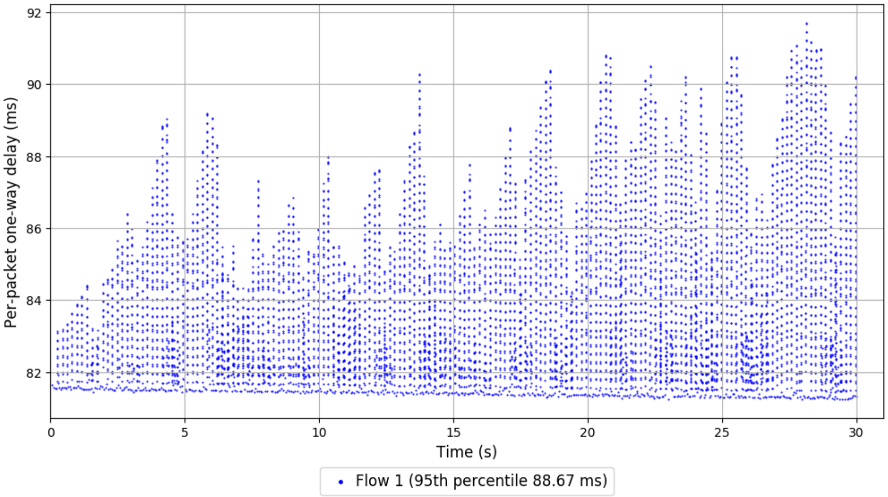




```
Run 6: Statistics of Sprout

Start at: 2018-02-20 02:59:29
End at: 2018-02-20 02:59:59
Local clock offset: -3.041 ms
Remote clock offset: 2.552 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 88.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 88.672 ms
Loss rate: 0.00%
```

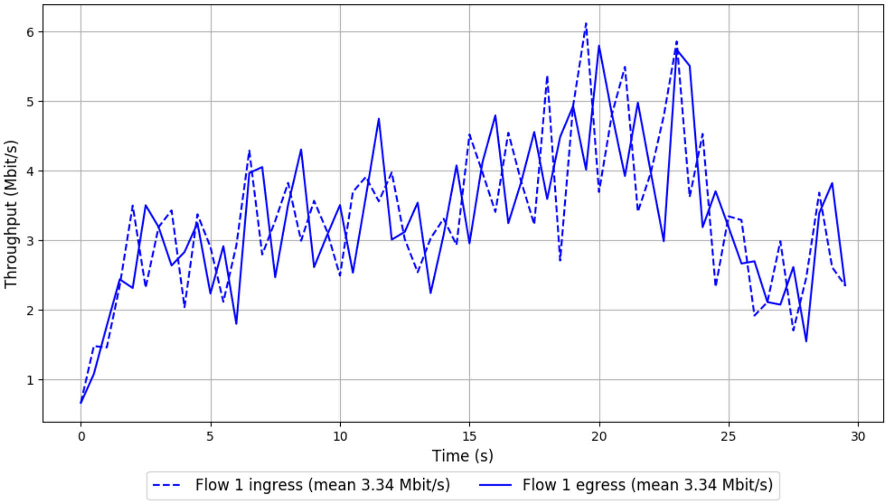
Run 6: Report of Sprout — Data Link

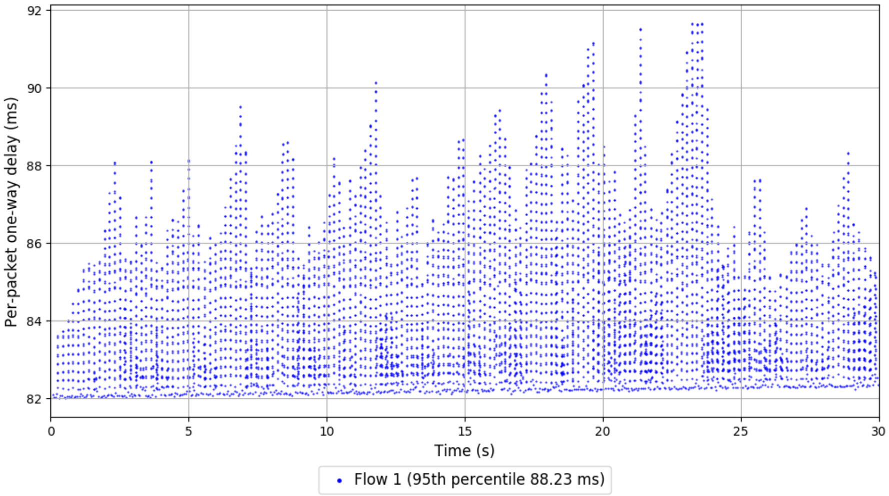




```
Run 7: Statistics of Sprout

Start at: 2018-02-20 03:21:33
End at: 2018-02-20 03:22:03
Local clock offset: -7.817 ms
Remote clock offset: 1.378 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 88.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 88.232 ms
Loss rate: 0.00%
```

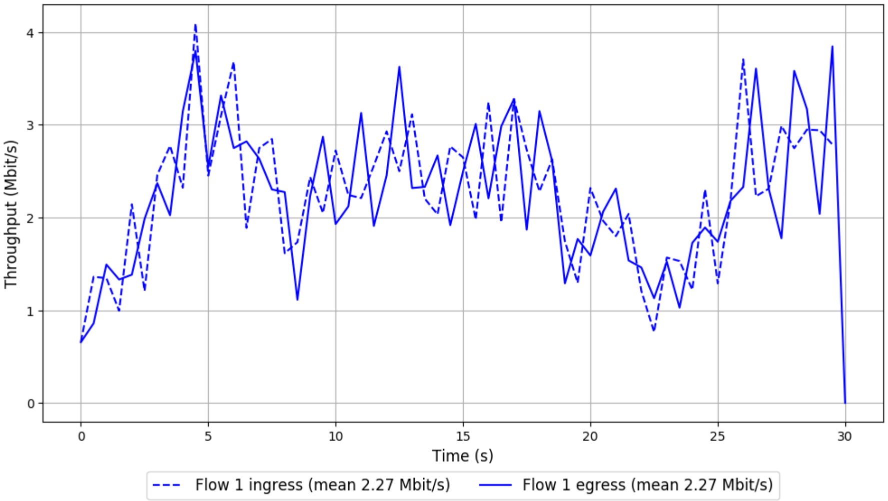
Run 7: Report of Sprout — Data Link

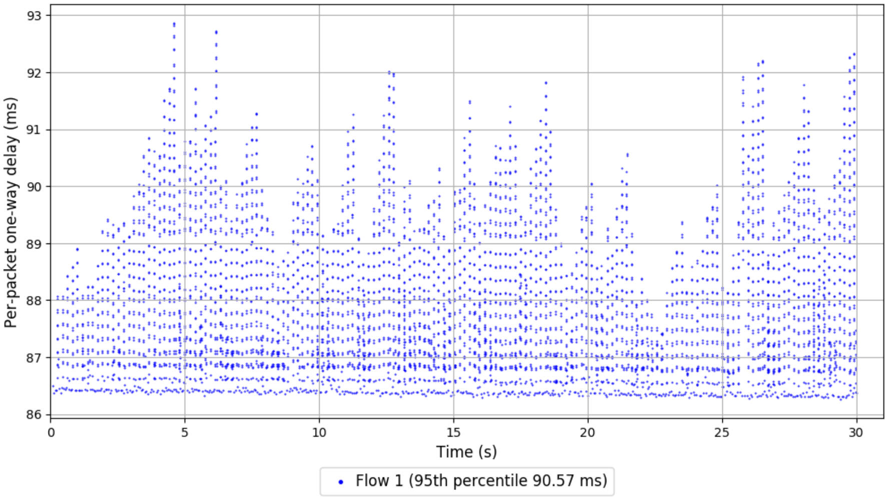




```
Run 8: Statistics of Sprout

Start at: 2018-02-20 03:43:38
End at: 2018-02-20 03:44:08
Local clock offset: -14.444 ms
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 90.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 90.573 ms
Loss rate: 0.00%
```

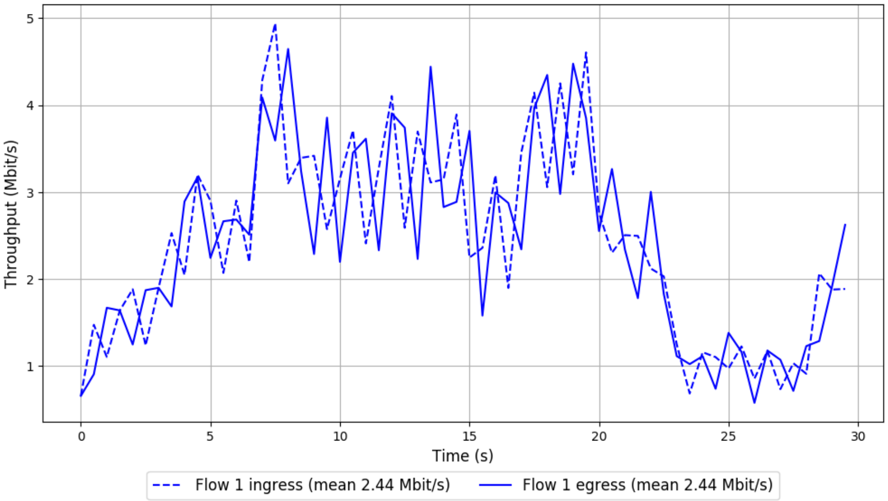
Run 8: Report of Sprout — Data Link

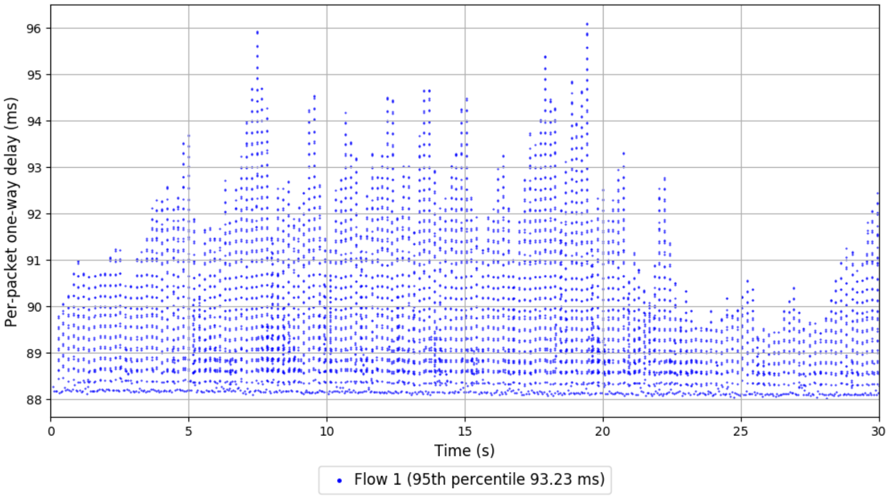




```
Run 9: Statistics of Sprout

Start at: 2018-02-20 04:06:01
End at: 2018-02-20 04:06:31
Local clock offset: -19.029 ms
Remote clock offset: 1.158 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 93.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 93.227 ms
Loss rate: 0.00%
```

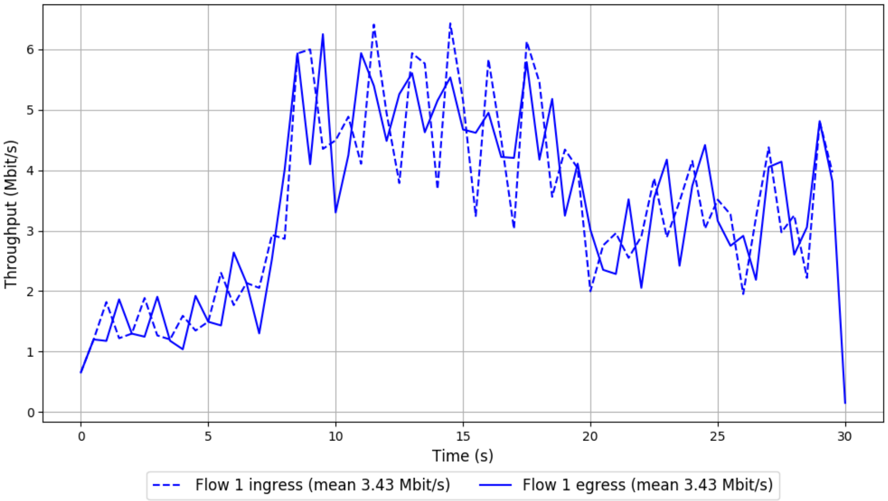
Run 9: Report of Sprout — Data Link

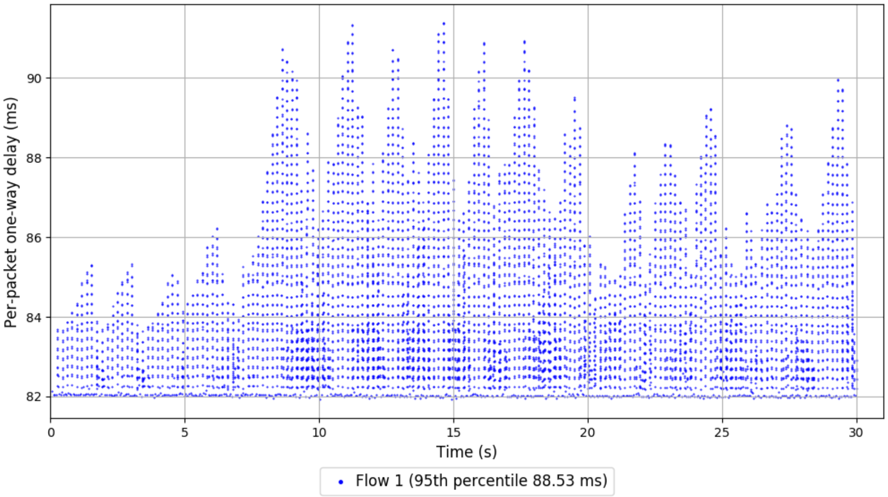




```
Run 10: Statistics of Sprout

Start at: 2018-02-20 04:28:27
End at: 2018-02-20 04:28:57
Local clock offset: -12.993 ms
Remote clock offset: -4.803 ms

# Below is generated by plot.py at 2018-02-20 05:01:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 88.525 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 88.525 ms
Loss rate: 0.00%
```

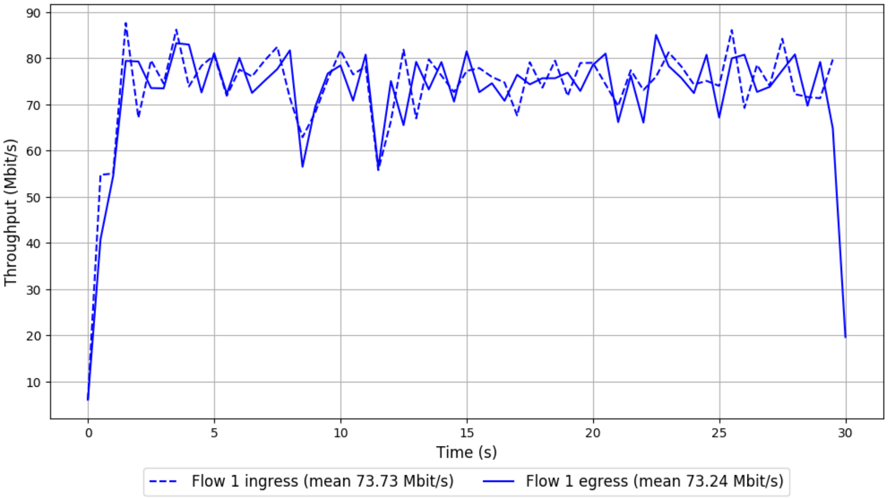
Run 10: Report of Sprout — Data Link

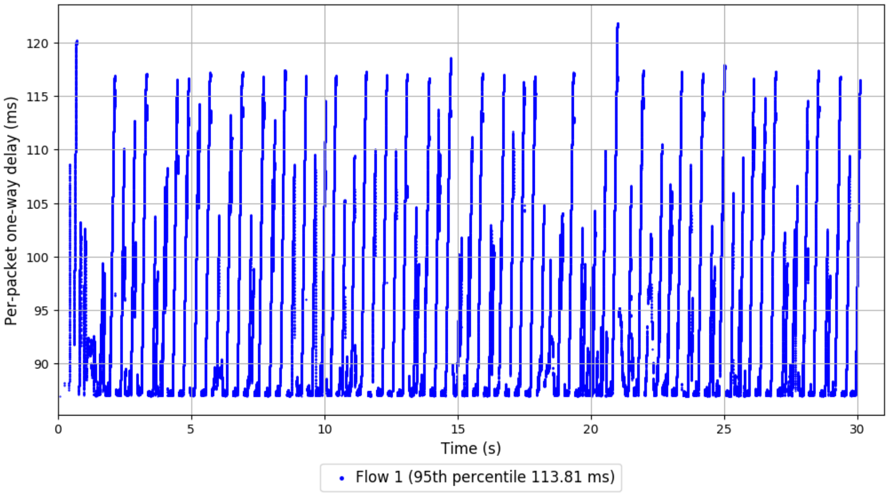




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-20 01:07:39
End at: 2018-02-20 01:08:09
Local clock offset: -3.118 ms
Remote clock offset: 4.016 ms

# Below is generated by plot.py at 2018-02-20 05:02:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.24 Mbit/s
95th percentile per-packet one-way delay: 113.814 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 73.24 Mbit/s
95th percentile per-packet one-way delay: 113.814 ms
Loss rate: 0.57%
```

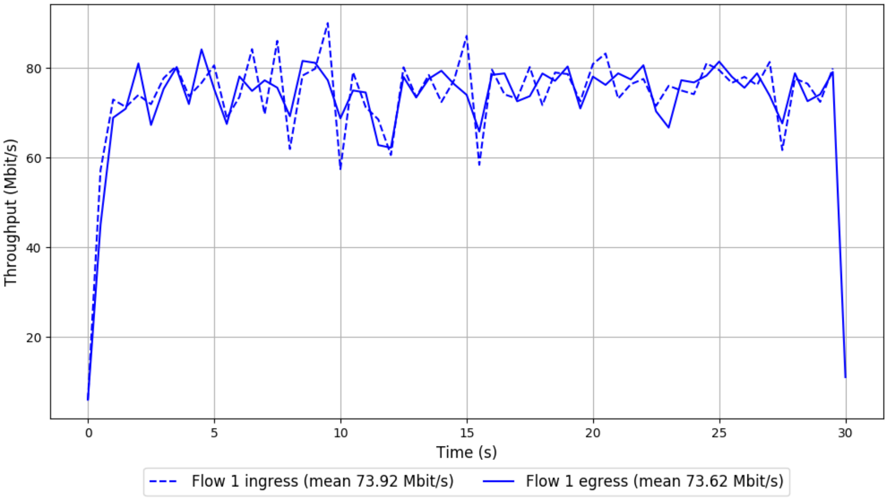
Run 1: Report of TaoVA-100x — Data Link

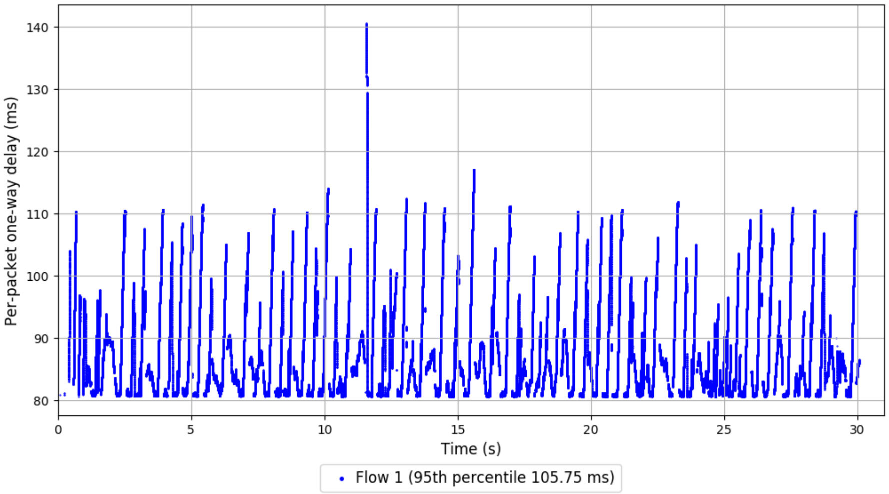




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-20 01:29:47
End at: 2018-02-20 01:30:17
Local clock offset: -6.674 ms
Remote clock offset: -0.601 ms

# Below is generated by plot.py at 2018-02-20 05:02:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 105.750 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 105.750 ms
Loss rate: 0.40%
```

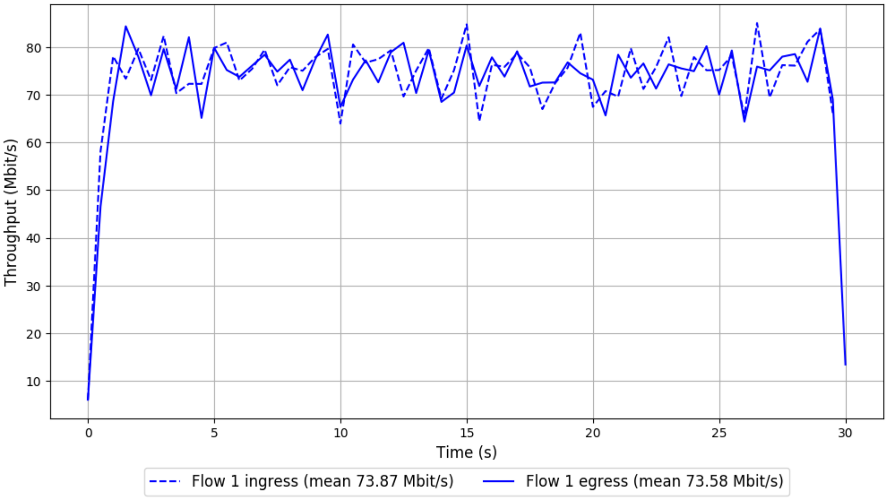
Run 2: Report of TaoVA-100x — Data Link

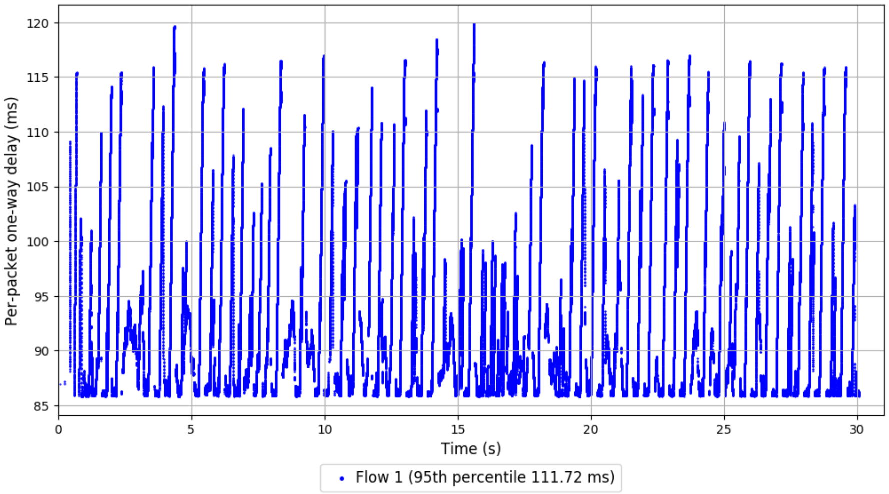




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-20 01:52:04
End at: 2018-02-20 01:52:34
Local clock offset: -8.342 ms
Remote clock offset: 4.819 ms

# Below is generated by plot.py at 2018-02-20 05:02:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.58 Mbit/s
95th percentile per-packet one-way delay: 111.715 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 73.58 Mbit/s
95th percentile per-packet one-way delay: 111.715 ms
Loss rate: 0.39%
```

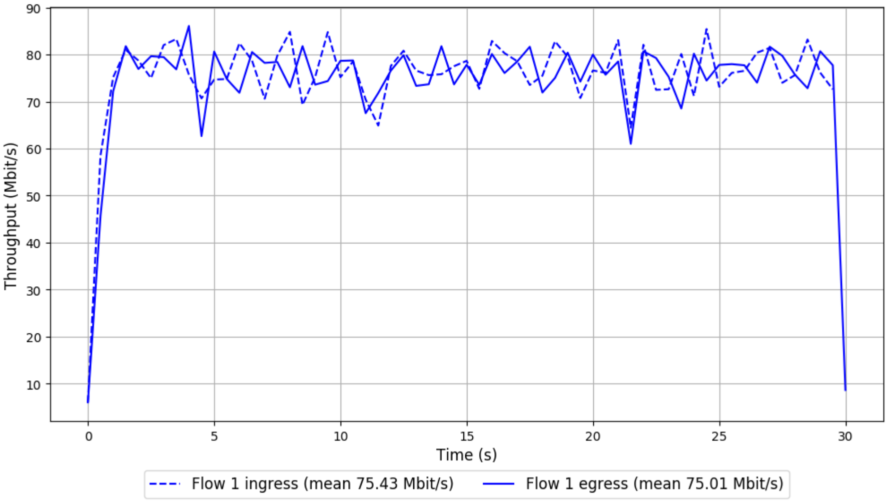
Run 3: Report of TaoVA-100x — Data Link

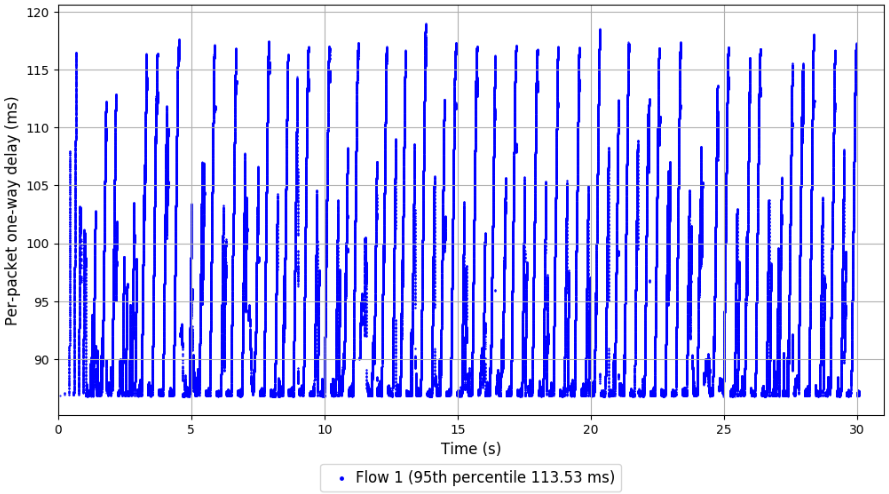




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-20 02:14:12
End at: 2018-02-20 02:14:42
Local clock offset: -8.158 ms
Remote clock offset: 6.116 ms

# Below is generated by plot.py at 2018-02-20 05:02:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.01 Mbit/s
95th percentile per-packet one-way delay: 113.535 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 75.01 Mbit/s
95th percentile per-packet one-way delay: 113.535 ms
Loss rate: 0.56%
```

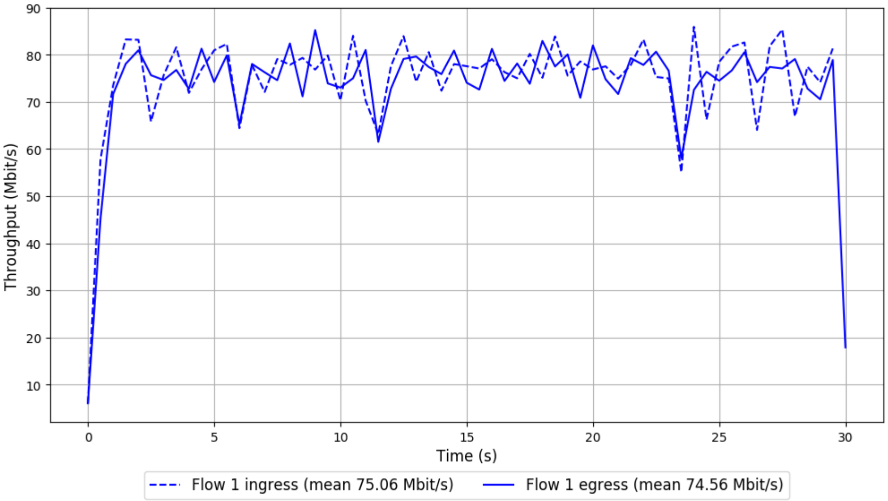
Run 4: Report of TaoVA-100x — Data Link

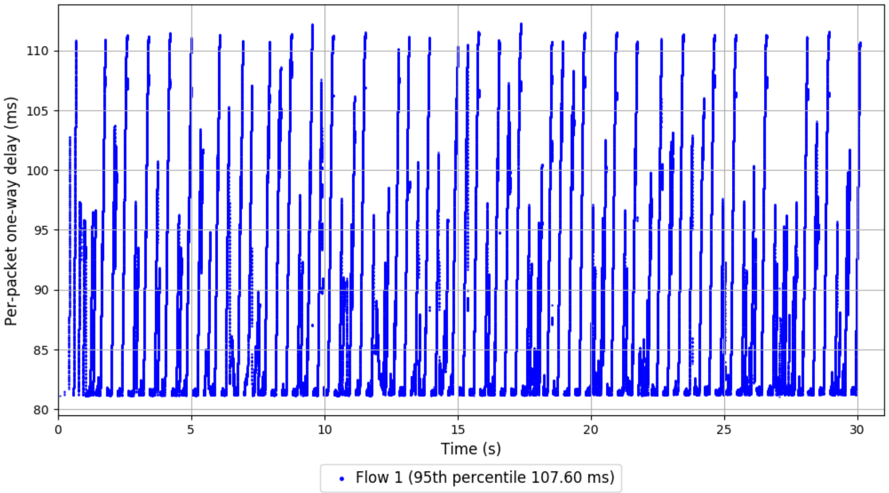




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-20 02:36:12
End at: 2018-02-20 02:36:42
Local clock offset: -5.165 ms
Remote clock offset: 1.11 ms

# Below is generated by plot.py at 2018-02-20 05:02:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 107.602 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 107.602 ms
Loss rate: 0.57%
```

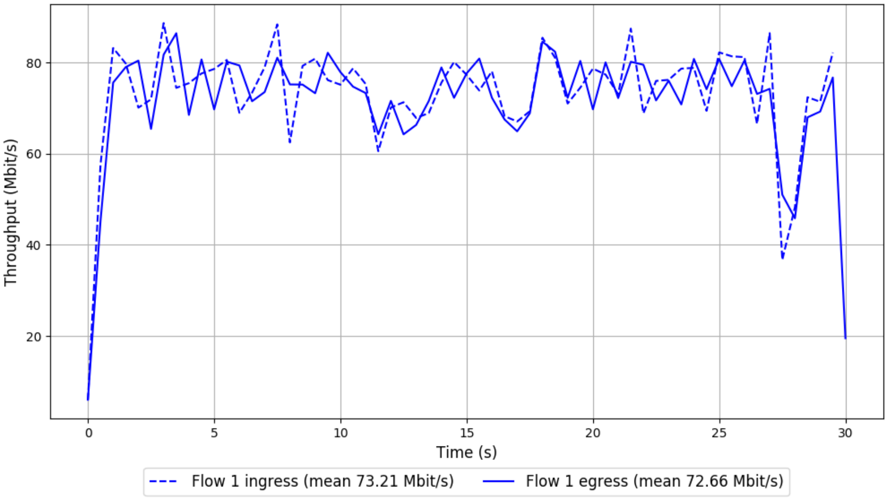
Run 5: Report of TaoVA-100x — Data Link

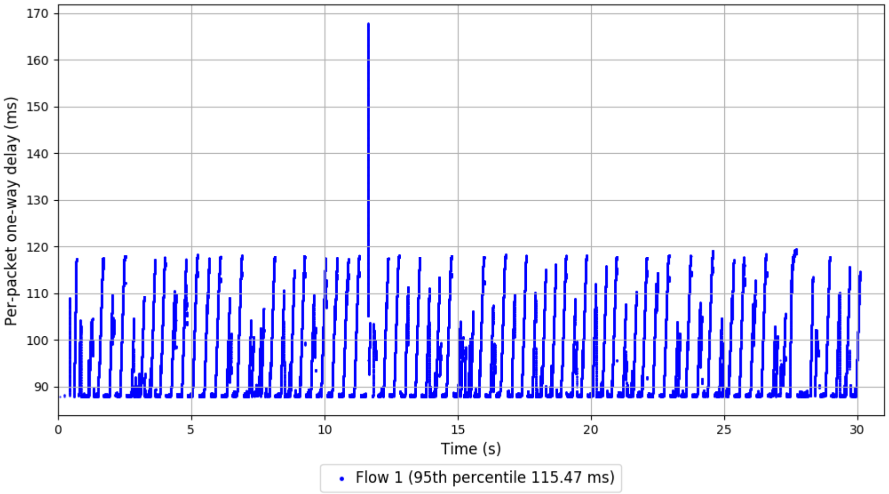




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-20 02:58:14
End at: 2018-02-20 02:58:44
Local clock offset: -2.99 ms
Remote clock offset: 8.24 ms

# Below is generated by plot.py at 2018-02-20 05:02:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 115.473 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 115.473 ms
Loss rate: 0.66%
```

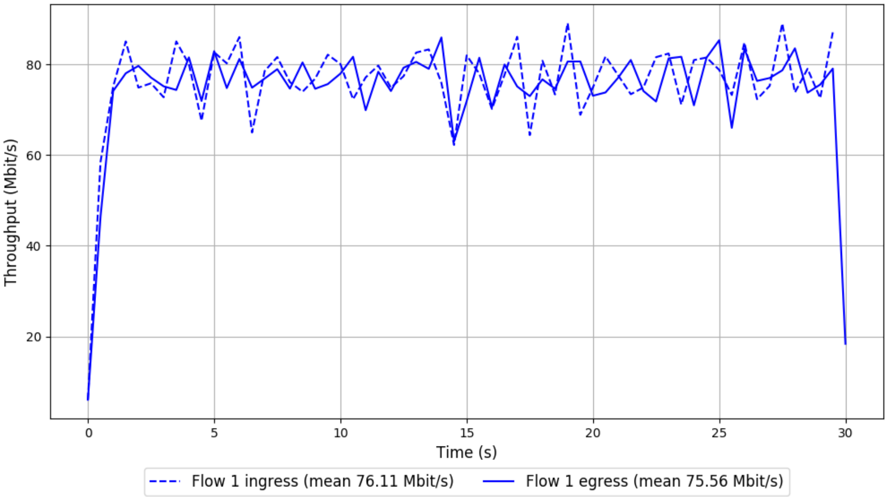
Run 6: Report of TaoVA-100x — Data Link

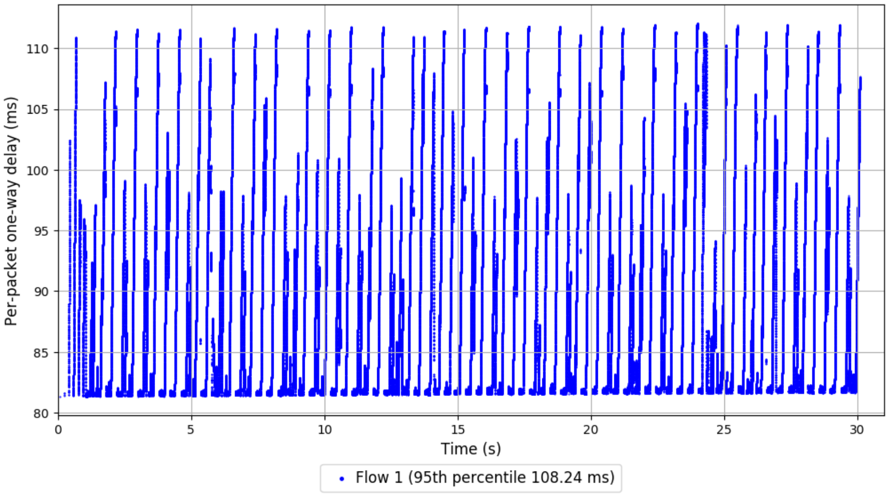




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-20 03:20:17
End at: 2018-02-20 03:20:47
Local clock offset: -7.747 ms
Remote clock offset: 1.422 ms

# Below is generated by plot.py at 2018-02-20 05:02:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.56 Mbit/s
95th percentile per-packet one-way delay: 108.244 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 75.56 Mbit/s
95th percentile per-packet one-way delay: 108.244 ms
Loss rate: 0.63%
```

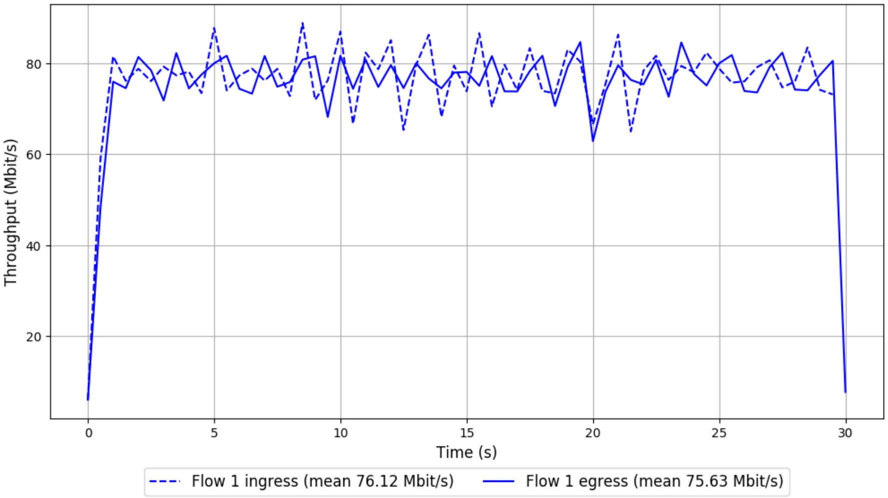
Run 7: Report of TaoVA-100x — Data Link

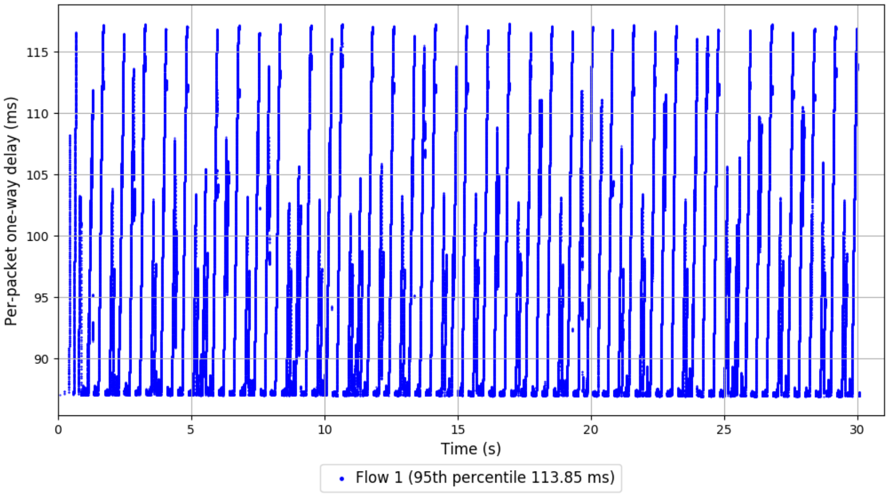




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-20 03:42:22
End at: 2018-02-20 03:42:52
Local clock offset: -13.887 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-02-20 05:03:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.63 Mbit/s
95th percentile per-packet one-way delay: 113.849 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 75.63 Mbit/s
95th percentile per-packet one-way delay: 113.849 ms
Loss rate: 0.64%
```

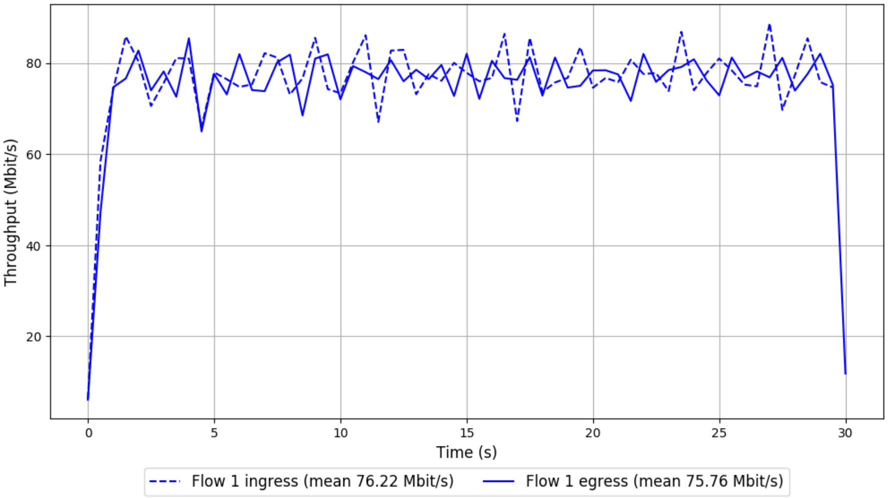
Run 8: Report of TaoVA-100x — Data Link

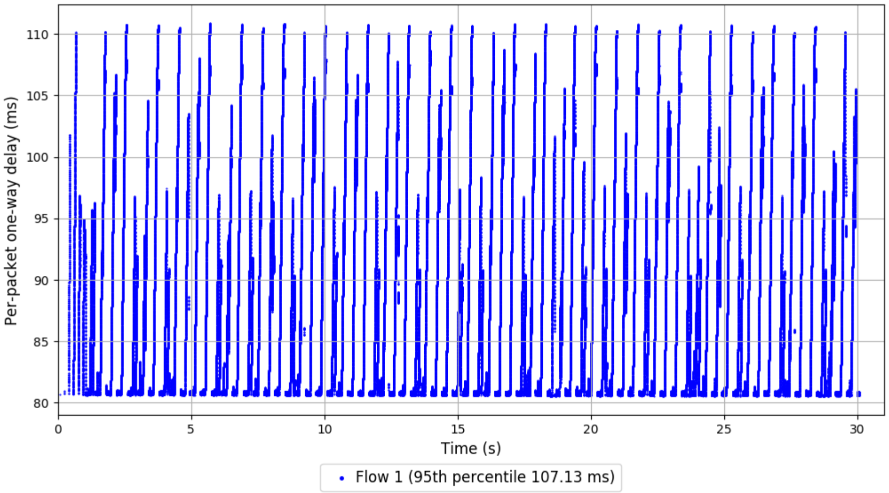




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-20 04:04:44
End at: 2018-02-20 04:05:14
Local clock offset: -18.883 ms
Remote clock offset: -5.496 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.76 Mbit/s
95th percentile per-packet one-way delay: 107.129 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 75.76 Mbit/s
95th percentile per-packet one-way delay: 107.129 ms
Loss rate: 0.60%
```

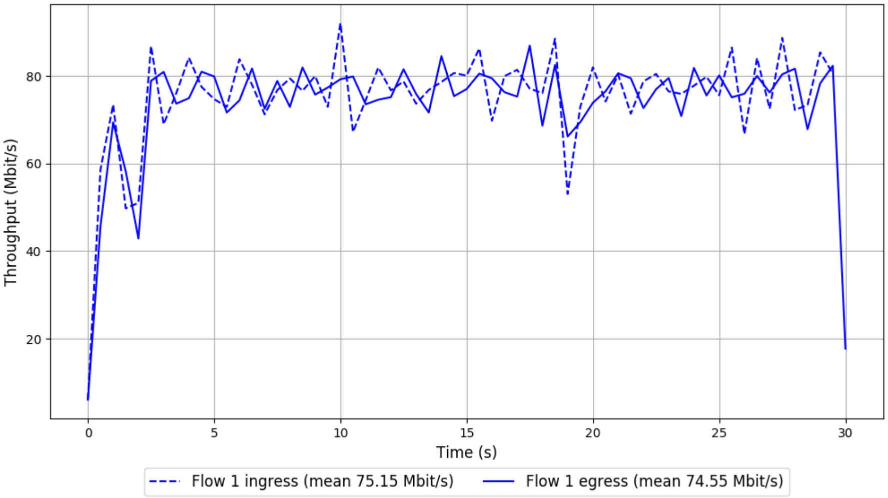
Run 9: Report of TaoVA-100x — Data Link

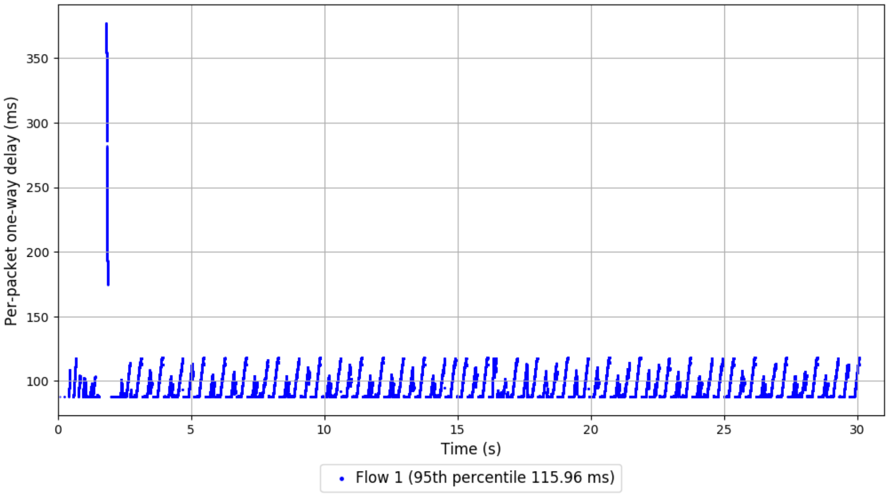




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-20 04:27:11
End at: 2018-02-20 04:27:41
Local clock offset: -13.084 ms
Remote clock offset: 0.732 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.55 Mbit/s
95th percentile per-packet one-way delay: 115.964 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 74.55 Mbit/s
95th percentile per-packet one-way delay: 115.964 ms
Loss rate: 0.71%
```

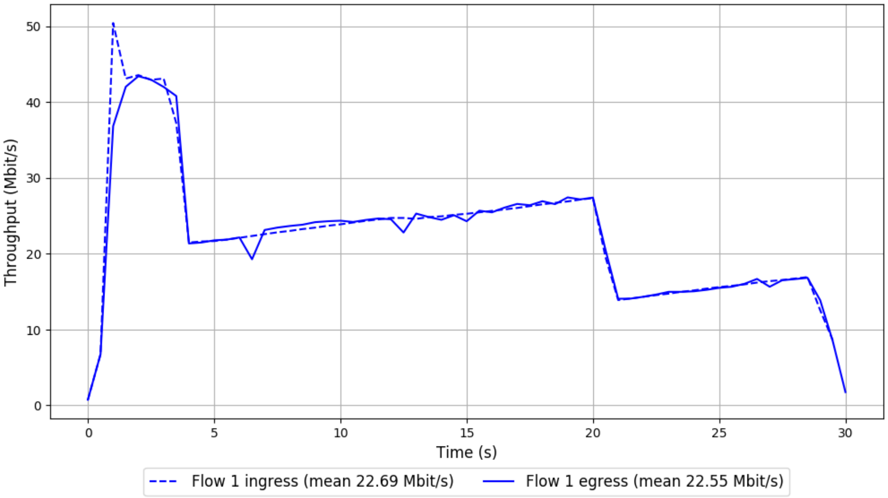
Run 10: Report of TaoVA-100x — Data Link

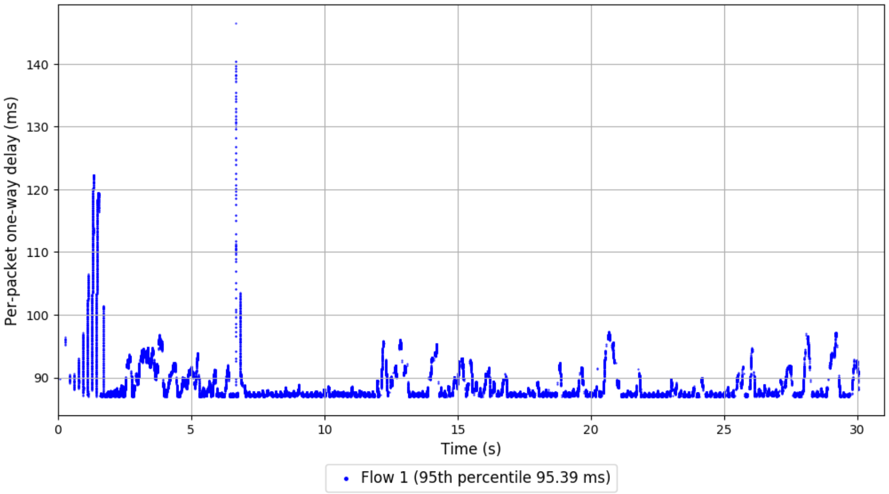




```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-20 01:05:18
End at: 2018-02-20 01:05:48
Local clock offset: -3.236 ms
Remote clock offset: 3.773 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.55 Mbit/s
95th percentile per-packet one-way delay: 95.391 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 22.55 Mbit/s
95th percentile per-packet one-way delay: 95.391 ms
Loss rate: 0.64%
```

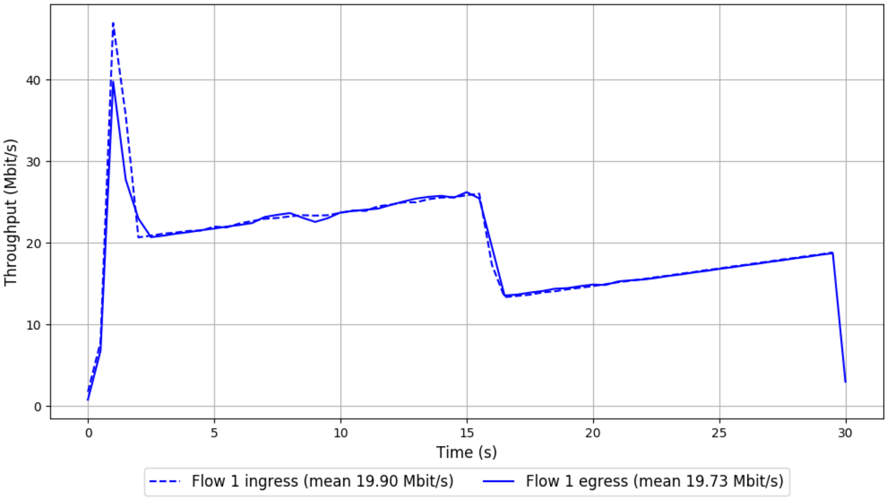
Run 1: Report of TCP Vegas — Data Link

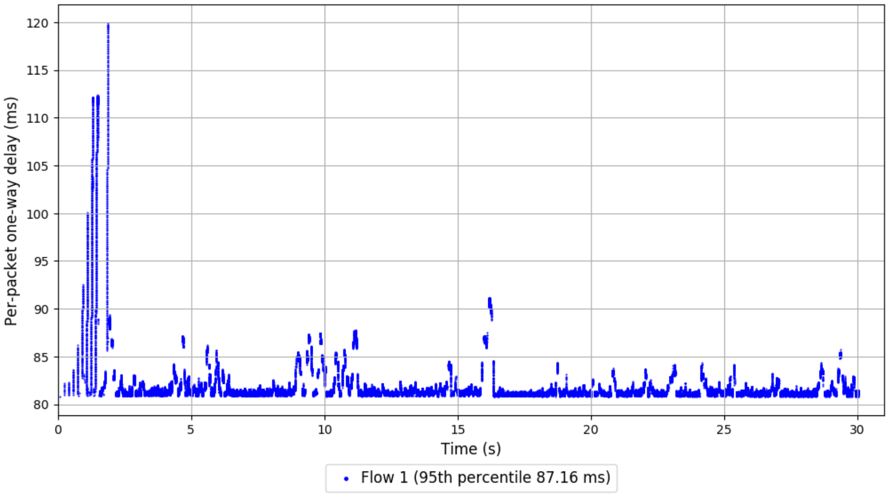




```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-20 01:27:26
End at: 2018-02-20 01:27:56
Local clock offset: -6.237 ms
Remote clock offset: -0.692 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.73 Mbit/s
95th percentile per-packet one-way delay: 87.155 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 19.73 Mbit/s
95th percentile per-packet one-way delay: 87.155 ms
Loss rate: 0.85%
```

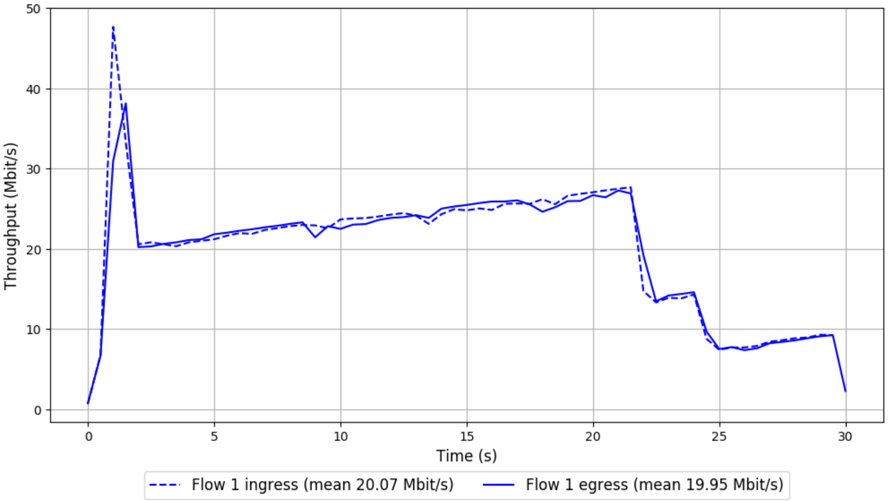
Run 2: Report of TCP Vegas — Data Link

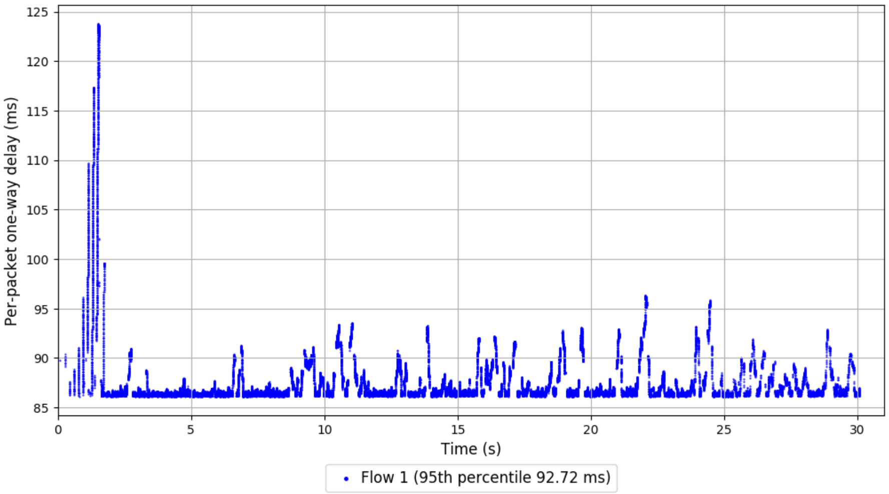




```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-20 01:49:43
End at: 2018-02-20 01:50:13
Local clock offset: -8.311 ms
Remote clock offset: 4.808 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.95 Mbit/s
95th percentile per-packet one-way delay: 92.724 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 19.95 Mbit/s
95th percentile per-packet one-way delay: 92.724 ms
Loss rate: 0.61%
```

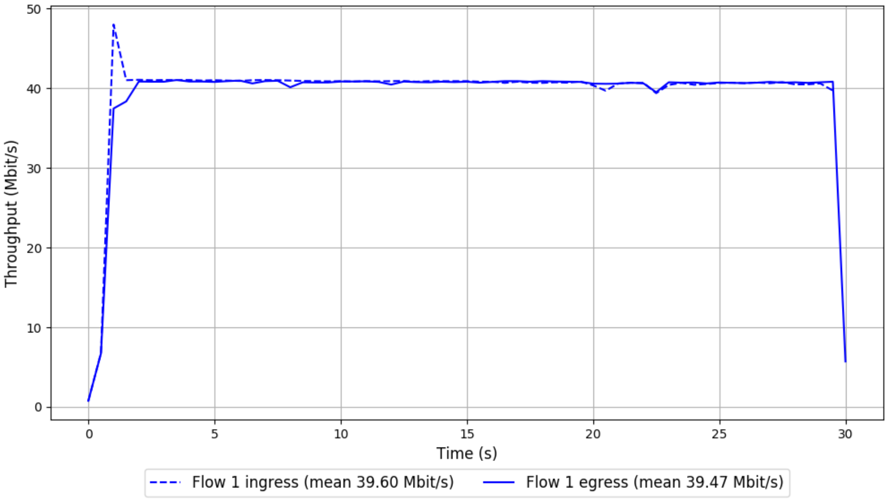
Run 3: Report of TCP Vegas — Data Link

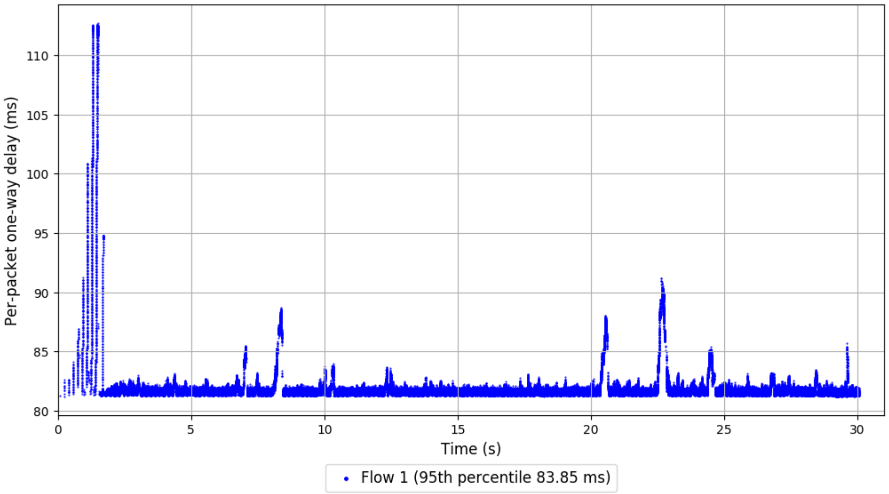




```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-20 02:11:50
End at: 2018-02-20 02:12:20
Local clock offset: -8.146 ms
Remote clock offset: 0.513 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 83.846 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 83.846 ms
Loss rate: 0.31%
```

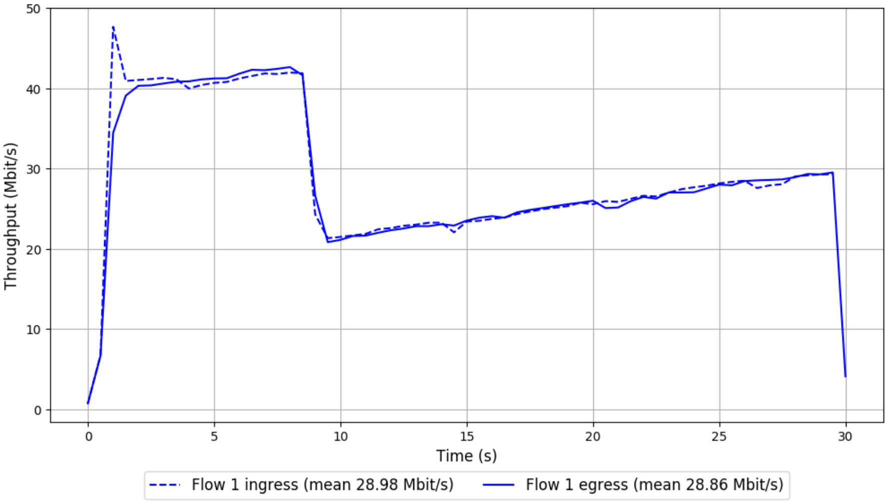
Run 4: Report of TCP Vegas — Data Link

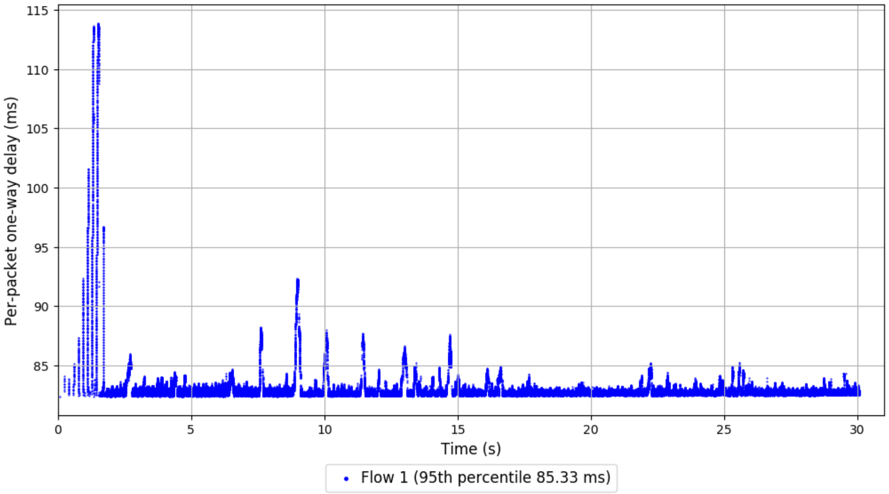




```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-20 02:33:51
End at: 2018-02-20 02:34:21
Local clock offset: -5.613 ms
Remote clock offset: 1.829 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.86 Mbit/s
95th percentile per-packet one-way delay: 85.333 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 28.86 Mbit/s
95th percentile per-packet one-way delay: 85.333 ms
Loss rate: 0.42%
```

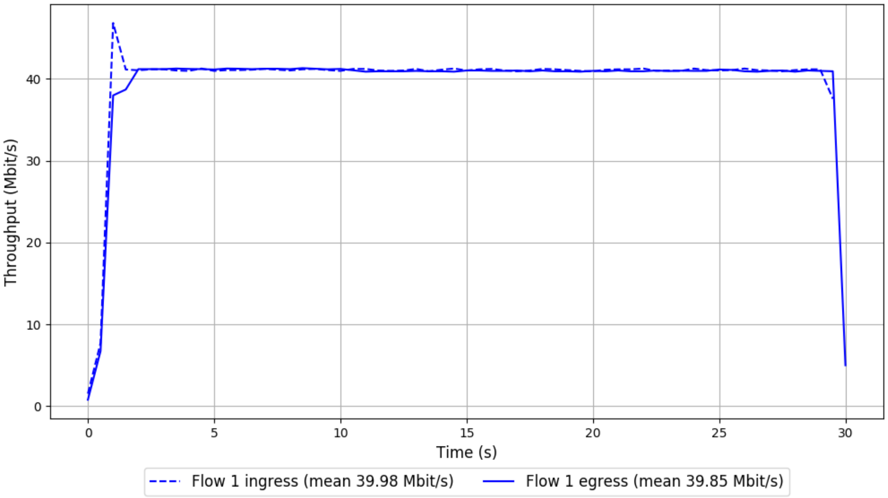
Run 5: Report of TCP Vegas — Data Link

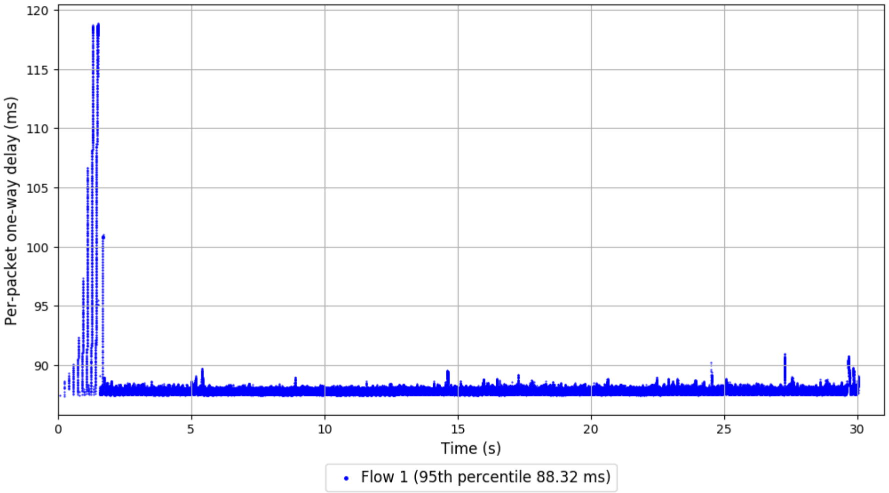




```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-20 02:55:52
End at: 2018-02-20 02:56:22
Local clock offset: -3.164 ms
Remote clock offset: 7.212 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 88.320 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 39.85 Mbit/s
95th percentile per-packet one-way delay: 88.320 ms
Loss rate: 0.31%
```

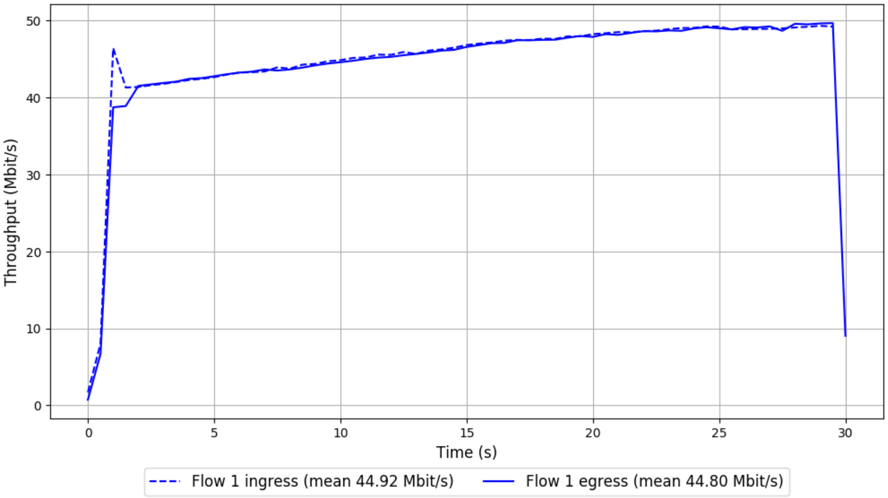
Run 6: Report of TCP Vegas — Data Link

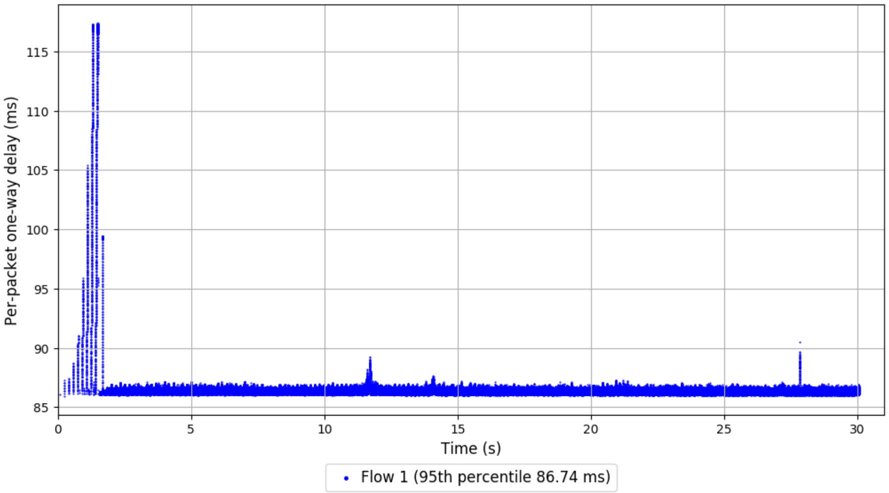




```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-20 03:17:56
End at: 2018-02-20 03:18:26
Local clock offset: -7.566 ms
Remote clock offset: 7.033 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 86.744 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 86.744 ms
Loss rate: 0.27%
```

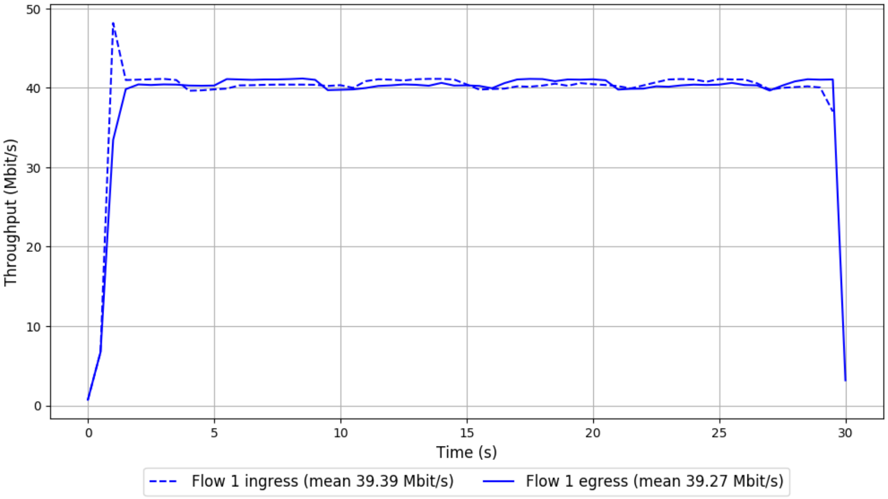
Run 7: Report of TCP Vegas — Data Link

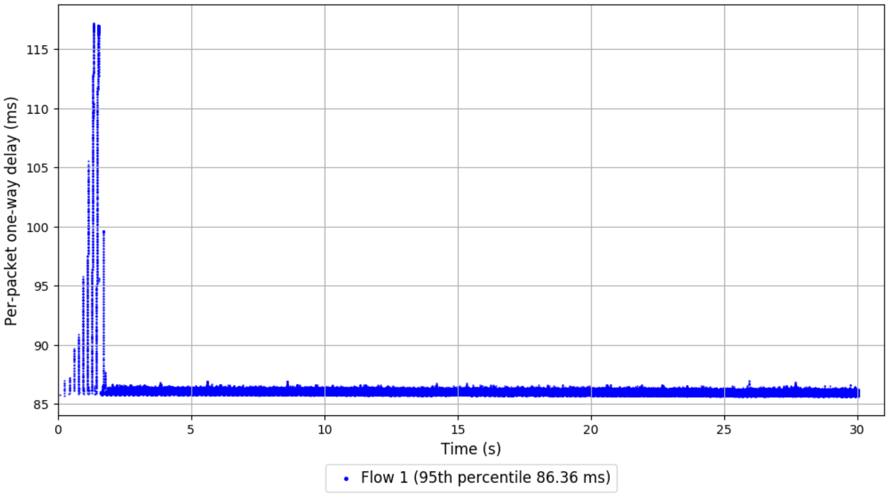




```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-20 03:40:00
End at: 2018-02-20 03:40:30
Local clock offset: -12.797 ms
Remote clock offset: -0.646 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 86.363 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 86.363 ms
Loss rate: 0.32%
```

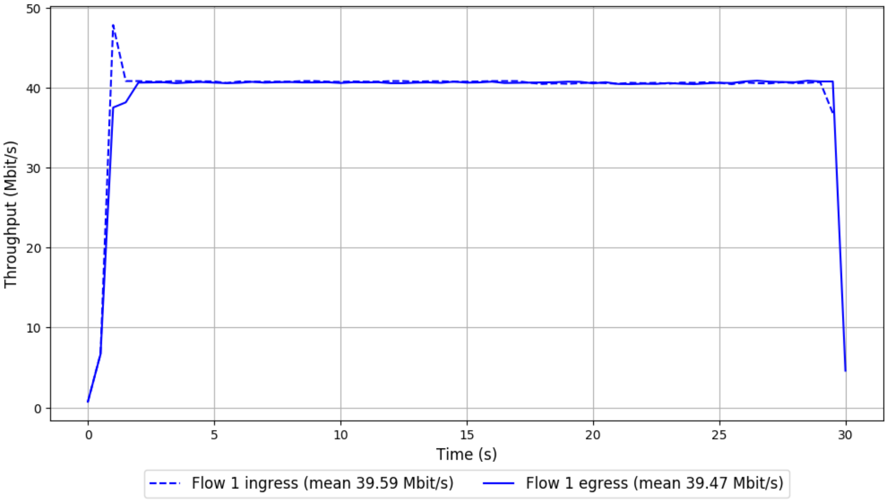
Run 8: Report of TCP Vegas — Data Link

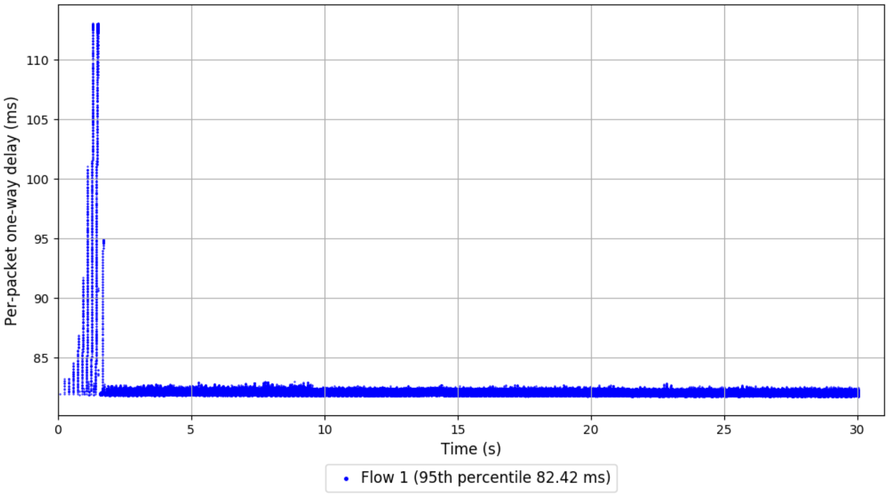




```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-20 04:02:22
End at: 2018-02-20 04:02:53
Local clock offset: -18.52 ms
Remote clock offset: -4.731 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 82.420 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 82.420 ms
Loss rate: 0.30%
```

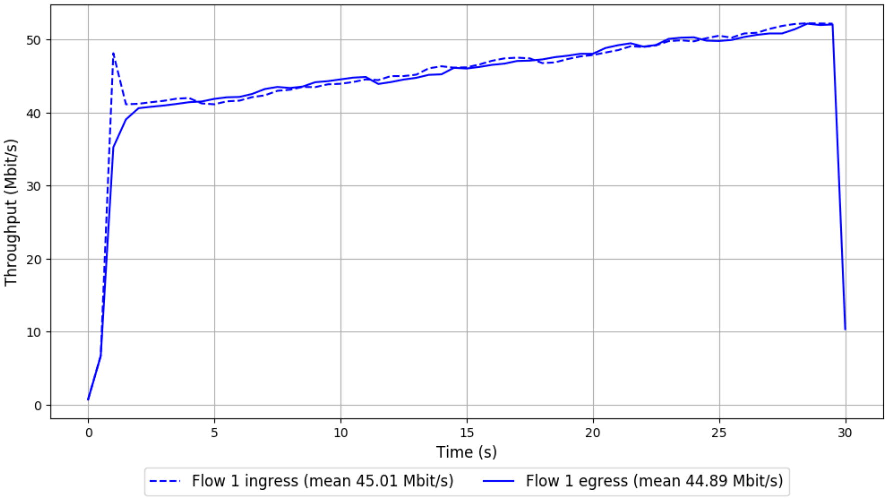
Run 9: Report of TCP Vegas — Data Link

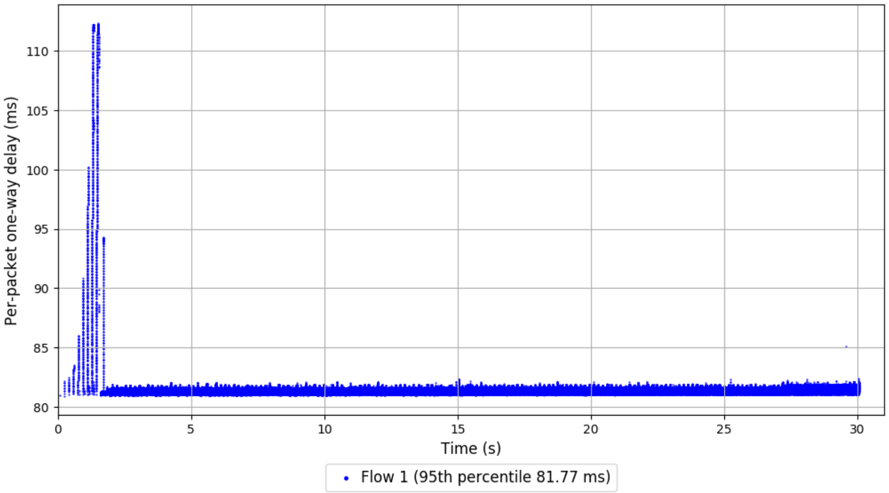




```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-20 04:24:49
End at: 2018-02-20 04:25:19
Local clock offset: -13.256 ms
Remote clock offset: -5.701 ms

# Below is generated by plot.py at 2018-02-20 05:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.89 Mbit/s
95th percentile per-packet one-way delay: 81.766 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 44.89 Mbit/s
95th percentile per-packet one-way delay: 81.766 ms
Loss rate: 0.28%
```

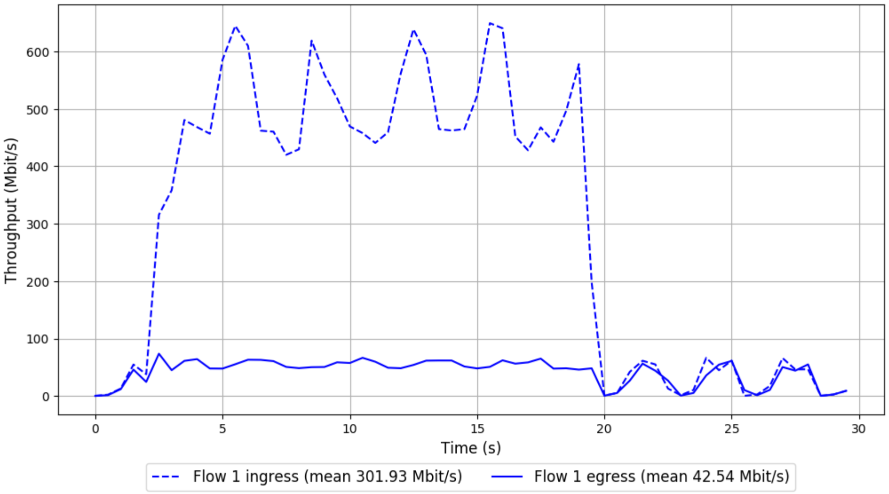
Run 10: Report of TCP Vegas — Data Link

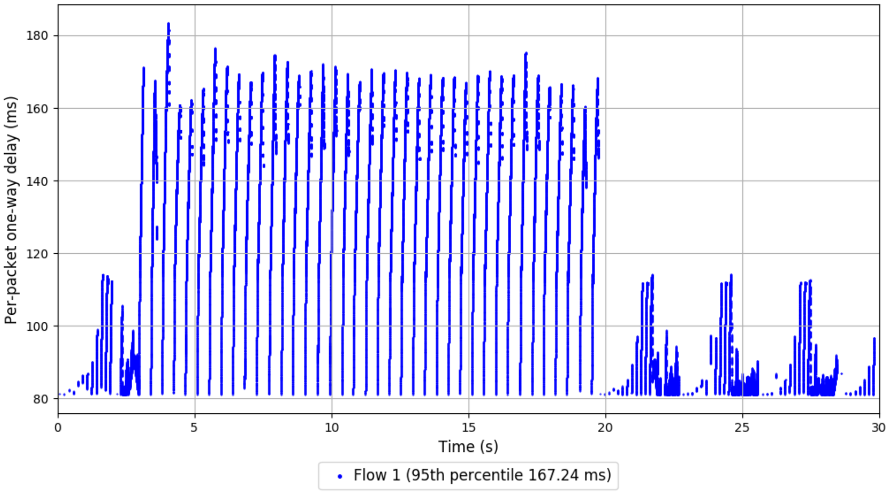




```
Run 1: Statistics of Verus

Start at: 2018-02-20 00:58:02
End at: 2018-02-20 00:58:32
Local clock offset: -3.702 ms
Remote clock offset: -2.348 ms

# Below is generated by plot.py at 2018-02-20 05:05:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.54 Mbit/s
95th percentile per-packet one-way delay: 167.235 ms
Loss rate: 85.90%
-- Flow 1:
Average throughput: 42.54 Mbit/s
95th percentile per-packet one-way delay: 167.235 ms
Loss rate: 85.90%
```

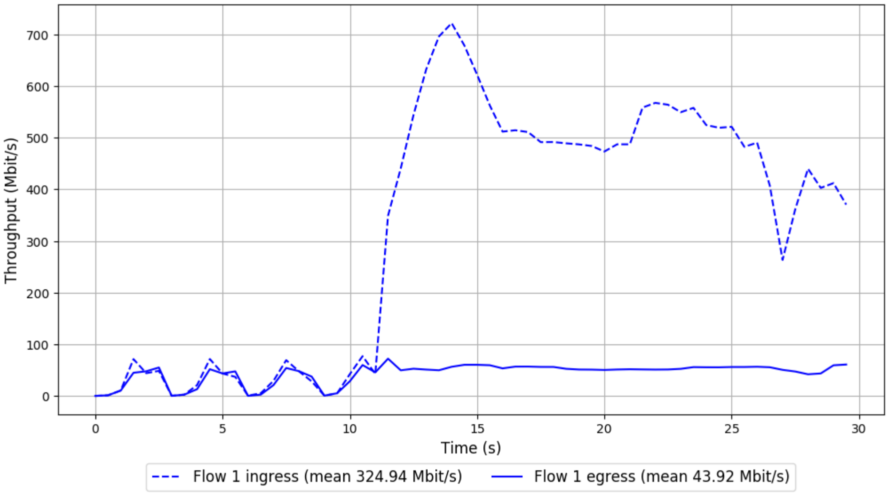
Run 1: Report of Verus — Data Link

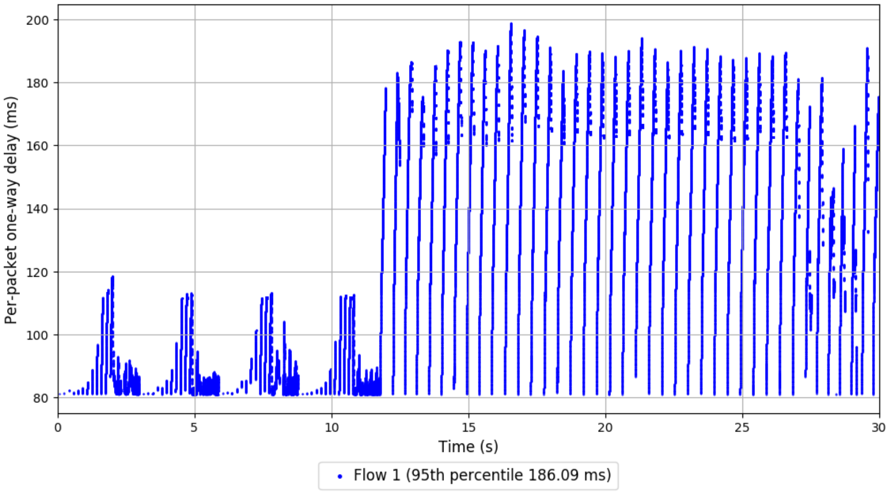




```
Run 2: Statistics of Verus

Start at: 2018-02-20 01:20:03
End at: 2018-02-20 01:20:33
Local clock offset: -4.158 ms
Remote clock offset: -0.913 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 186.095 ms
Loss rate: 86.44%
-- Flow 1:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 186.095 ms
Loss rate: 86.44%
```

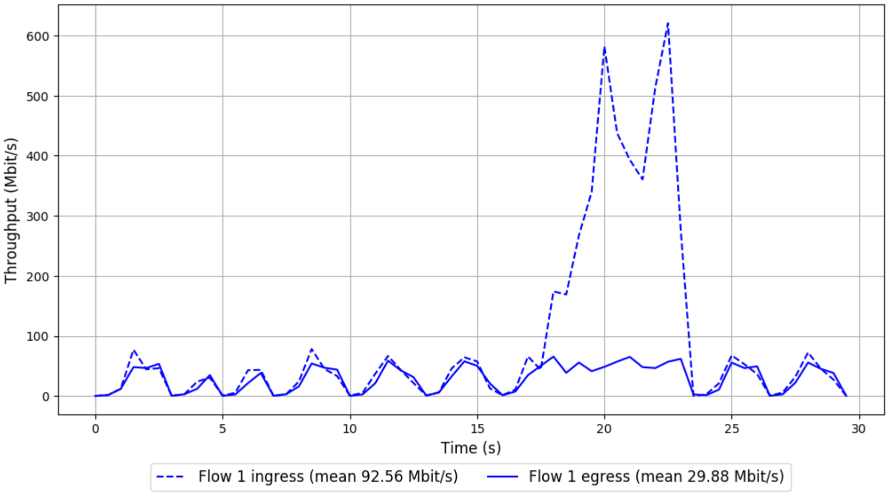
Run 2: Report of Verus — Data Link

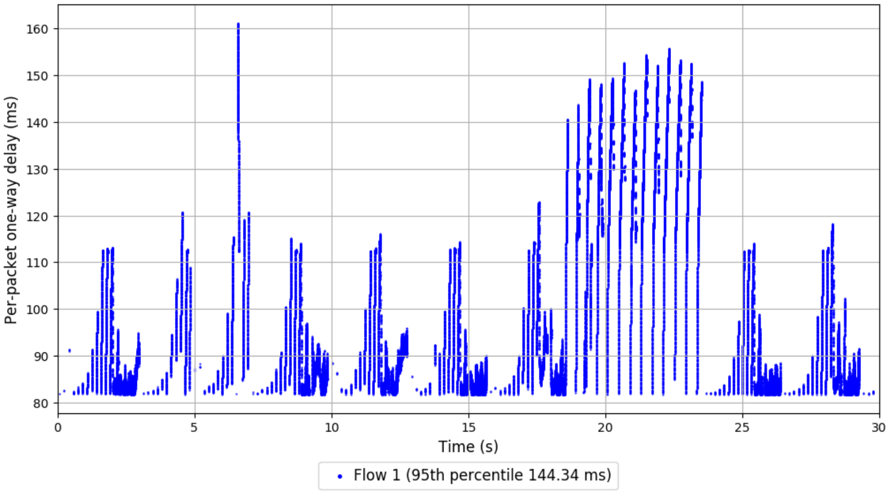




```
Run 3: Statistics of Verus

Start at: 2018-02-20 01:42:24
End at: 2018-02-20 01:42:54
Local clock offset: -7.872 ms
Remote clock offset: 0.492 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 144.335 ms
Loss rate: 67.72%
-- Flow 1:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 144.335 ms
Loss rate: 67.72%
```

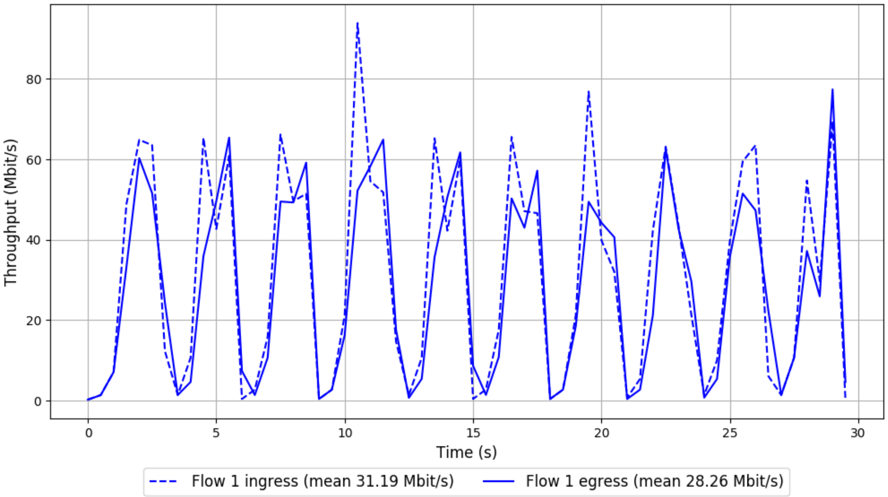
Run 3: Report of Verus — Data Link

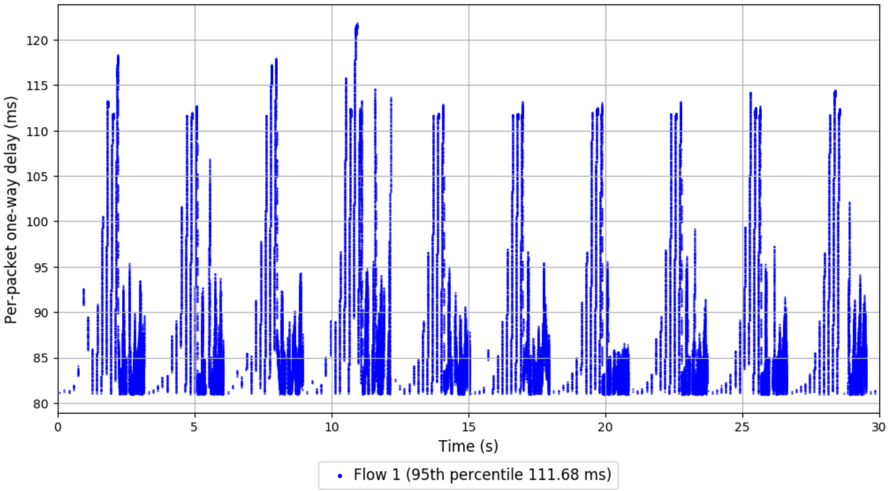




```
Run 4: Statistics of Verus

Start at: 2018-02-20 02:04:31
End at: 2018-02-20 02:05:02
Local clock offset: -8.021 ms
Remote clock offset: 0.284 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 111.679 ms
Loss rate: 9.39%
-- Flow 1:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 111.679 ms
Loss rate: 9.39%
```

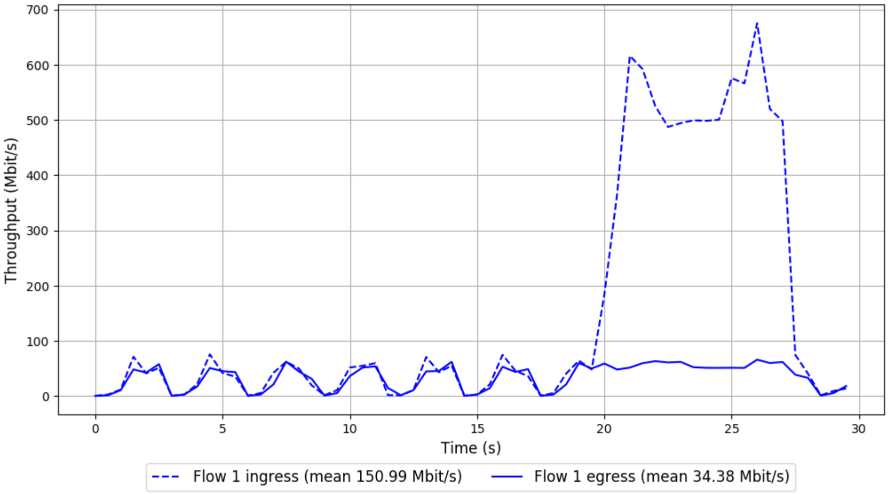
Run 4: Report of Verus — Data Link

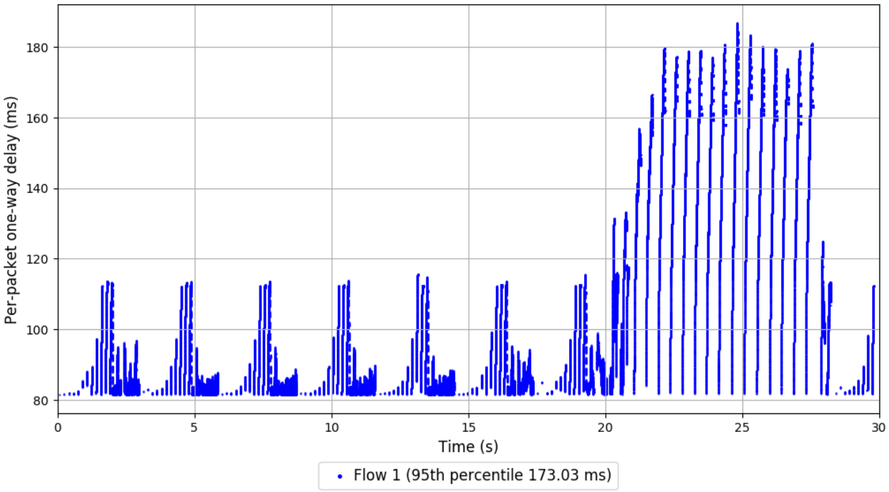




```
Run 5: Statistics of Verus

Start at: 2018-02-20 02:26:37
End at: 2018-02-20 02:27:07
Local clock offset: -7.915 ms
Remote clock offset: 0.867 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 173.034 ms
Loss rate: 77.21%
-- Flow 1:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 173.034 ms
Loss rate: 77.21%
```

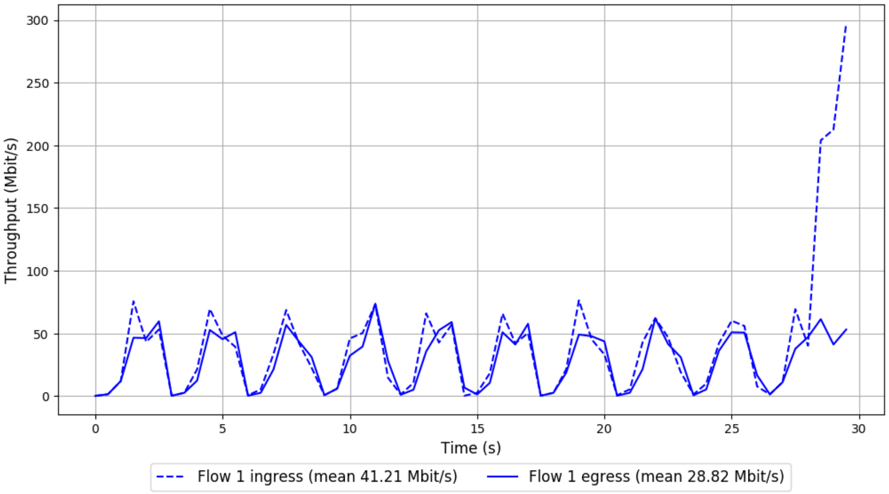
Run 5: Report of Verus — Data Link

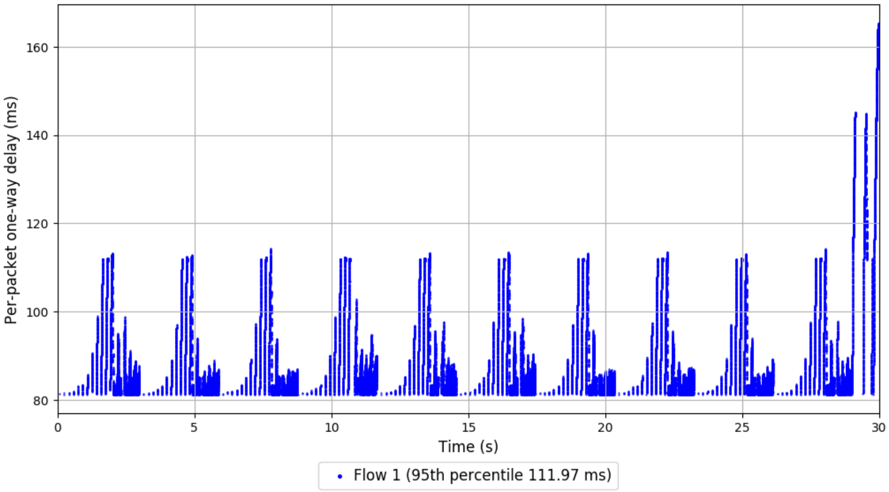




```
Run 6: Statistics of Verus

Start at: 2018-02-20 02:48:38
End at: 2018-02-20 02:49:08
Local clock offset: -3.603 ms
Remote clock offset: 1.401 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 111.973 ms
Loss rate: 29.88%
-- Flow 1:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 111.973 ms
Loss rate: 29.88%
```

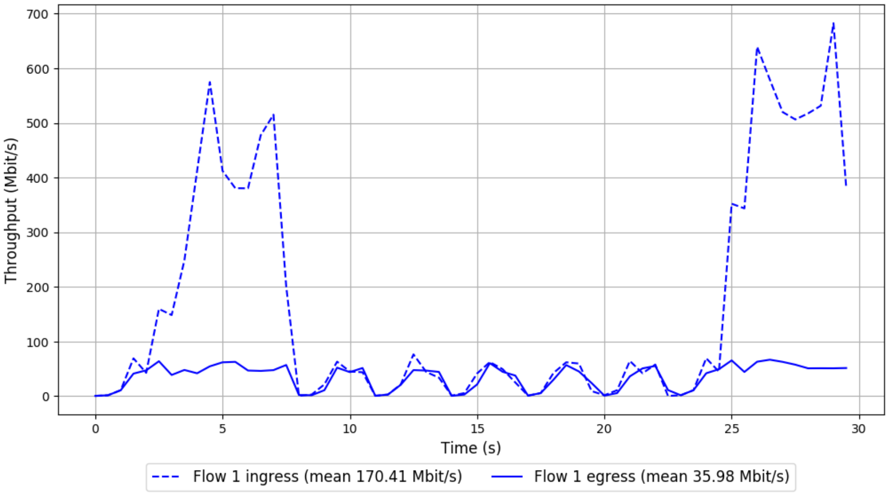
Run 6: Report of Verus — Data Link

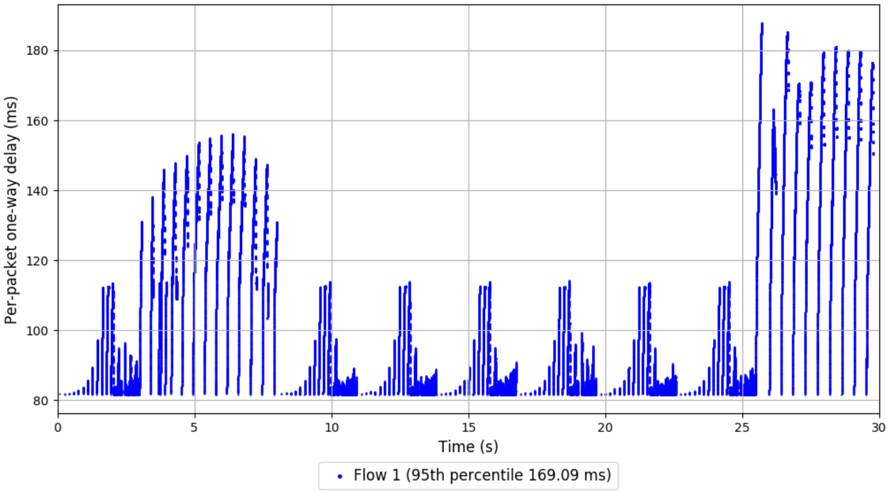




```
Run 7: Statistics of Verus

Start at: 2018-02-20 03:10:40
End at: 2018-02-20 03:11:10
Local clock offset: -6.768 ms
Remote clock offset: 1.982 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 169.091 ms
Loss rate: 78.84%
-- Flow 1:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 169.091 ms
Loss rate: 78.84%
```

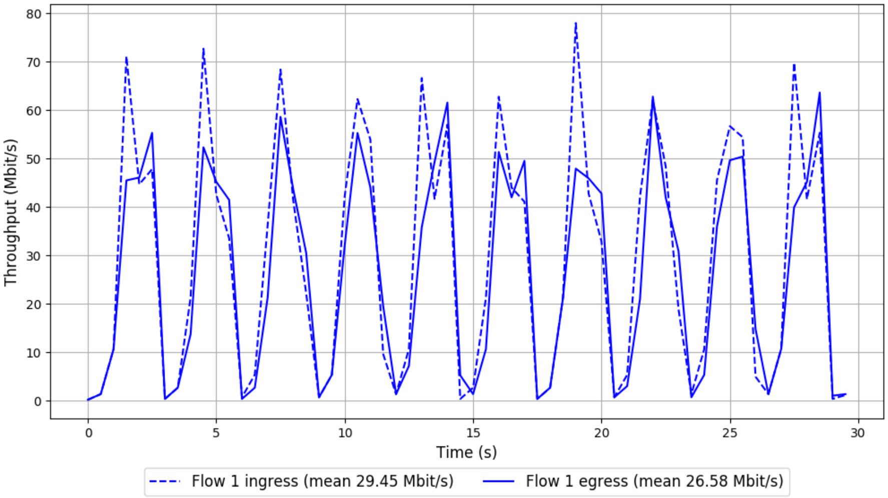
Run 7: Report of Verus — Data Link

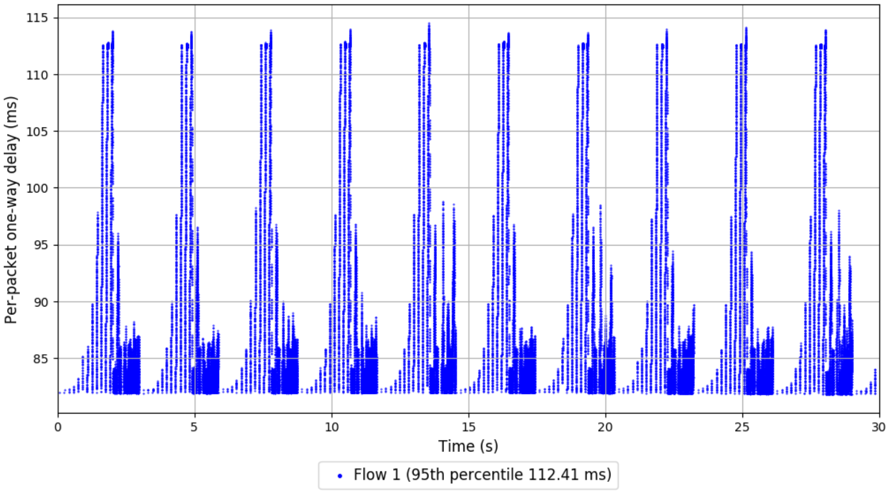




```
Run 8: Statistics of Verus

Start at: 2018-02-20 03:32:45
End at: 2018-02-20 03:33:15
Local clock offset: -8.3 ms
Remote clock offset: -3.135 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 112.408 ms
Loss rate: 9.73%
-- Flow 1:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 112.408 ms
Loss rate: 9.73%
```

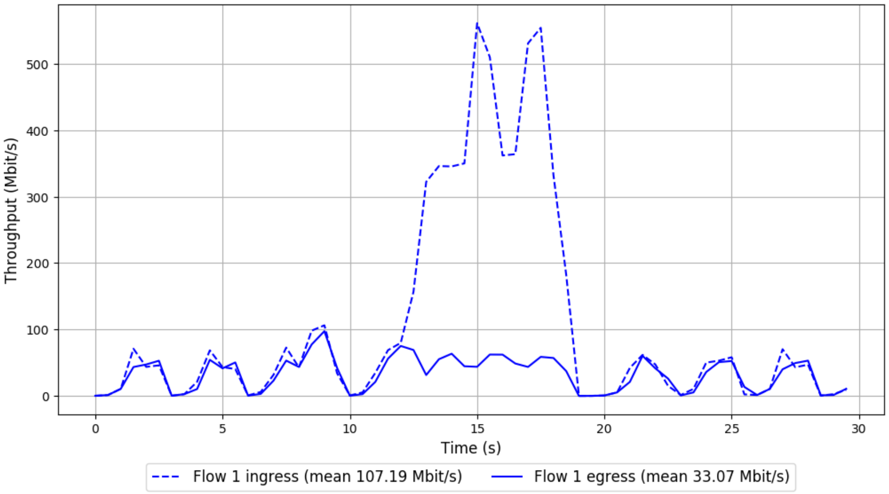
Run 8: Report of Verus — Data Link

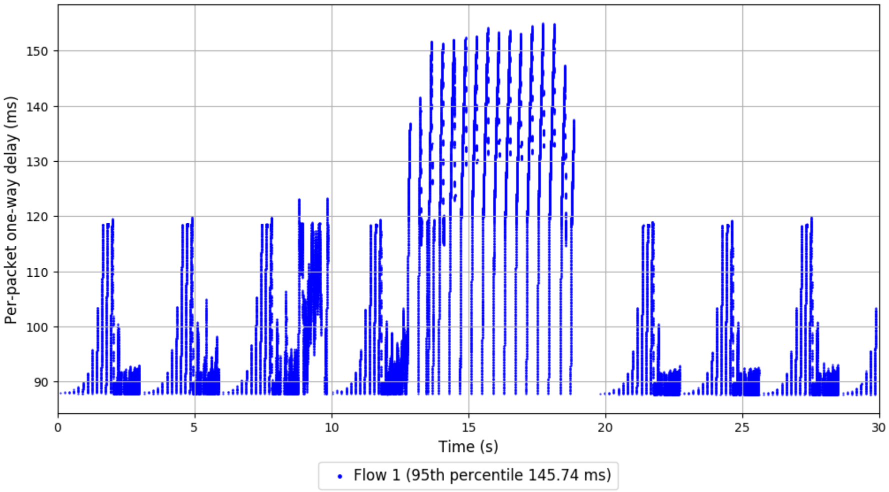




```
Run 9: Statistics of Verus

Start at: 2018-02-20 03:55:08
End at: 2018-02-20 03:55:38
Local clock offset: -17.298 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.07 Mbit/s
95th percentile per-packet one-way delay: 145.744 ms
Loss rate: 69.13%
-- Flow 1:
Average throughput: 33.07 Mbit/s
95th percentile per-packet one-way delay: 145.744 ms
Loss rate: 69.13%
```

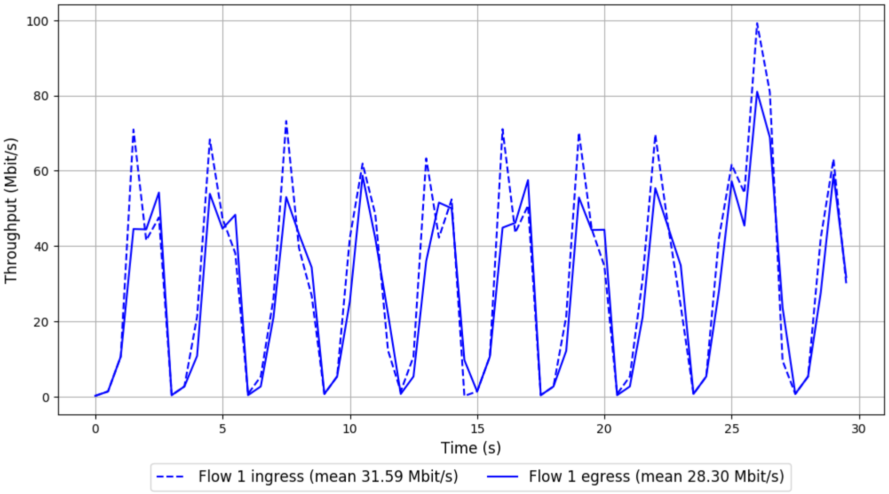
Run 9: Report of Verus — Data Link

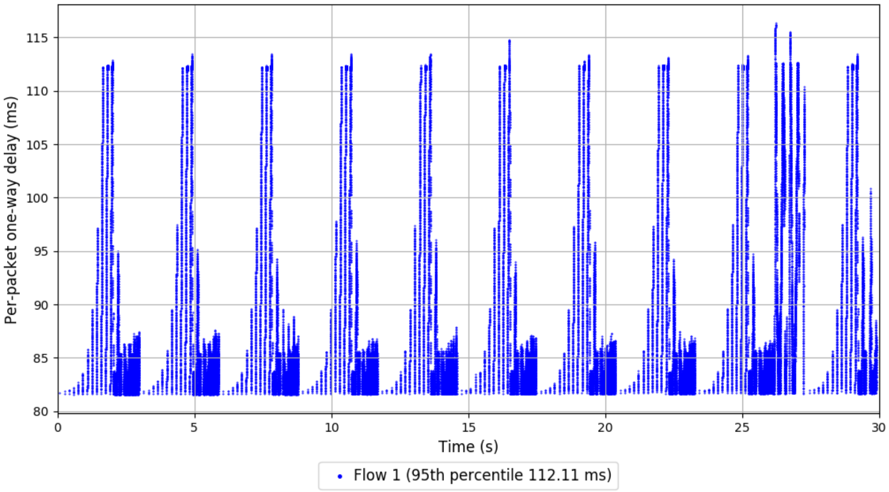




```
Run 10: Statistics of Verus

Start at: 2018-02-20 04:17:35
End at: 2018-02-20 04:18:05
Local clock offset: -14.512 ms
Remote clock offset: -5.553 ms

# Below is generated by plot.py at 2018-02-20 05:05:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.30 Mbit/s
95th percentile per-packet one-way delay: 112.107 ms
Loss rate: 10.39%
-- Flow 1:
Average throughput: 28.30 Mbit/s
95th percentile per-packet one-way delay: 112.107 ms
Loss rate: 10.39%
```

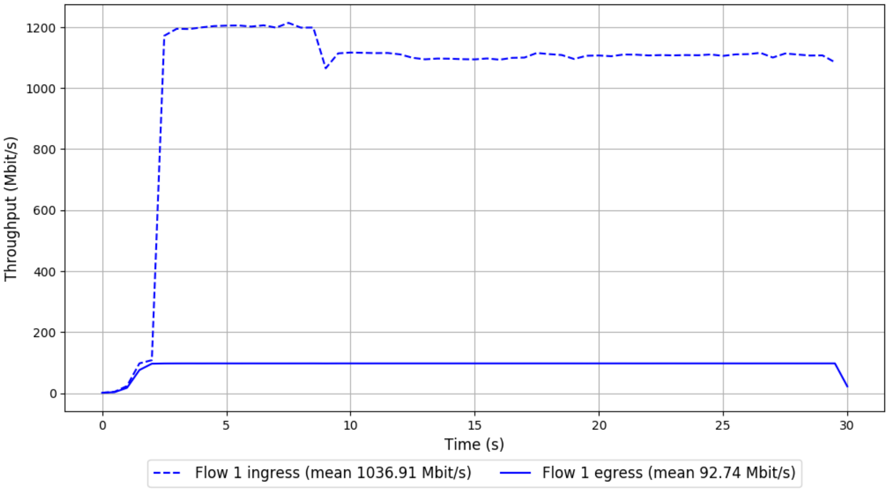
Run 10: Report of Verus — Data Link

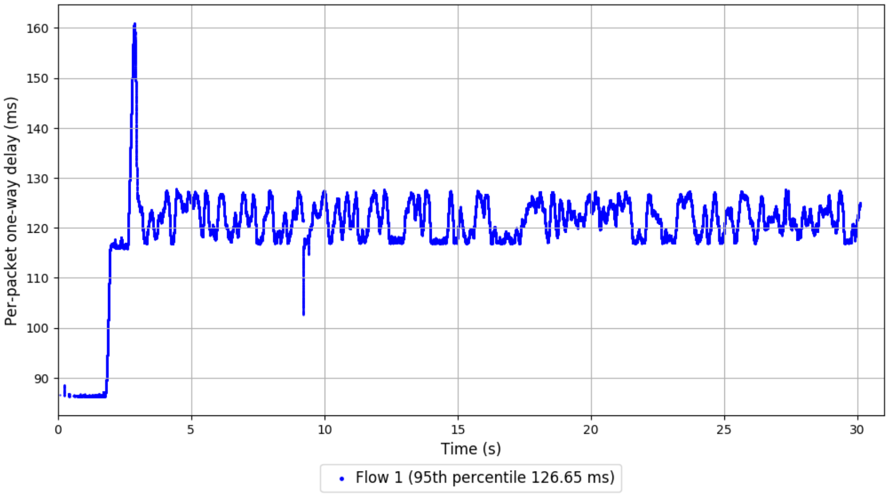




```
Run 1: Statistics of Copa

Start at: 2018-02-20 00:48:57
End at: 2018-02-20 00:49:27
Local clock offset: -4.885 ms
Remote clock offset: 2.342 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 126.648 ms
Loss rate: 91.04%
-- Flow 1:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 126.648 ms
Loss rate: 91.04%
```

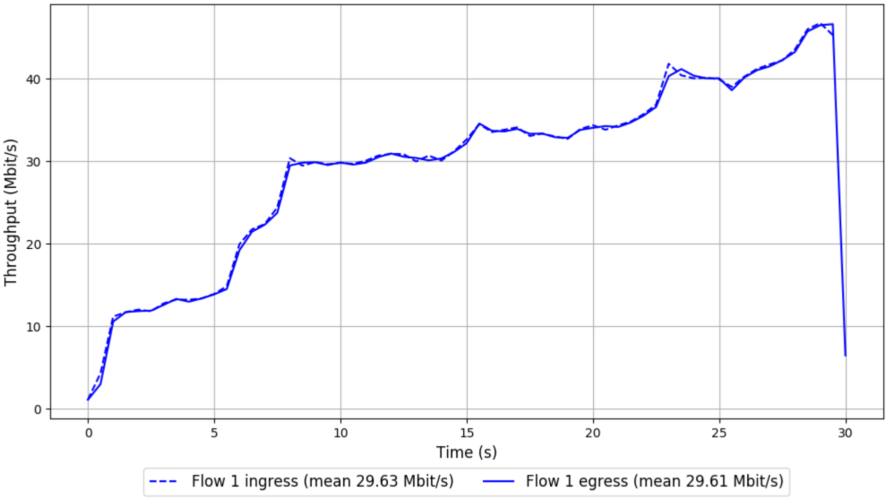
Run 1: Report of Copa — Data Link

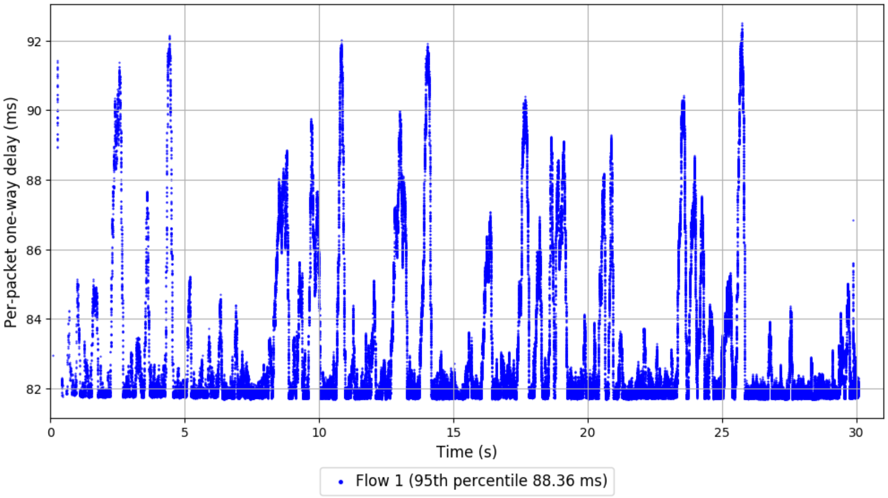




```
Run 2: Statistics of Copa

Start at: 2018-02-20 01:11:22
End at: 2018-02-20 01:11:52
Local clock offset: -2.961 ms
Remote clock offset: -0.655 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 88.363 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 88.363 ms
Loss rate: 0.07%
```

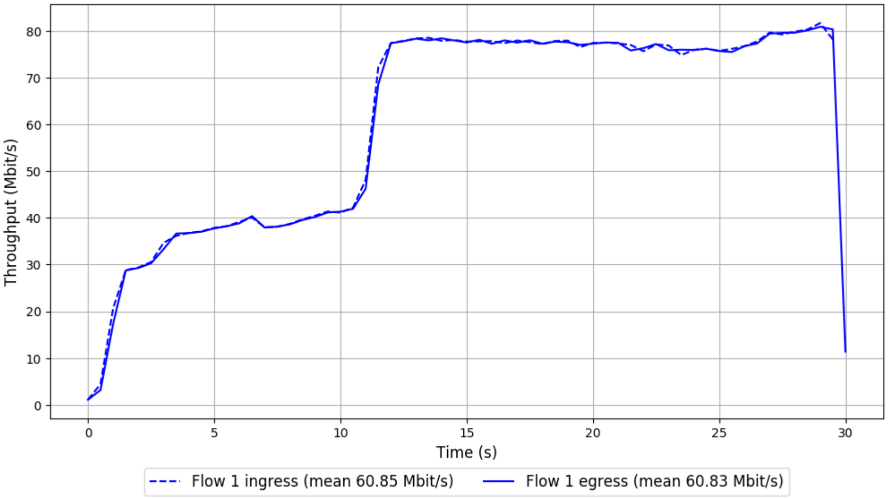
Run 2: Report of Copa — Data Link

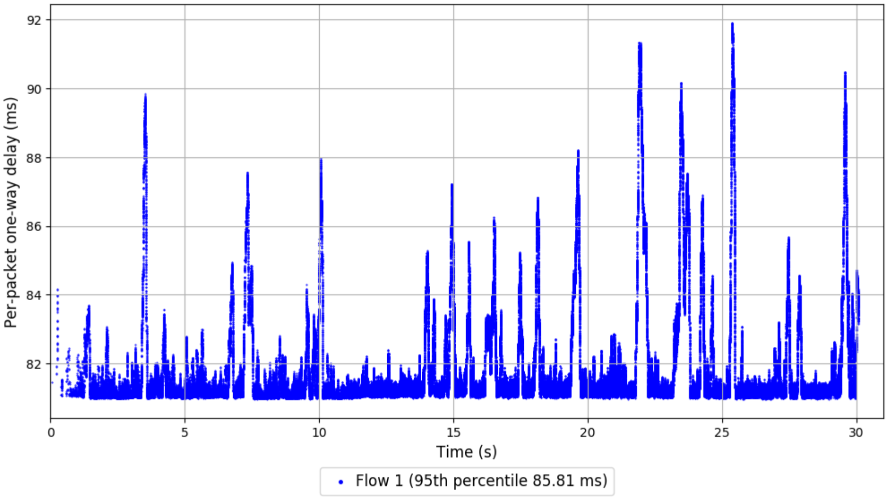




```
Run 3: Statistics of Copa

Start at: 2018-02-20 01:33:35
End at: 2018-02-20 01:34:05
Local clock offset: -7.13 ms
Remote clock offset: -0.458 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.83 Mbit/s
95th percentile per-packet one-way delay: 85.815 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 60.83 Mbit/s
95th percentile per-packet one-way delay: 85.815 ms
Loss rate: 0.04%
```

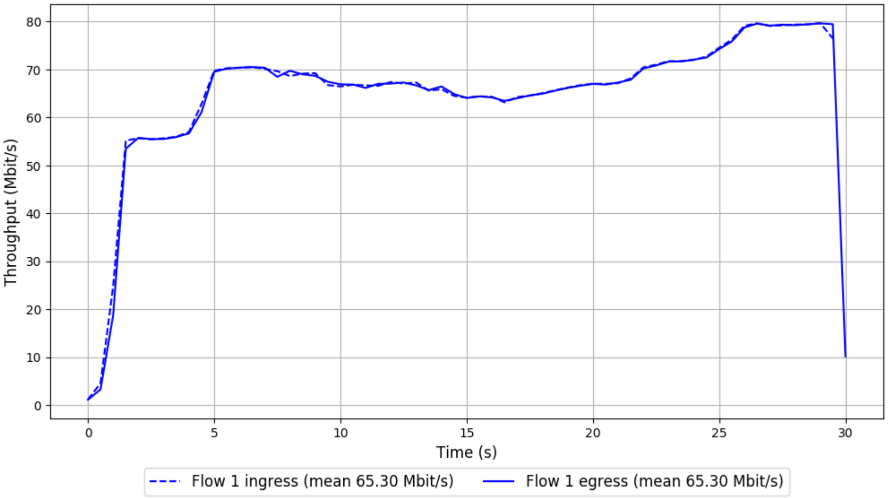
Run 3: Report of Copa — Data Link

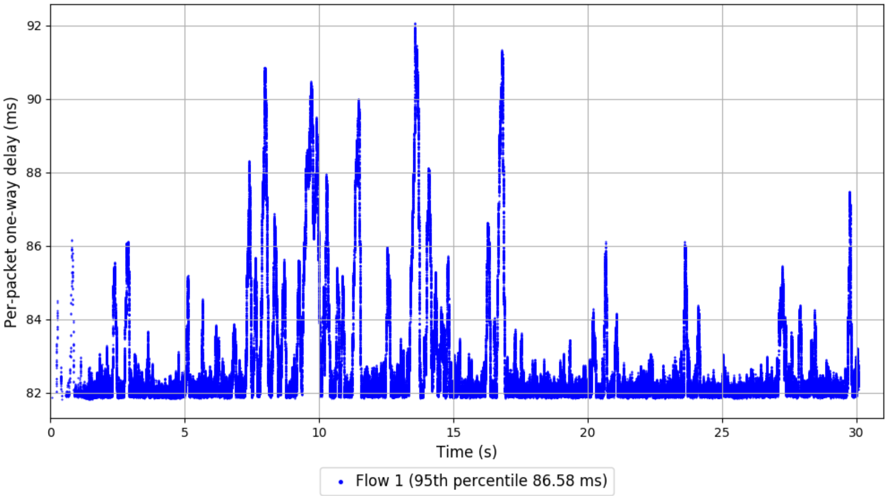




```
Run 4: Statistics of Copa

Start at: 2018-02-20 01:55:46
End at: 2018-02-20 01:56:16
Local clock offset: -8.207 ms
Remote clock offset: 0.862 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 86.578 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 86.578 ms
Loss rate: 0.00%
```

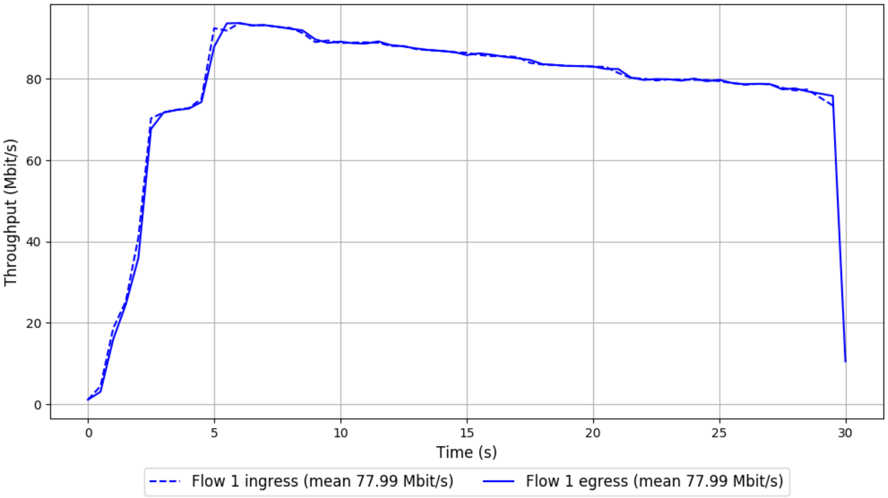
Run 4: Report of Copa — Data Link

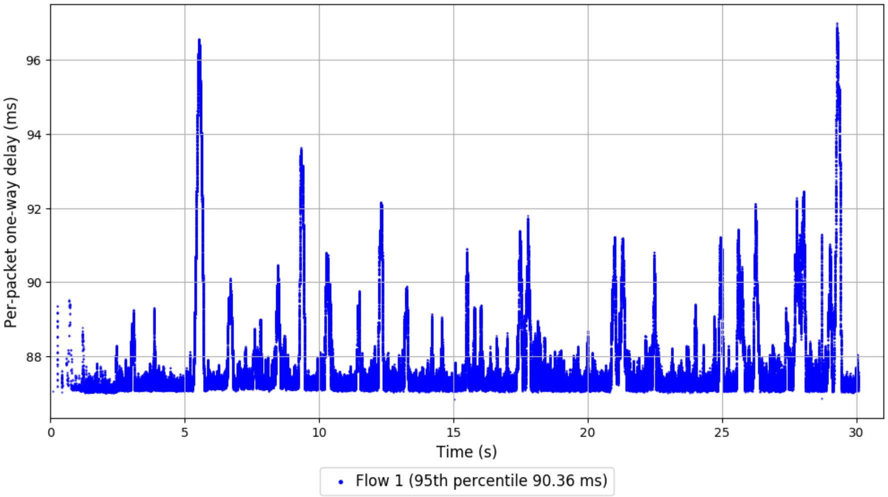




```
Run 5: Statistics of Copa

Start at: 2018-02-20 02:17:55
End at: 2018-02-20 02:18:25
Local clock offset: -8.345 ms
Remote clock offset: 6.385 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.99 Mbit/s
95th percentile per-packet one-way delay: 90.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.99 Mbit/s
95th percentile per-packet one-way delay: 90.360 ms
Loss rate: 0.00%
```

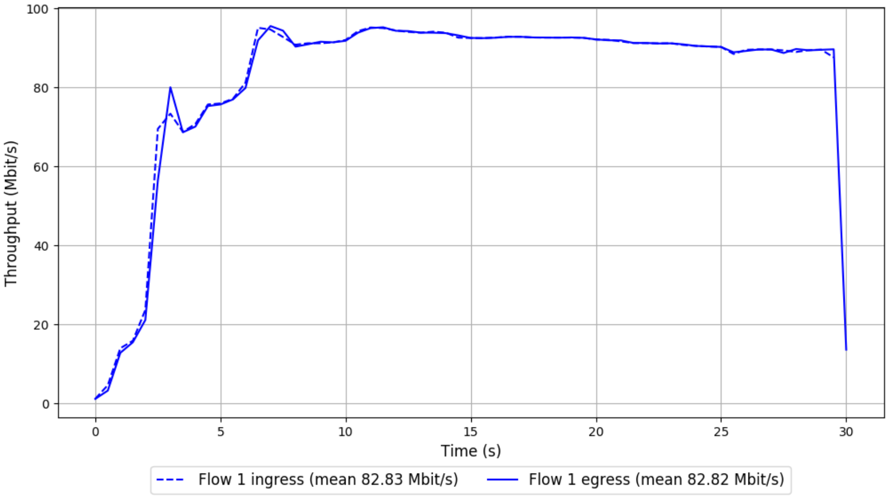
Run 5: Report of Copa — Data Link

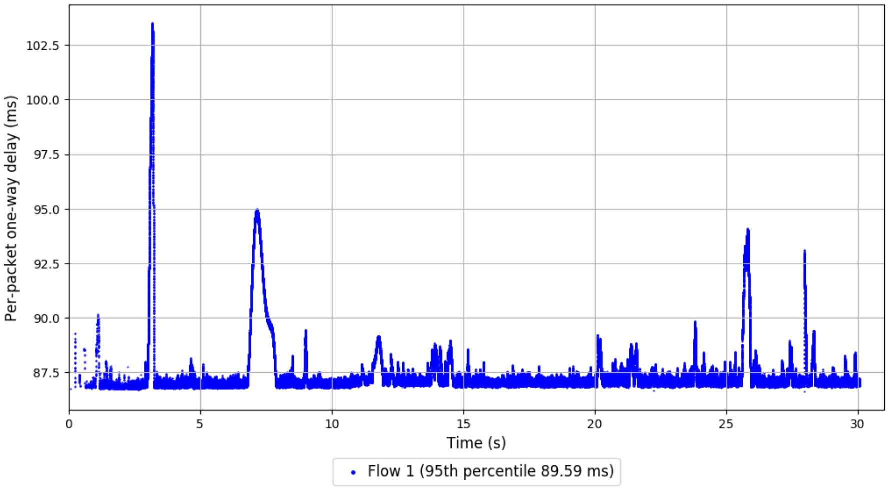




```
Run 6: Statistics of Copa

Start at: 2018-02-20 02:39:54
End at: 2018-02-20 02:40:24
Local clock offset: -4.543 ms
Remote clock offset: 6.838 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.82 Mbit/s
95th percentile per-packet one-way delay: 89.587 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.82 Mbit/s
95th percentile per-packet one-way delay: 89.587 ms
Loss rate: 0.00%
```

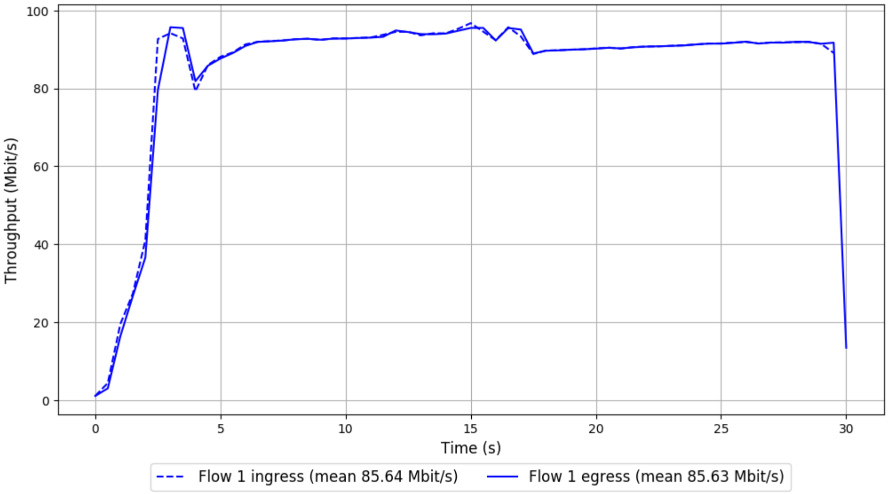
Run 6: Report of Copa — Data Link

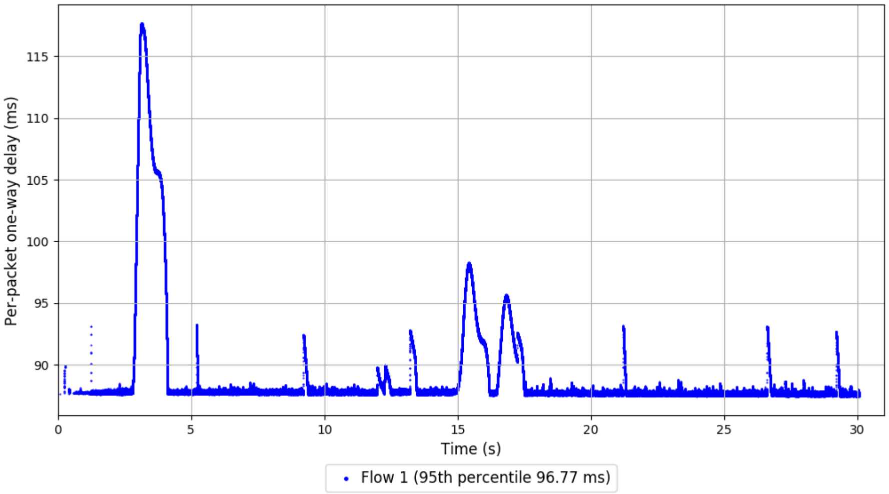




```
Run 7: Statistics of Copa

Start at: 2018-02-20 03:01:55
End at: 2018-02-20 03:02:25
Local clock offset: -4.2 ms
Remote clock offset: 8.308 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.63 Mbit/s
95th percentile per-packet one-way delay: 96.771 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 85.63 Mbit/s
95th percentile per-packet one-way delay: 96.771 ms
Loss rate: 0.02%
```

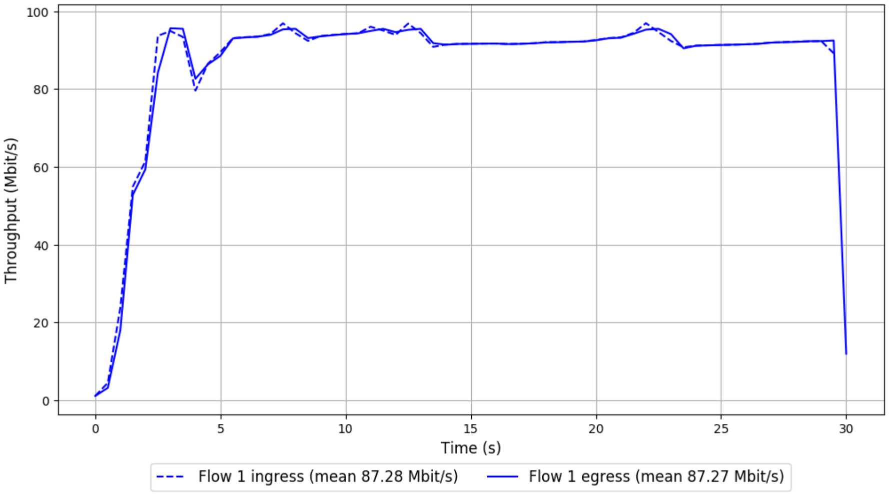
Run 7: Report of Copa — Data Link

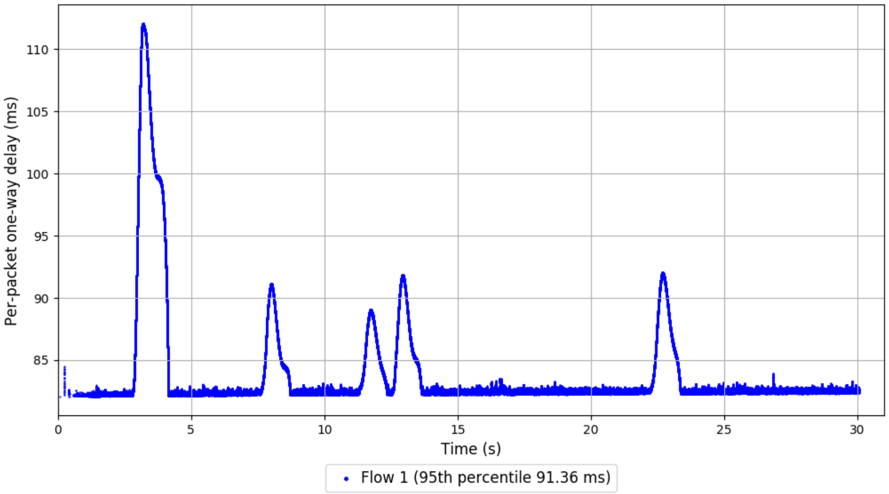




```
Run 8: Statistics of Copa

Start at: 2018-02-20 03:23:59
End at: 2018-02-20 03:24:29
Local clock offset: -8.006 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2018-02-20 05:13:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.27 Mbit/s
95th percentile per-packet one-way delay: 91.359 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 87.27 Mbit/s
95th percentile per-packet one-way delay: 91.359 ms
Loss rate: 0.02%
```

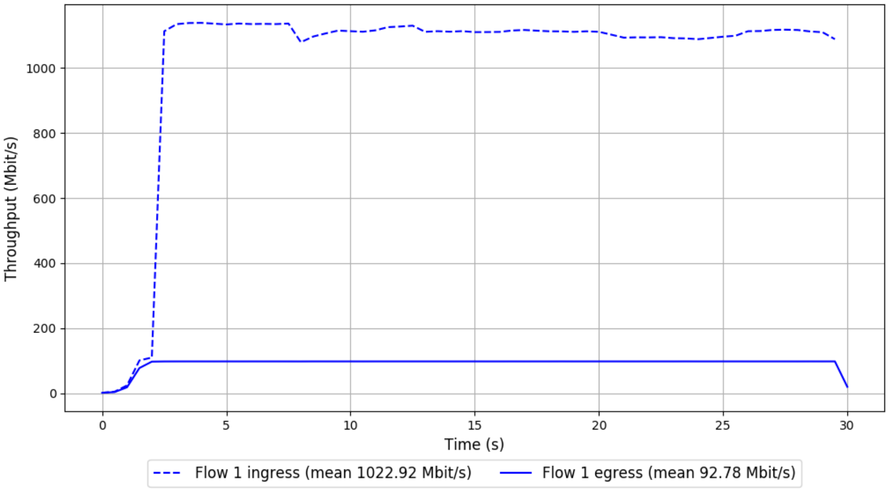
Run 8: Report of Copa — Data Link

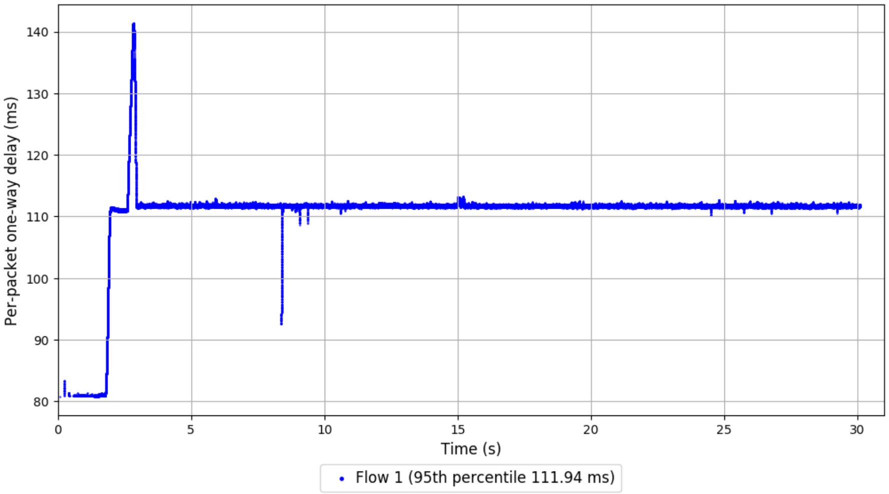




```
Run 9: Statistics of Copa

Start at: 2018-02-20 03:46:04
End at: 2018-02-20 03:46:34
Local clock offset: -15.162 ms
Remote clock offset: -6.156 ms

# Below is generated by plot.py at 2018-02-20 05:14:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 111.943 ms
Loss rate: 90.92%
-- Flow 1:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 111.943 ms
Loss rate: 90.92%
```

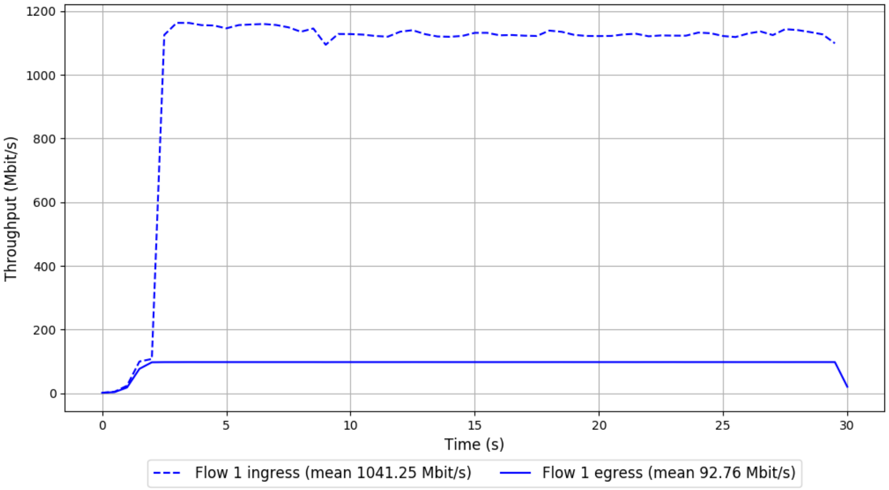
Run 9: Report of Copa — Data Link

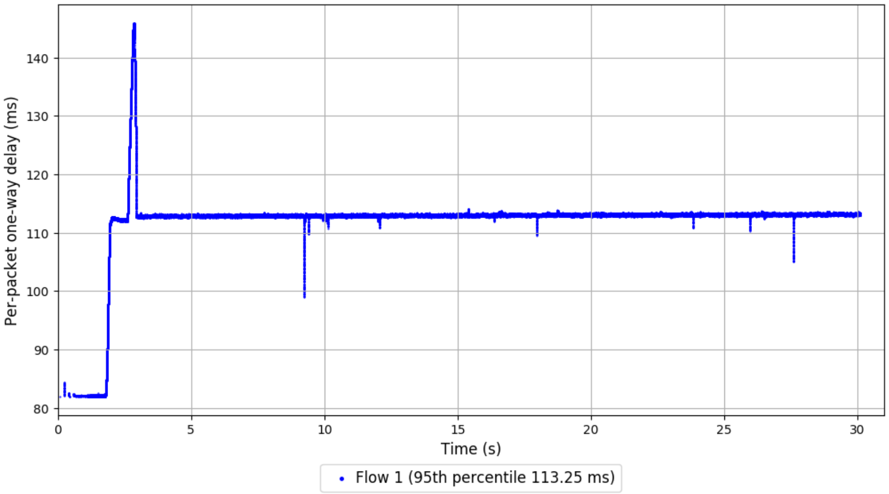




```
Run 10: Statistics of Copa

Start at: 2018-02-20 04:08:27
End at: 2018-02-20 04:08:58
Local clock offset: -18.712 ms
Remote clock offset: -5.382 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 113.252 ms
Loss rate: 91.08%
-- Flow 1:
Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 113.252 ms
Loss rate: 91.08%
```

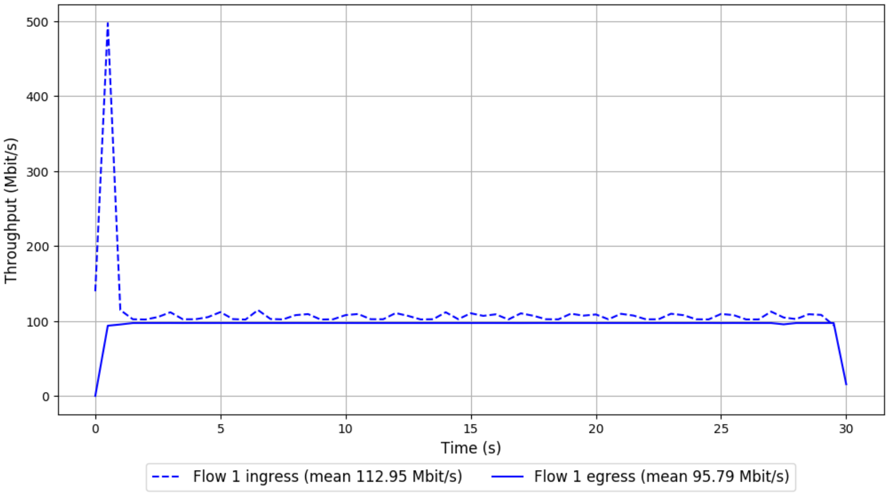
Run 10: Report of Copa — Data Link

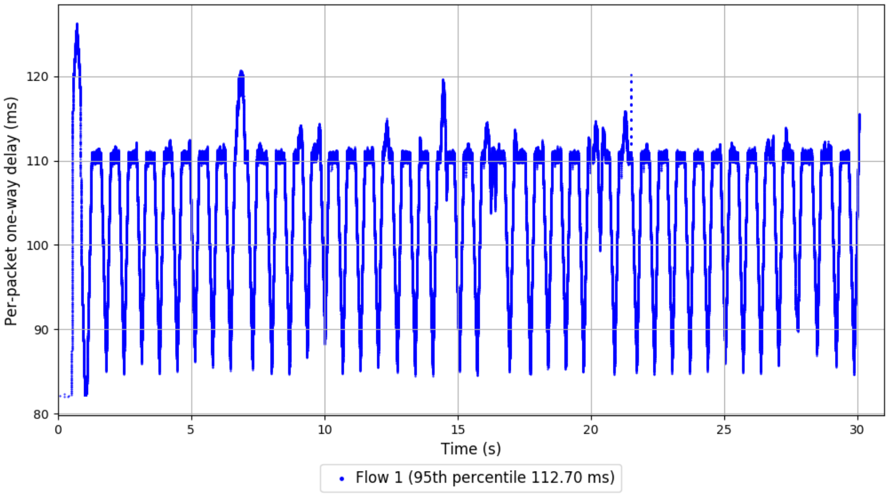




```
Run 1: Statistics of FillP

Start at: 2018-02-20 00:51:48
End at: 2018-02-20 00:52:18
Local clock offset: -4.418 ms
Remote clock offset: -1.705 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 112.696 ms
Loss rate: 15.10%
-- Flow 1:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 112.696 ms
Loss rate: 15.10%
```

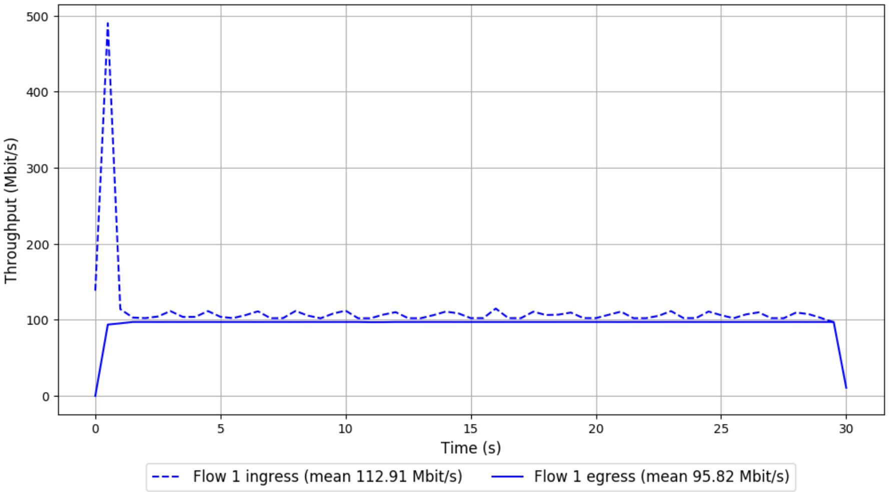
Run 1: Report of FillP — Data Link

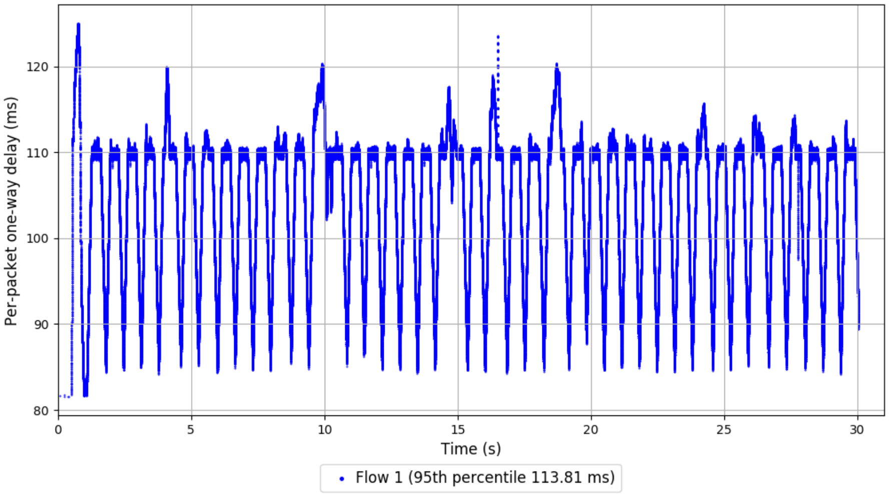




```
Run 2: Statistics of FillP

Start at: 2018-02-20 01:13:48
End at: 2018-02-20 01:14:18
Local clock offset: -2.892 ms
Remote clock offset: -0.397 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 113.809 ms
Loss rate: 15.11%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 113.809 ms
Loss rate: 15.11%
```

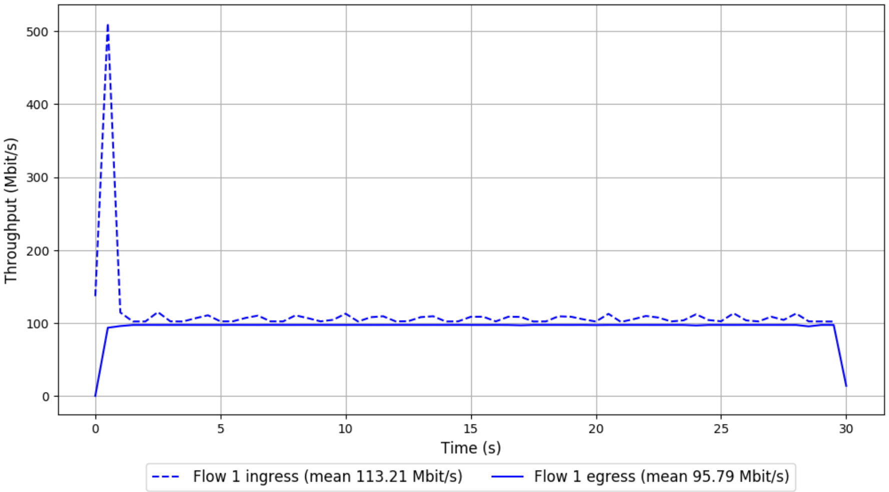
Run 2: Report of FillP — Data Link

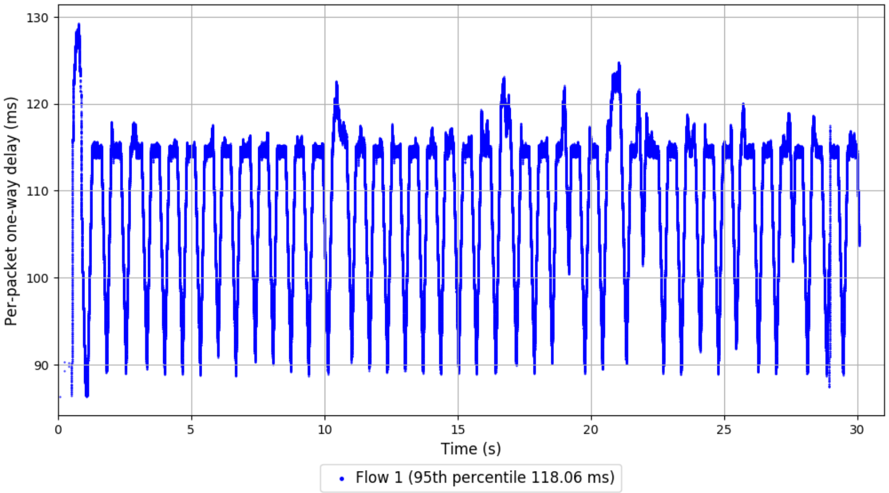




```
Run 3: Statistics of FillP

Start at: 2018-02-20 01:36:06
End at: 2018-02-20 01:36:36
Local clock offset: -7.388 ms
Remote clock offset: 5.236 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 118.058 ms
Loss rate: 15.34%
-- Flow 1:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 118.058 ms
Loss rate: 15.34%
```

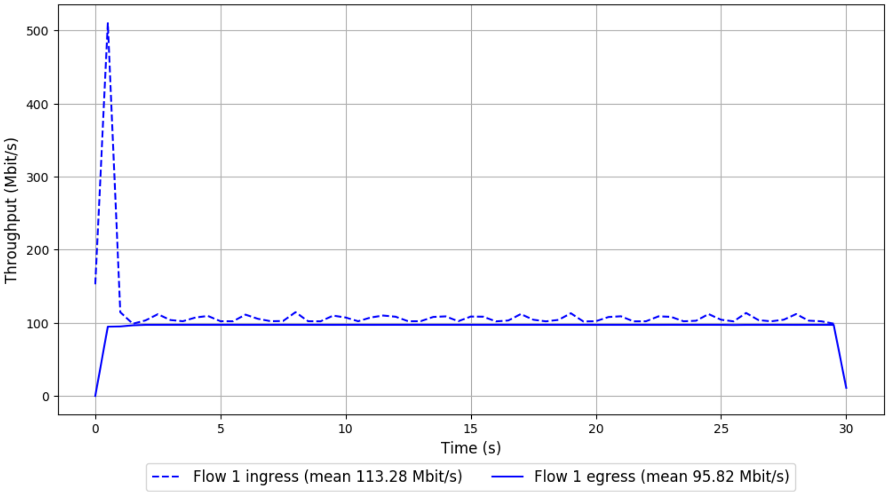
Run 3: Report of FillP — Data Link

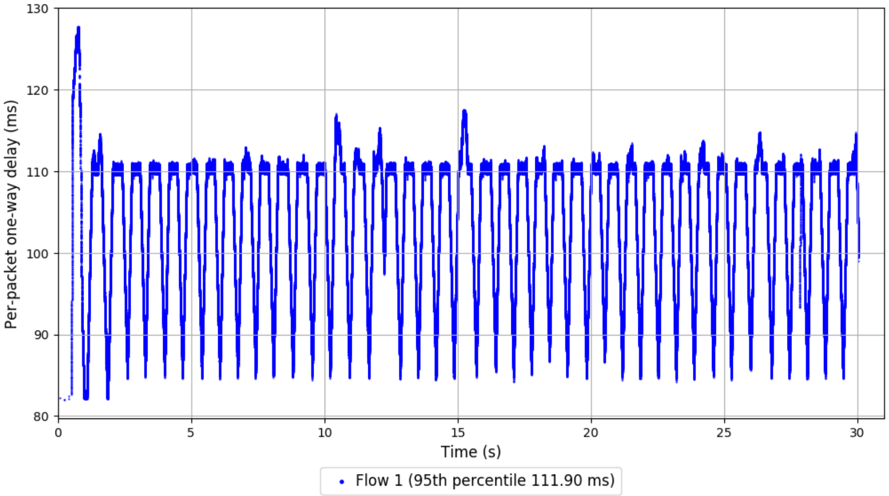




```
Run 4: Statistics of FillP

Start at: 2018-02-20 01:58:18
End at: 2018-02-20 01:58:48
Local clock offset: -8.065 ms
Remote clock offset: 0.978 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 111.902 ms
Loss rate: 15.38%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 111.902 ms
Loss rate: 15.38%
```

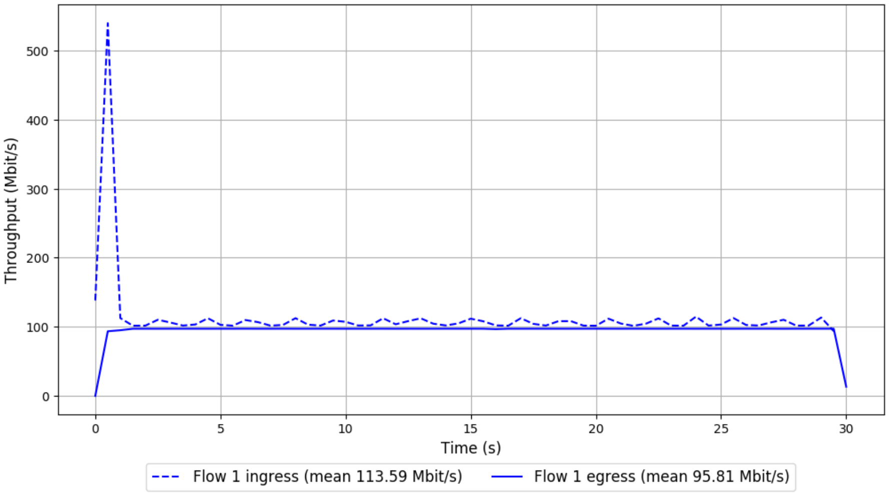
Run 4: Report of FillP — Data Link

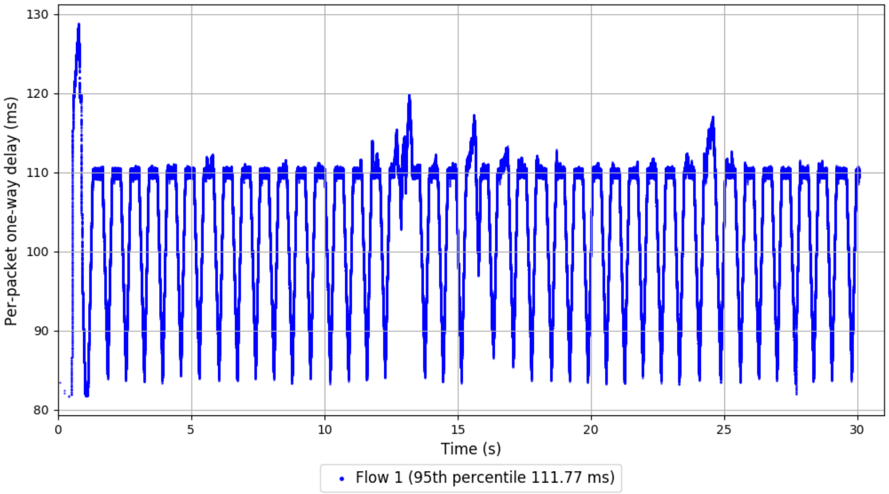




```
Run 5: Statistics of FillP

Start at: 2018-02-20 02:20:24
End at: 2018-02-20 02:20:54
Local clock offset: -8.37 ms
Remote clock offset: 0.643 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 111.770 ms
Loss rate: 15.58%
-- Flow 1:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 111.770 ms
Loss rate: 15.58%
```

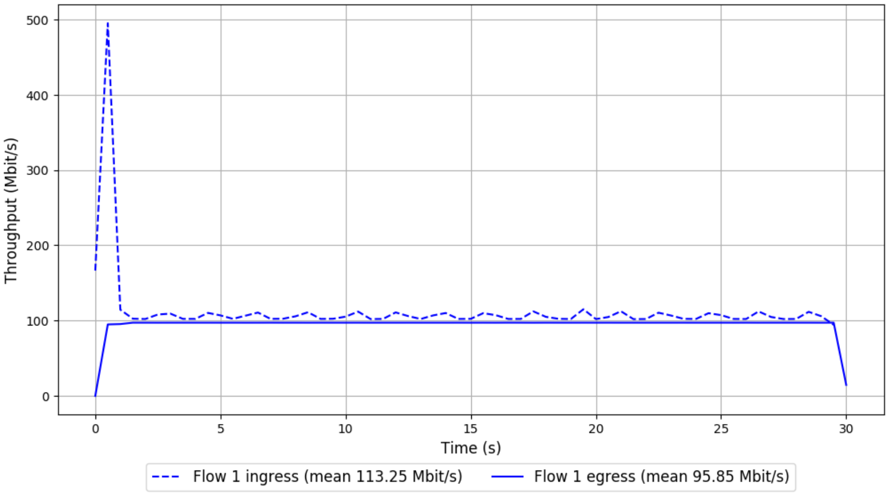
Run 5: Report of FillP — Data Link

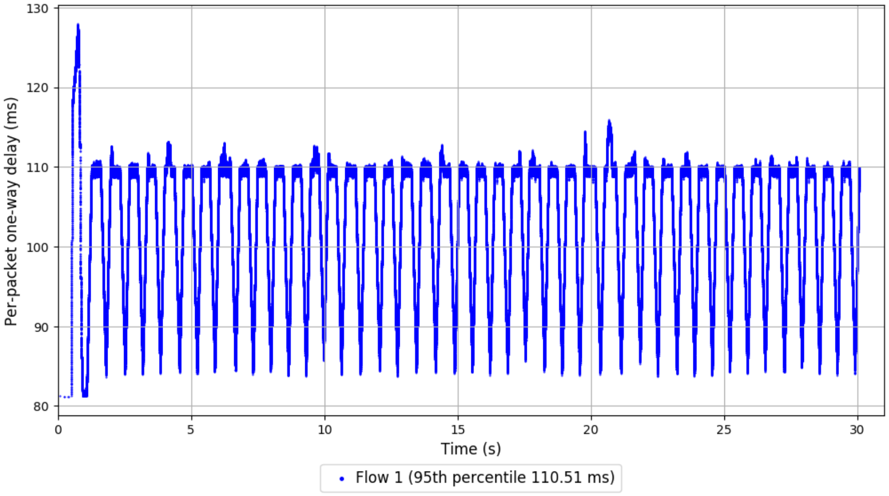




```
Run 6: Statistics of FillP

Start at: 2018-02-20 02:42:25
End at: 2018-02-20 02:42:55
Local clock offset: -4.225 ms
Remote clock offset: 1.255 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 110.508 ms
Loss rate: 15.29%
-- Flow 1:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 110.508 ms
Loss rate: 15.29%
```

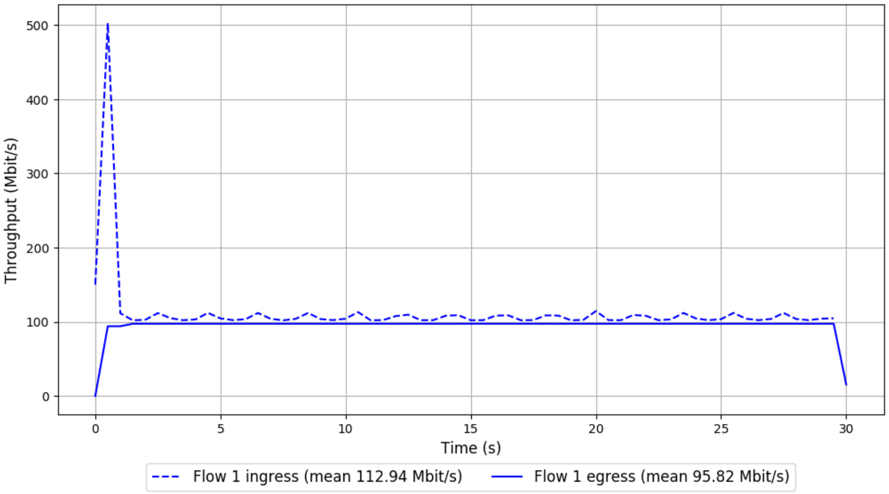
Run 6: Report of FillP — Data Link

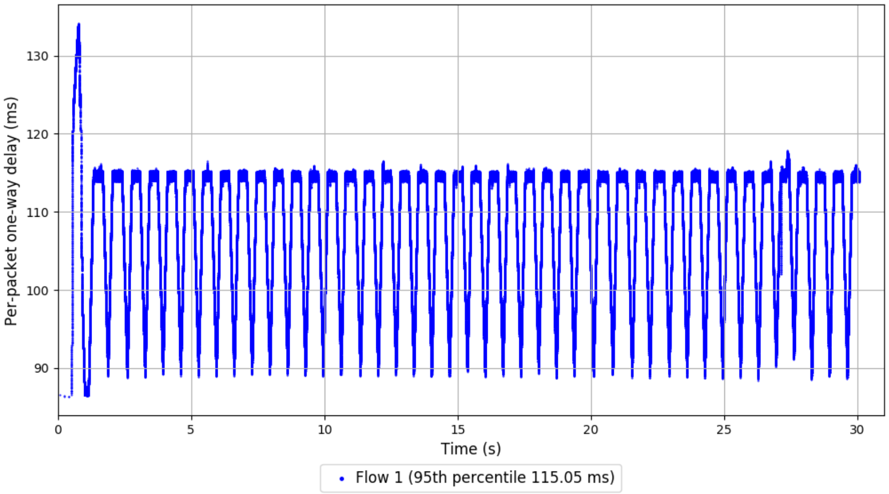




```
Run 7: Statistics of FillP

Start at: 2018-02-20 03:04:27
End at: 2018-02-20 03:04:57
Local clock offset: -5.196 ms
Remote clock offset: 7.457 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 115.046 ms
Loss rate: 15.07%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 115.046 ms
Loss rate: 15.07%
```

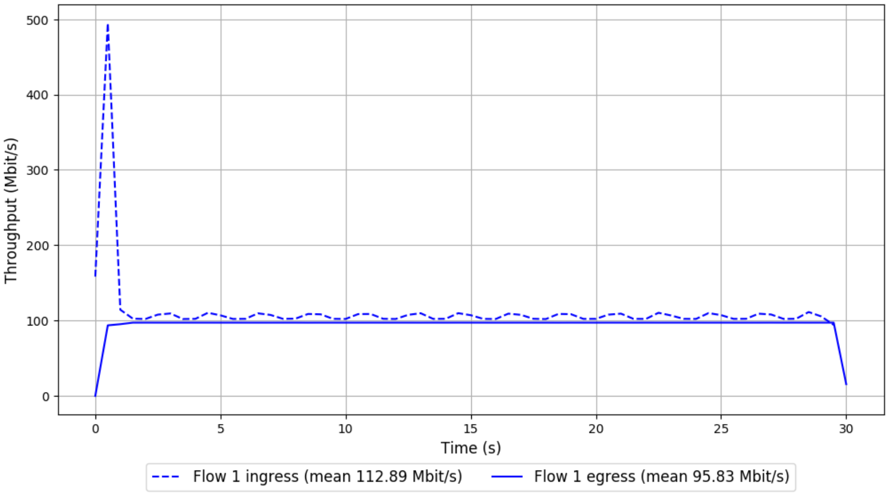
Run 7: Report of FillP — Data Link

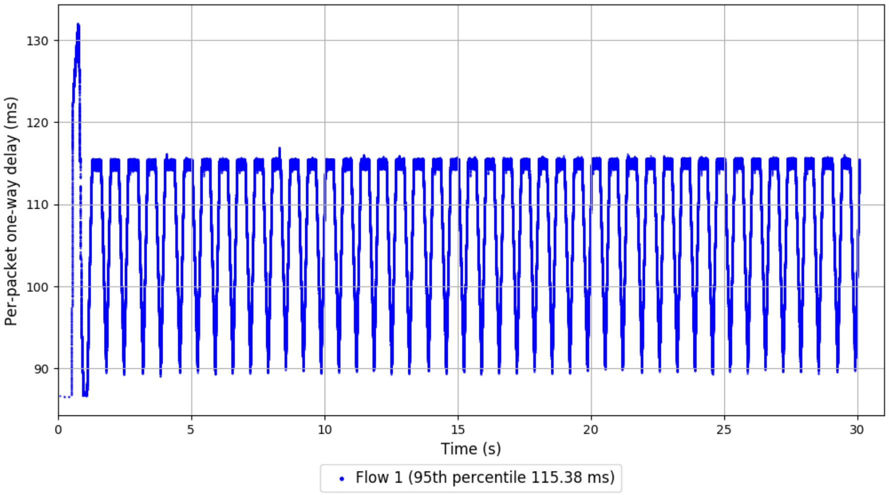




```
Run 8: Statistics of FillP

Start at: 2018-02-20 03:26:31
End at: 2018-02-20 03:27:01
Local clock offset: -8.05 ms
Remote clock offset: 3.502 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 115.378 ms
Loss rate: 15.03%
-- Flow 1:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 115.378 ms
Loss rate: 15.03%
```

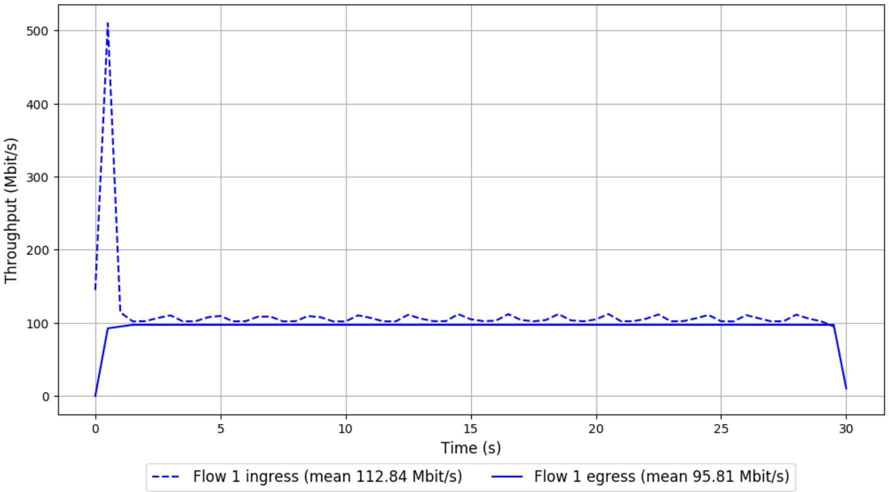
Run 8: Report of FillP — Data Link

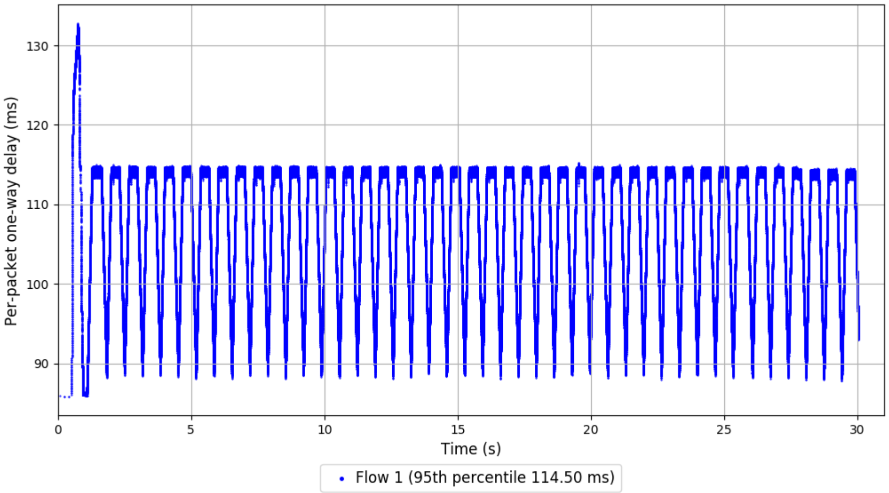




```
Run 9: Statistics of FillP

Start at: 2018-02-20 03:48:55
End at: 2018-02-20 03:49:25
Local clock offset: -15.943 ms
Remote clock offset: -1.69 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 114.499 ms
Loss rate: 15.07%
-- Flow 1:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 114.499 ms
Loss rate: 15.07%
```

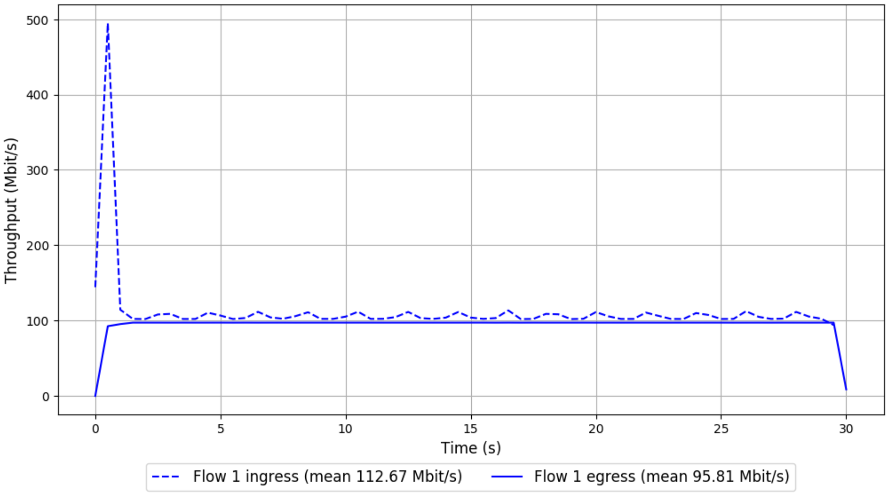
Run 9: Report of FillP — Data Link

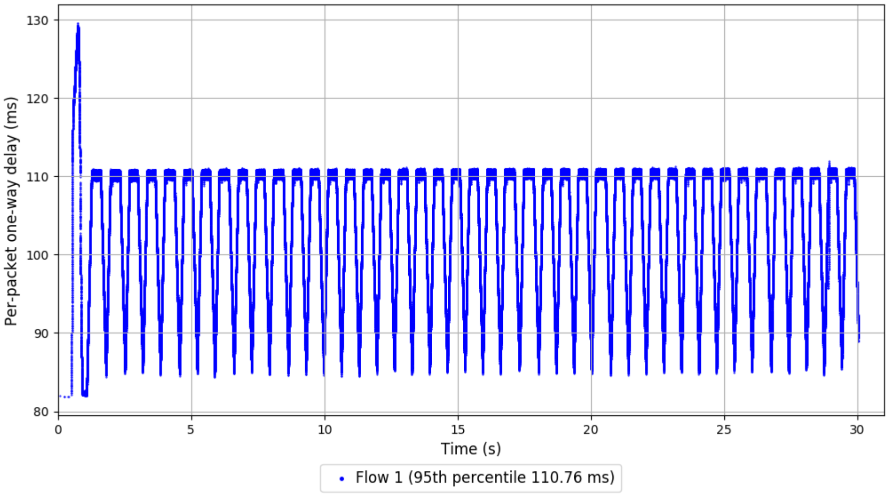




```
Run 10: Statistics of FillP

Start at: 2018-02-20 04:11:21
End at: 2018-02-20 04:11:51
Local clock offset: -16.714 ms
Remote clock offset: -4.488 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 110.762 ms
Loss rate: 14.95%
-- Flow 1:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 110.762 ms
Loss rate: 14.95%
```

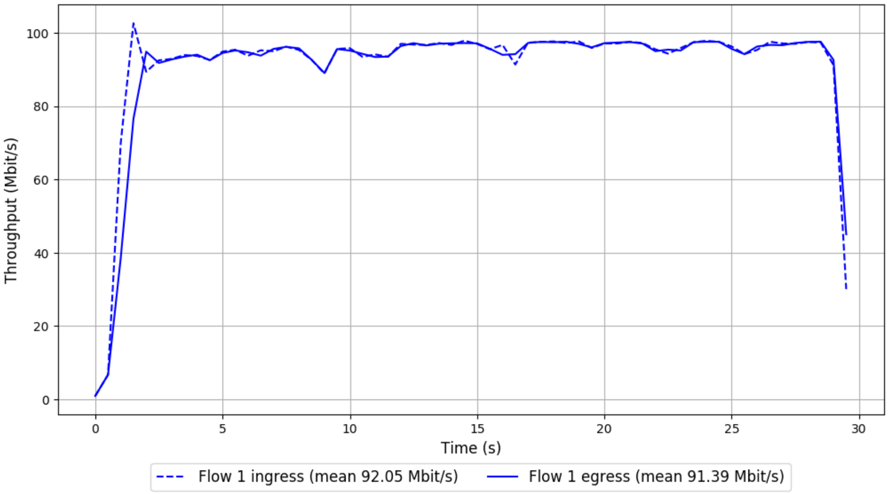
Run 10: Report of FillP — Data Link

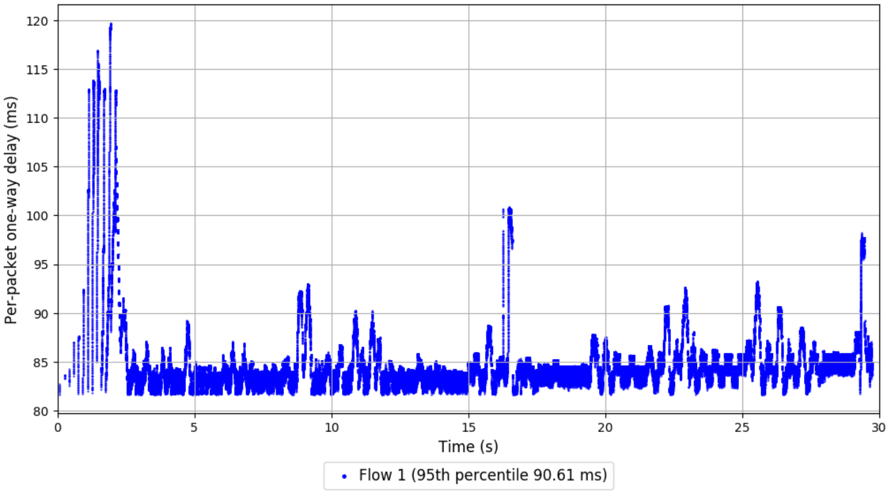




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-20 01:10:05
End at: 2018-02-20 01:10:35
Local clock offset: -3.09 ms
Remote clock offset: -1.484 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 90.613 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 90.613 ms
Loss rate: 0.71%
```

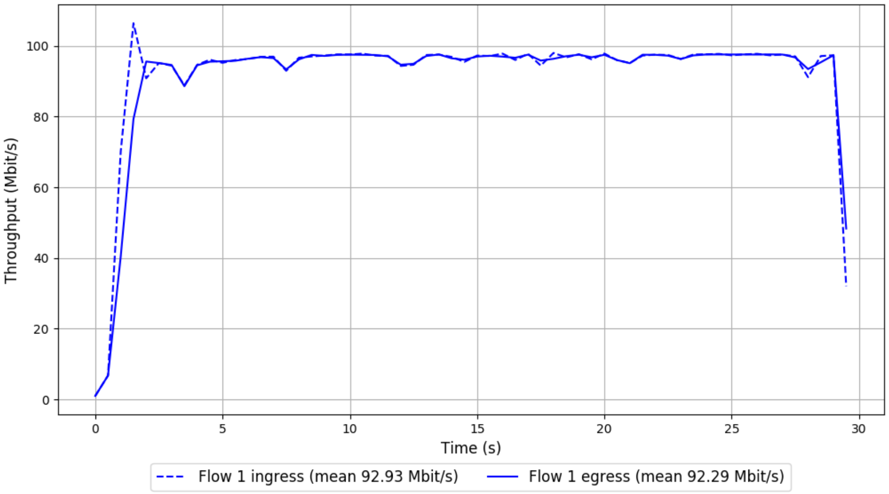
Run 1: Report of Indigo-1-32 — Data Link

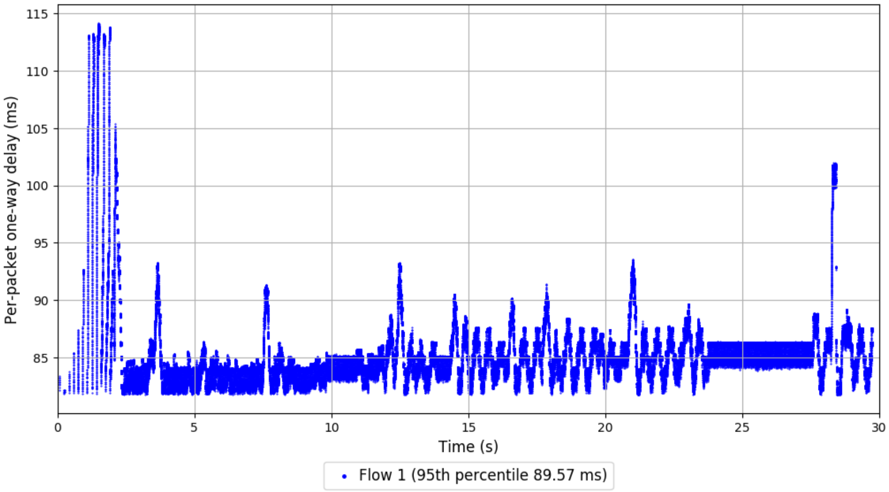




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-20 01:32:16
End at: 2018-02-20 01:32:46
Local clock offset: -6.963 ms
Remote clock offset: 0.34 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 89.570 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 89.570 ms
Loss rate: 0.67%
```

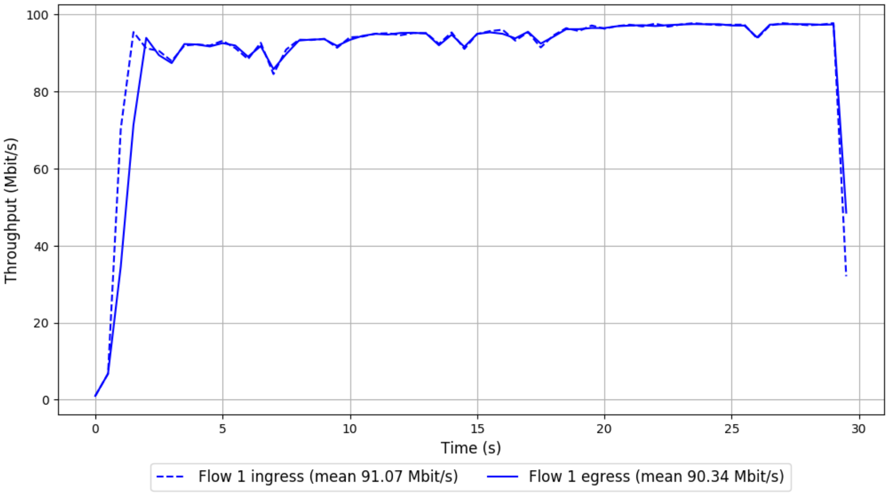
Run 2: Report of Indigo-1-32 — Data Link

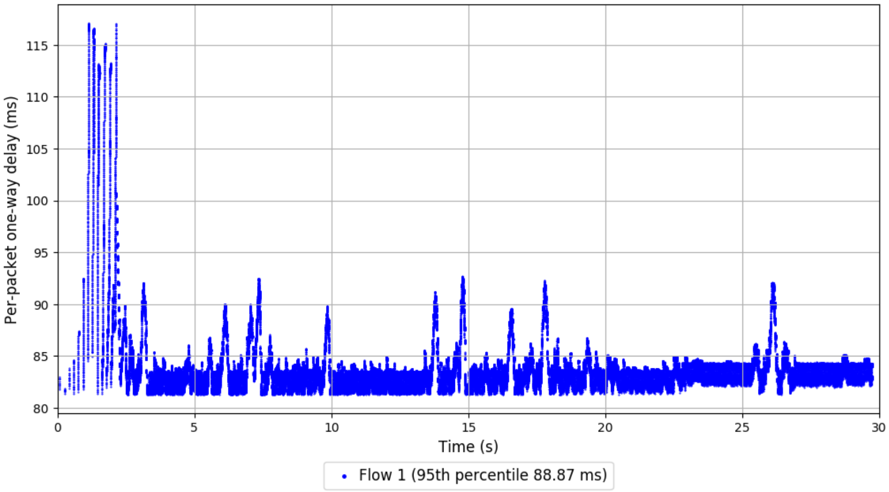




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-20 01:54:30
End at: 2018-02-20 01:55:00
Local clock offset: -8.158 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 88.867 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 88.867 ms
Loss rate: 0.80%
```

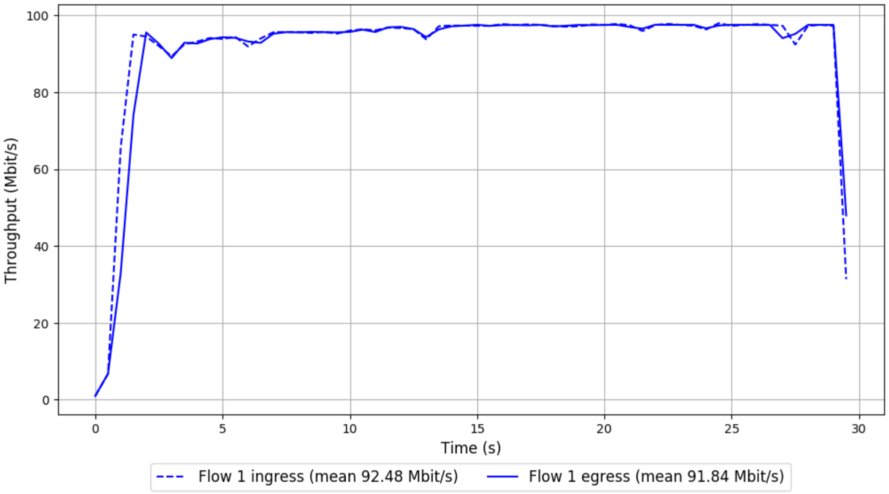
Run 3: Report of Indigo-1-32 — Data Link

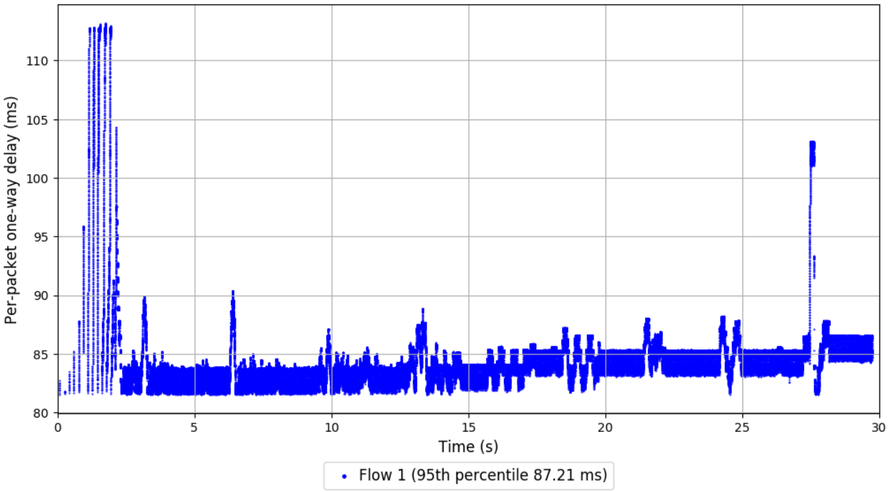




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-20 02:16:39
End at: 2018-02-20 02:17:09
Local clock offset: -8.267 ms
Remote clock offset: 0.64 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 87.208 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 87.208 ms
Loss rate: 0.68%
```

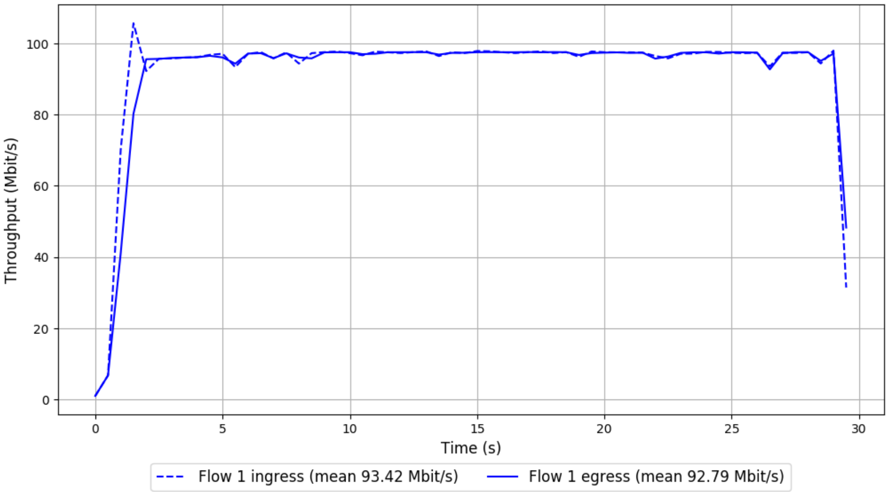
Run 4: Report of Indigo-1-32 — Data Link

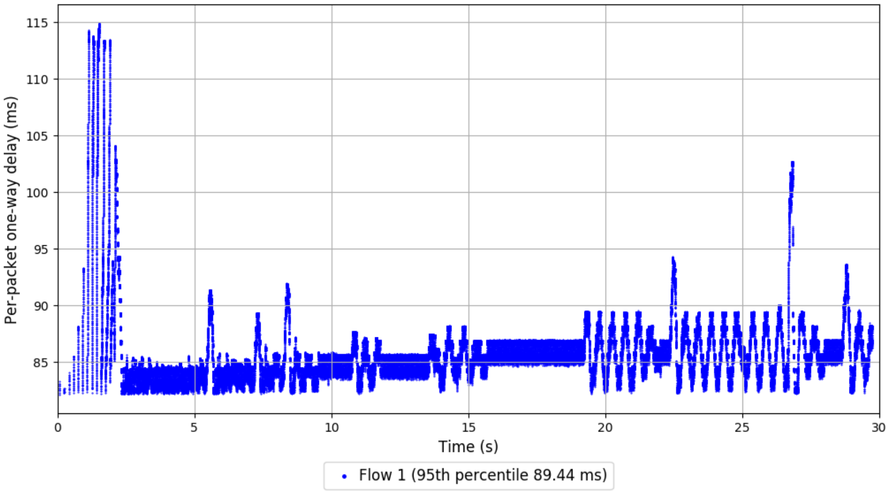




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-20 02:38:38
End at: 2018-02-20 02:39:08
Local clock offset: -4.716 ms
Remote clock offset: 1.978 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.79 Mbit/s
95th percentile per-packet one-way delay: 89.435 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 92.79 Mbit/s
95th percentile per-packet one-way delay: 89.435 ms
Loss rate: 0.65%
```

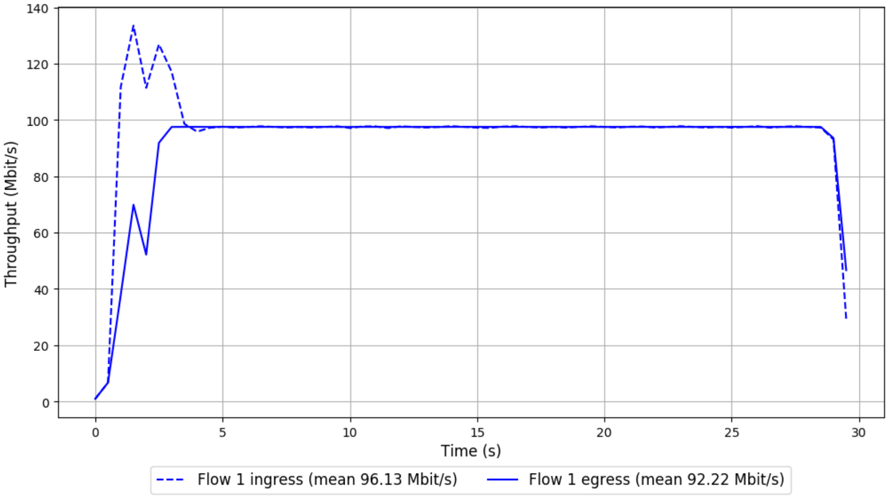
Run 5: Report of Indigo-1-32 — Data Link

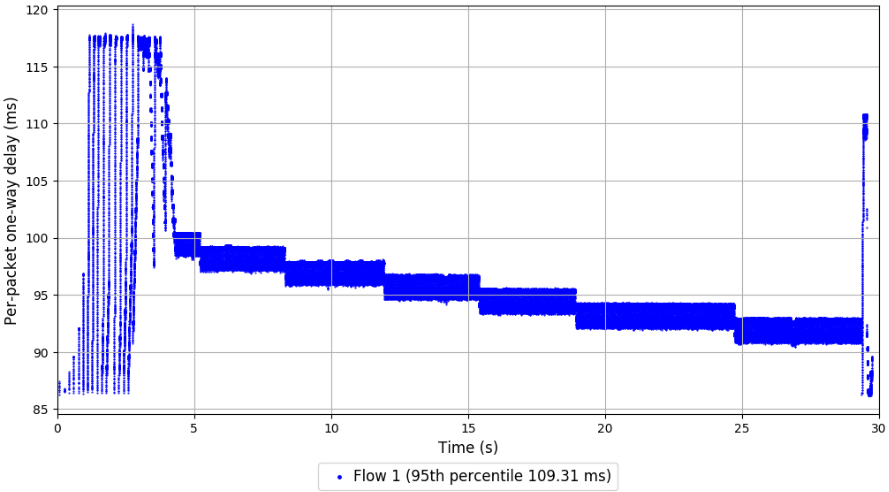




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-20 03:00:39
End at: 2018-02-20 03:01:09
Local clock offset: -3.518 ms
Remote clock offset: 7.435 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 109.315 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 109.315 ms
Loss rate: 4.05%
```

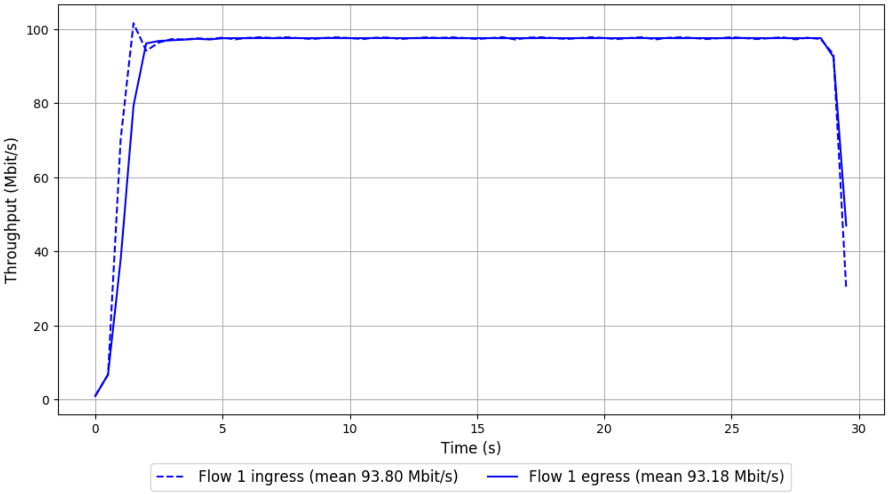
Run 6: Report of Indigo-1-32 — Data Link

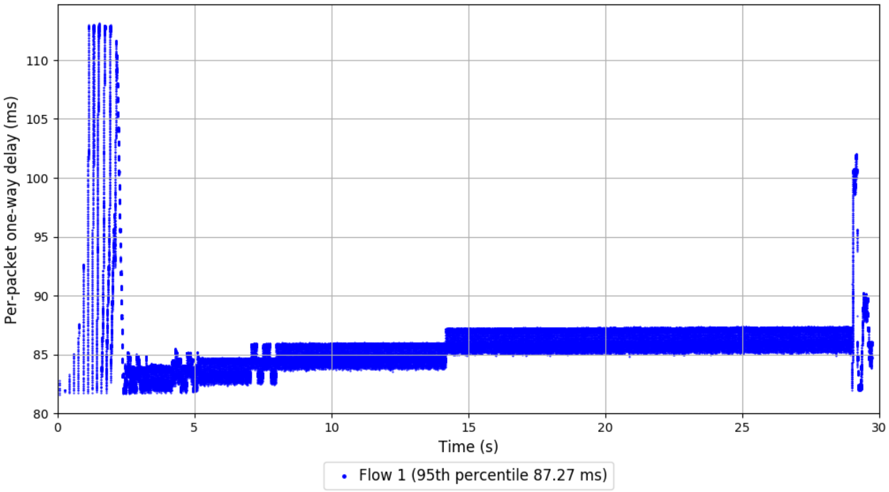




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-20 03:22:43
End at: 2018-02-20 03:23:13
Local clock offset: -7.933 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.18 Mbit/s
95th percentile per-packet one-way delay: 87.266 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 93.18 Mbit/s
95th percentile per-packet one-way delay: 87.266 ms
Loss rate: 0.66%
```

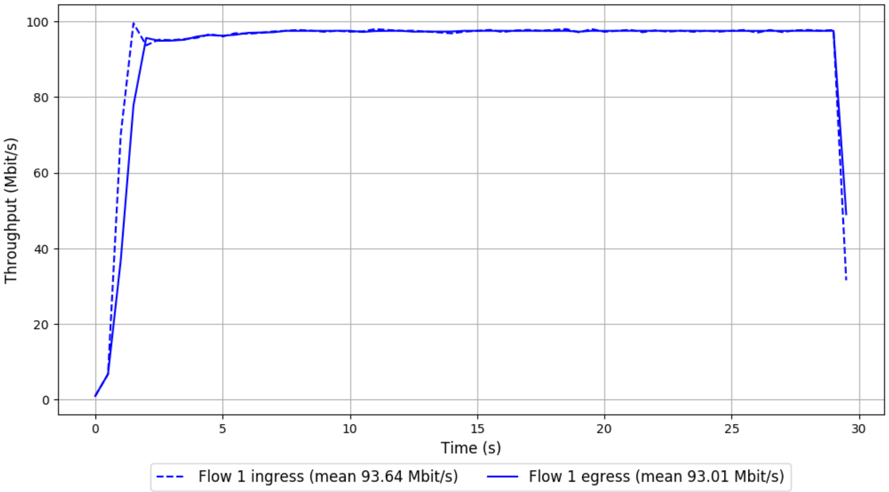
Run 7: Report of Indigo-1-32 — Data Link

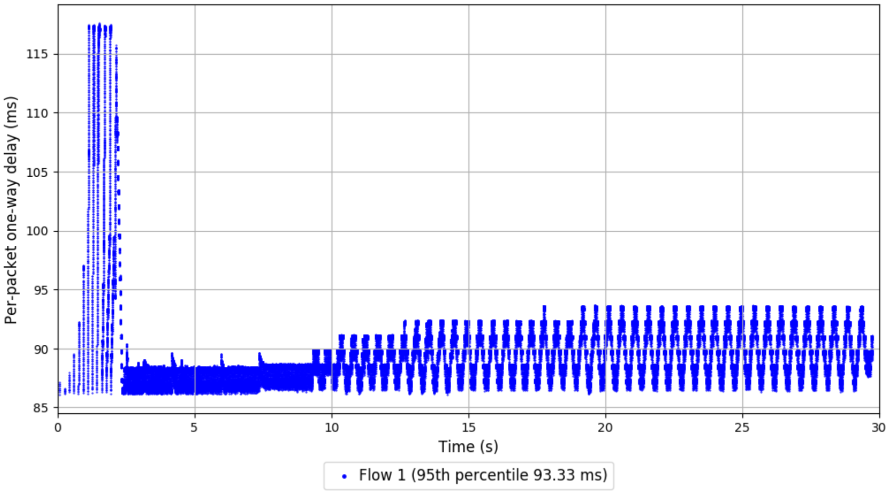




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-20 03:44:48
End at: 2018-02-20 03:45:18
Local clock offset: -14.776 ms
Remote clock offset: -1.261 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 93.330 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 93.330 ms
Loss rate: 0.66%
```

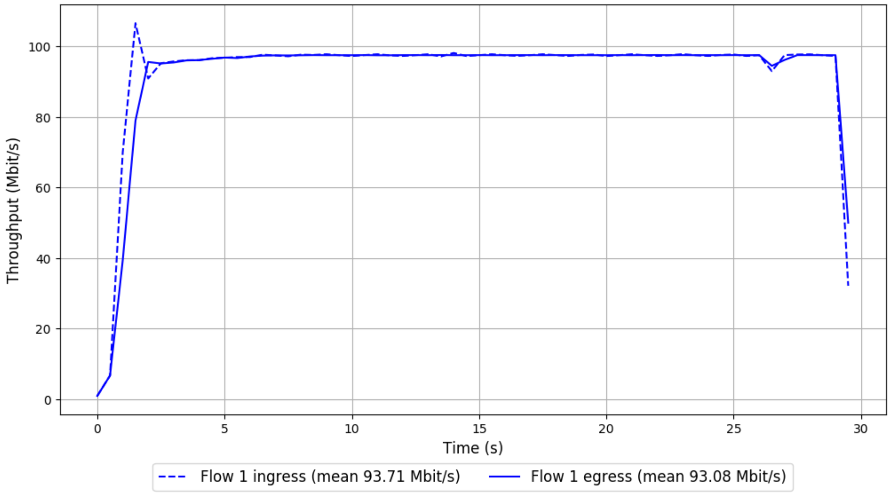
Run 8: Report of Indigo-1-32 — Data Link

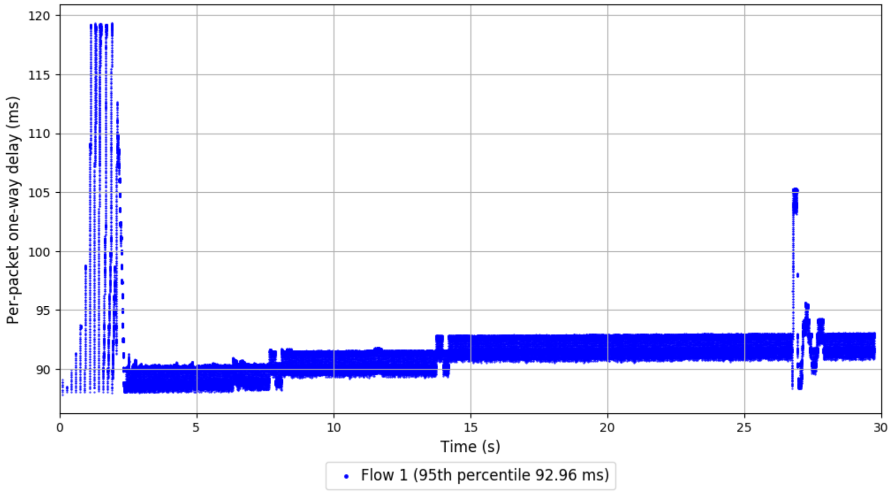




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-20 04:07:11
End at: 2018-02-20 04:07:41
Local clock offset: -19.223 ms
Remote clock offset: 1.122 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.08 Mbit/s
95th percentile per-packet one-way delay: 92.960 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 93.08 Mbit/s
95th percentile per-packet one-way delay: 92.960 ms
Loss rate: 0.66%
```

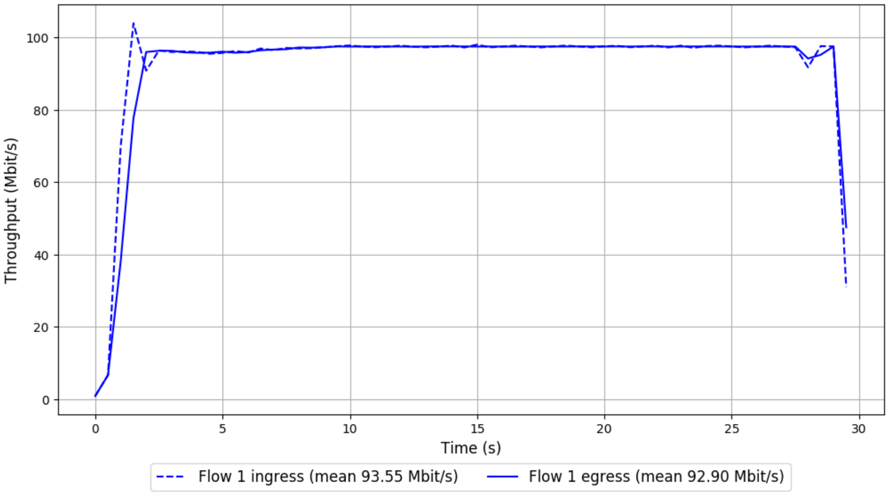
Run 9: Report of Indigo-1-32 — Data Link

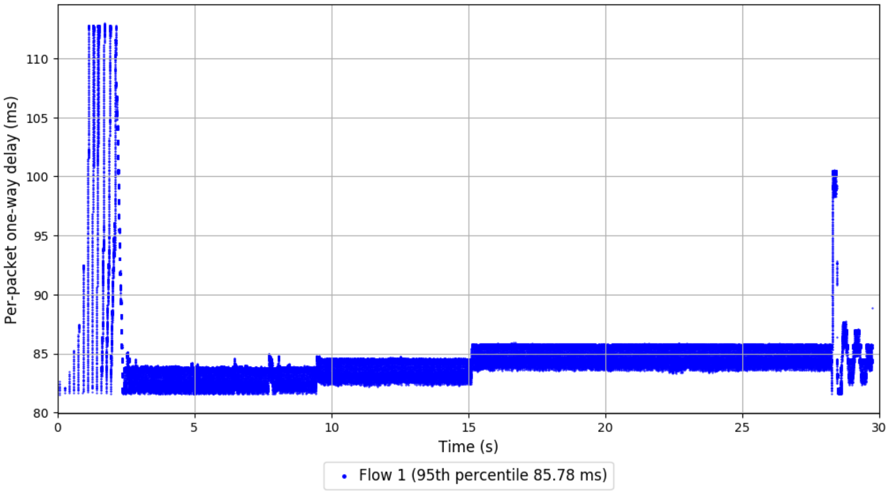




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-20 04:29:37
End at: 2018-02-20 04:30:07
Local clock offset: -12.981 ms
Remote clock offset: -5.511 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 85.781 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 85.781 ms
Loss rate: 0.67%
```

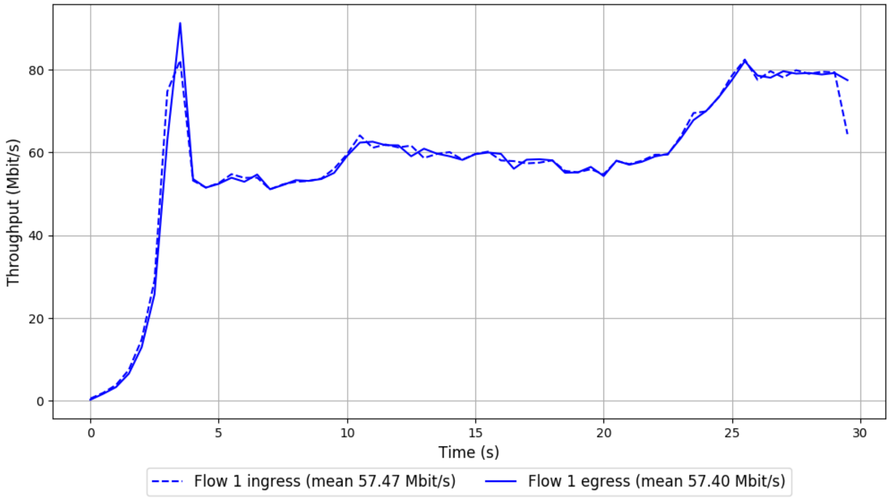
Run 10: Report of Indigo-1-32 — Data Link

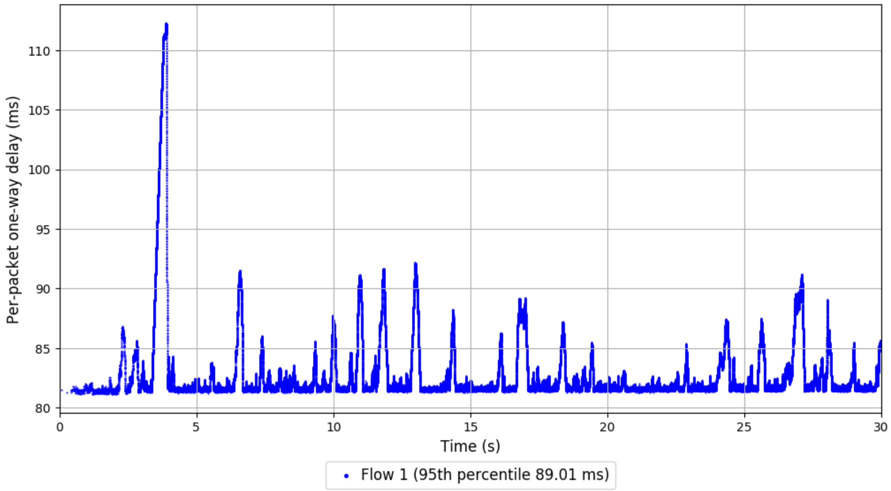




```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-20 00:50:34
End at: 2018-02-20 00:51:04
Local clock offset: -4.585 ms
Remote clock offset: -2.473 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.40 Mbit/s
95th percentile per-packet one-way delay: 89.014 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 57.40 Mbit/s
95th percentile per-packet one-way delay: 89.014 ms
Loss rate: 0.12%
```

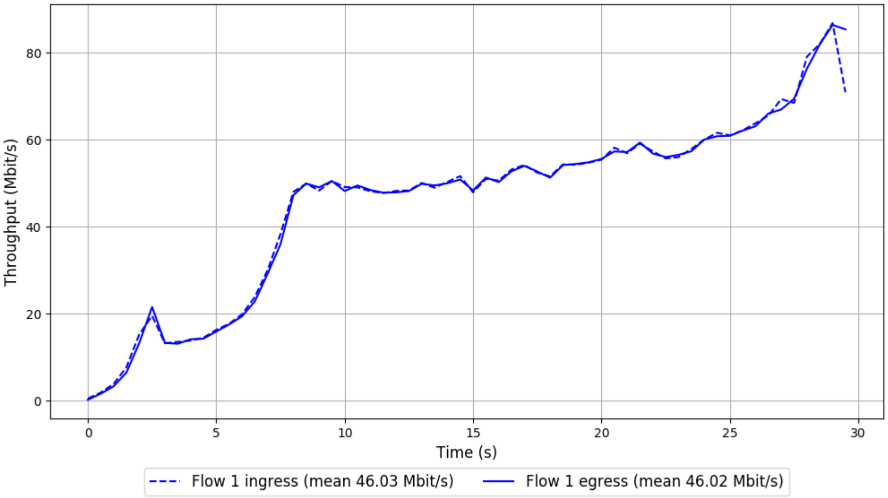
Run 1: Report of Vivace-latency — Data Link

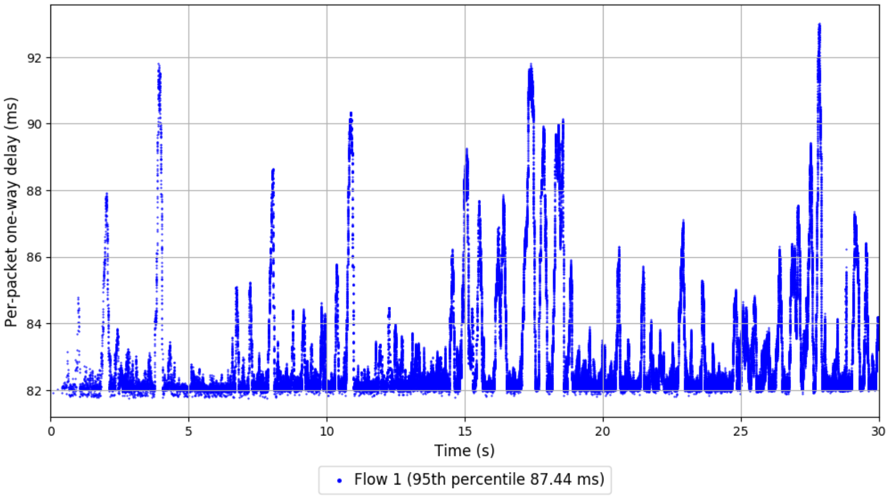




```
Run 2: Statistics of Vivace-latency

Start at: 2018-02-20 01:12:34
End at: 2018-02-20 01:13:05
Local clock offset: -2.922 ms
Remote clock offset: -0.401 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 87.444 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 87.444 ms
Loss rate: 0.03%
```

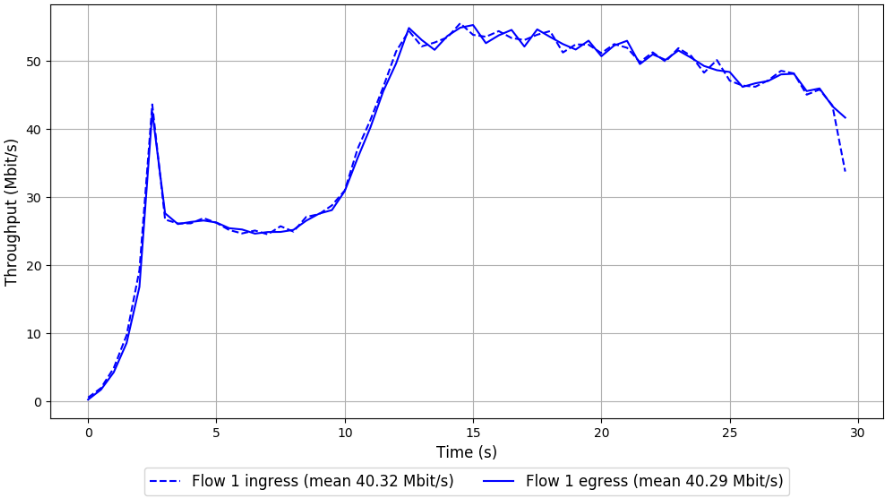
Run 2: Report of Vivace-latency — Data Link

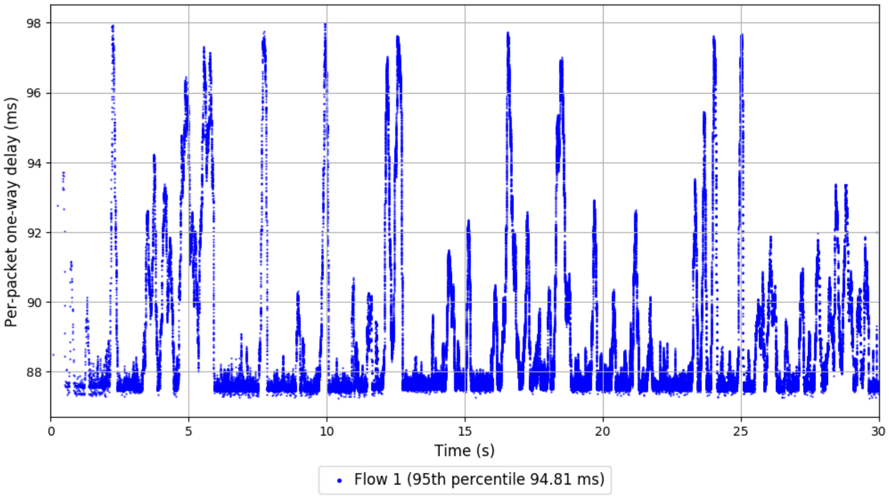




```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-20 01:34:53
End at: 2018-02-20 01:35:23
Local clock offset: -7.323 ms
Remote clock offset: 6.055 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.29 Mbit/s
95th percentile per-packet one-way delay: 94.811 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 40.29 Mbit/s
95th percentile per-packet one-way delay: 94.811 ms
Loss rate: 0.08%
```

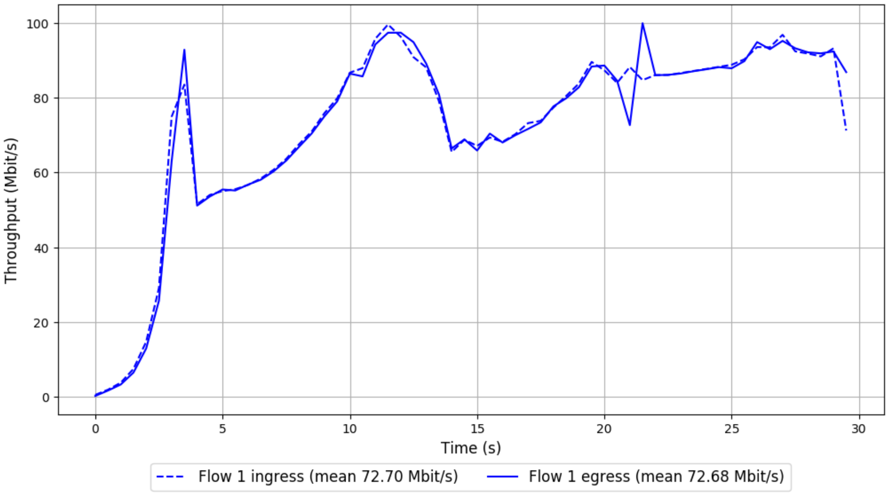
Run 3: Report of Vivace-latency — Data Link

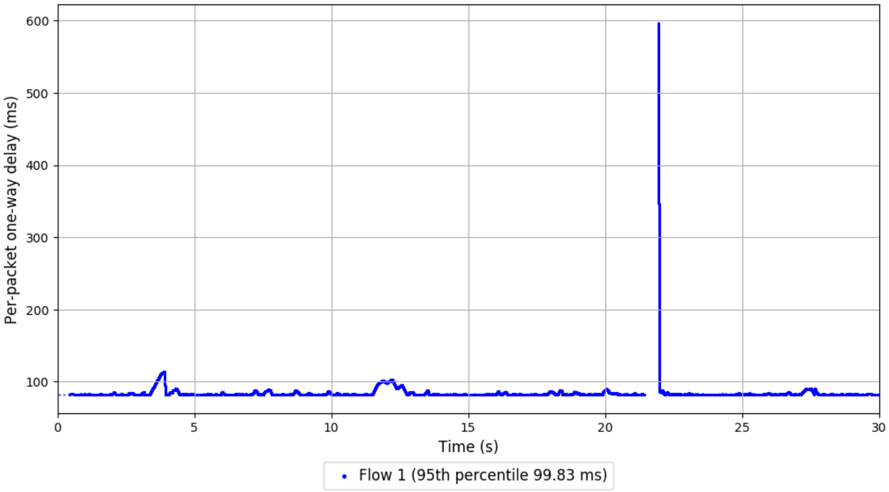




```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-20 01:57:01
End at: 2018-02-20 01:57:31
Local clock offset: -8.085 ms
Remote clock offset: 0.898 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.68 Mbit/s
95th percentile per-packet one-way delay: 99.829 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 72.68 Mbit/s
95th percentile per-packet one-way delay: 99.829 ms
Loss rate: 0.02%
```

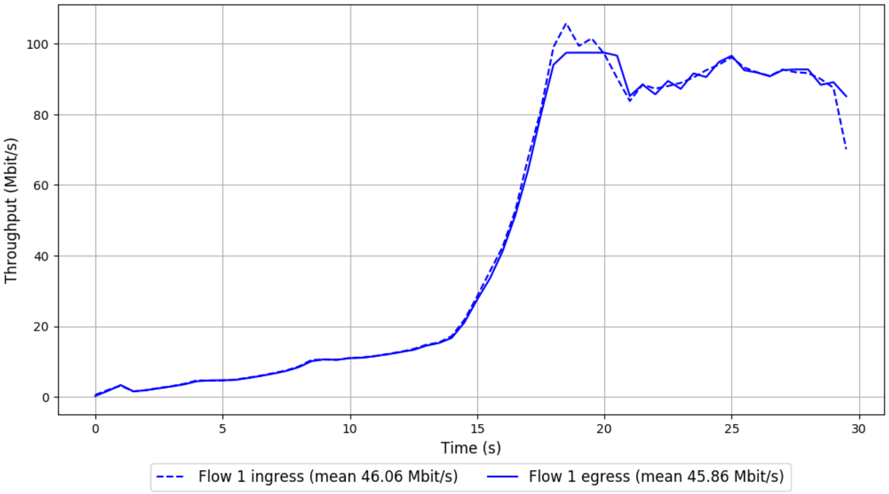
Run 4: Report of Vivace-latency — Data Link

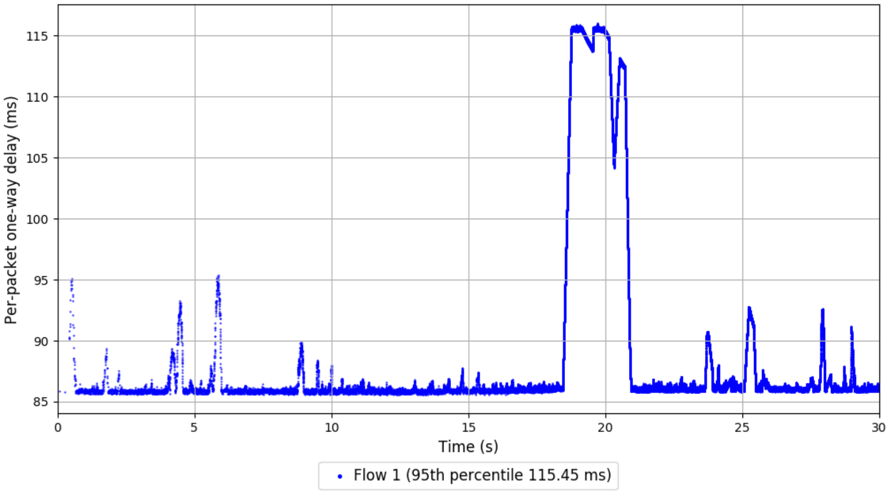




```
Run 5: Statistics of Vivace-latency

Start at: 2018-02-20 02:19:11
End at: 2018-02-20 02:19:41
Local clock offset: -8.343 ms
Remote clock offset: 5.492 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.86 Mbit/s
95th percentile per-packet one-way delay: 115.448 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 45.86 Mbit/s
95th percentile per-packet one-way delay: 115.448 ms
Loss rate: 0.42%
```

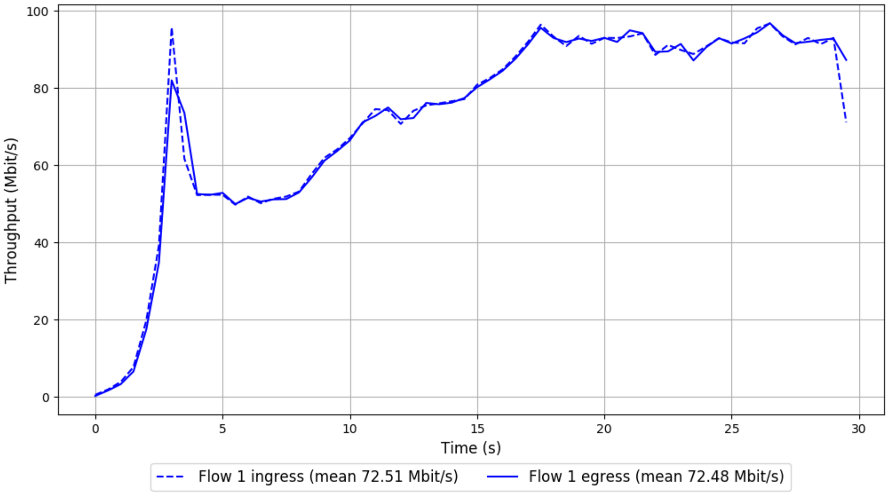
Run 5: Report of Vivace-latency — Data Link

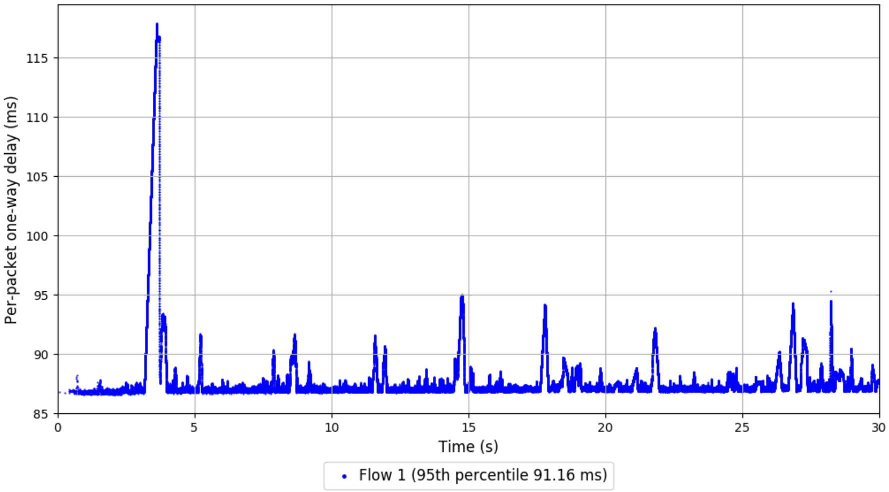




```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-20 02:41:11
End at: 2018-02-20 02:41:41
Local clock offset: -4.435 ms
Remote clock offset: 6.919 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.48 Mbit/s
95th percentile per-packet one-way delay: 91.161 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 72.48 Mbit/s
95th percentile per-packet one-way delay: 91.161 ms
Loss rate: 0.03%
```

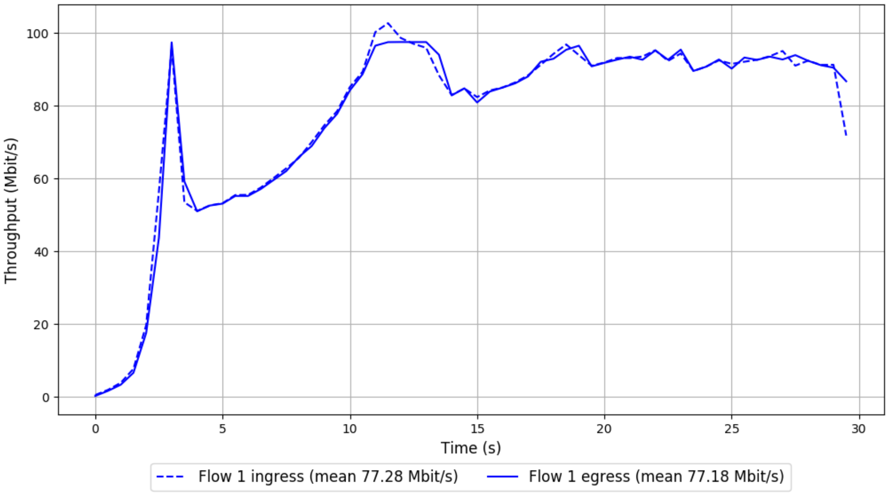
Run 6: Report of Vivace-latency — Data Link

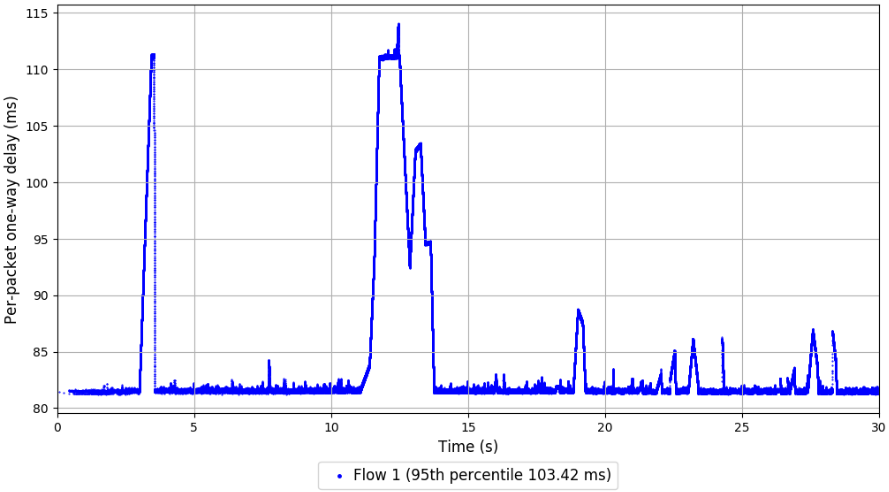




```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-20 03:03:12
End at: 2018-02-20 03:03:42
Local clock offset: -4.731 ms
Remote clock offset: 1.848 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.18 Mbit/s
95th percentile per-packet one-way delay: 103.419 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 77.18 Mbit/s
95th percentile per-packet one-way delay: 103.419 ms
Loss rate: 0.13%
```

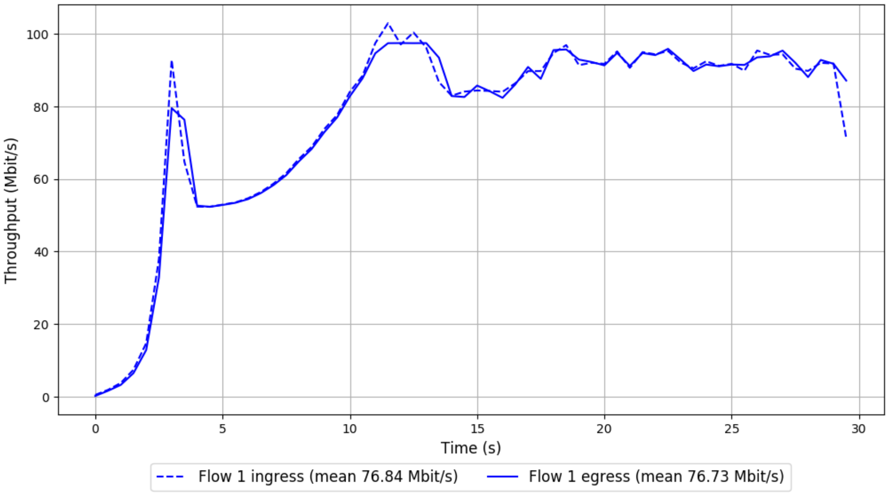
Run 7: Report of Vivace-latency — Data Link

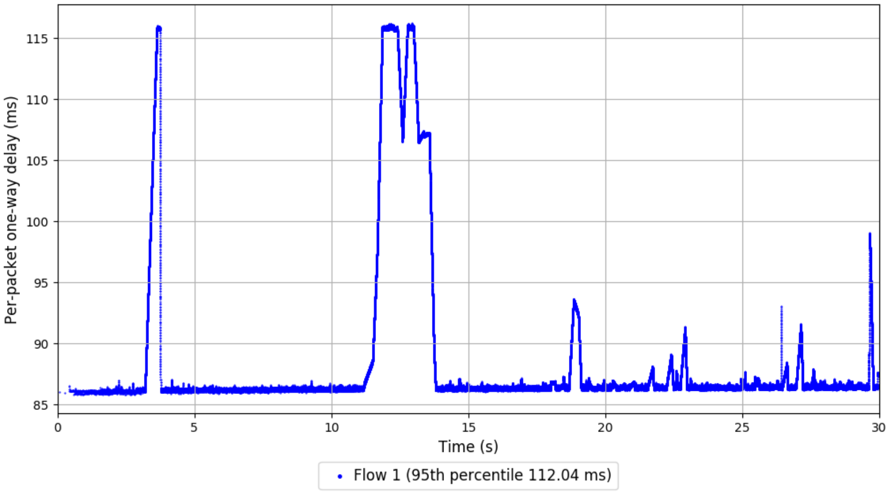




```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-20 03:25:16
End at: 2018-02-20 03:25:46
Local clock offset: -8.095 ms
Remote clock offset: 3.303 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.73 Mbit/s
95th percentile per-packet one-way delay: 112.040 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 76.73 Mbit/s
95th percentile per-packet one-way delay: 112.040 ms
Loss rate: 0.13%
```

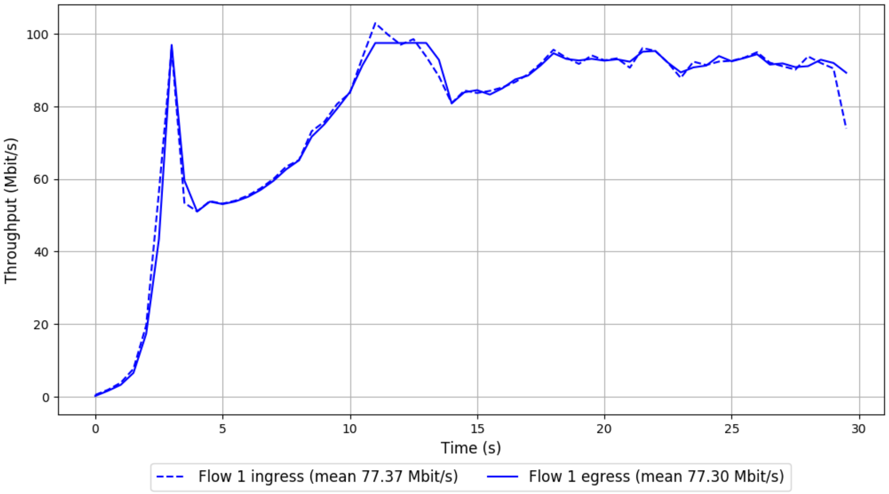
Run 8: Report of Vivace-latency — Data Link

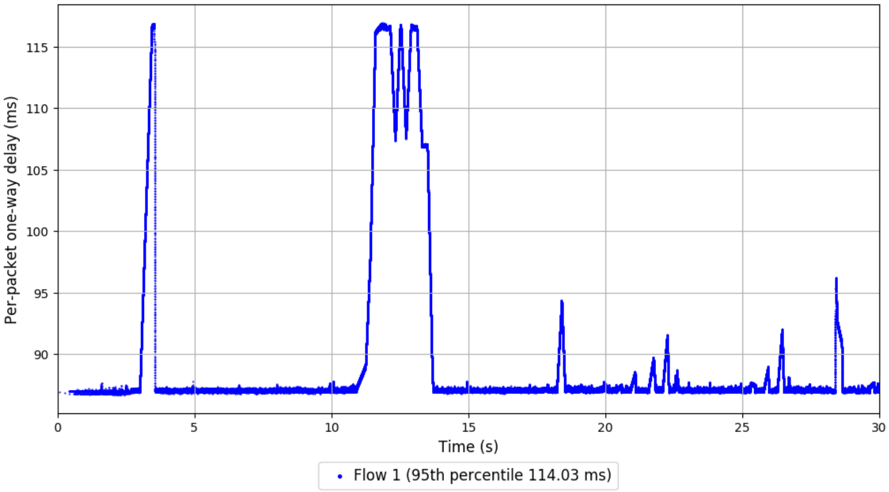




```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-20 03:47:40
End at: 2018-02-20 03:48:10
Local clock offset: -15.702 ms
Remote clock offset: -0.686 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 114.032 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 114.032 ms
Loss rate: 0.09%
```

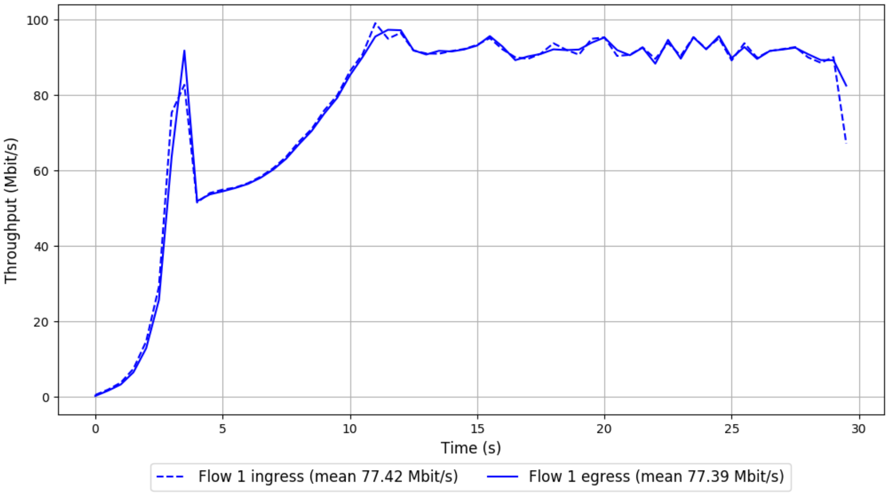
Run 9: Report of Vivace-latency — Data Link

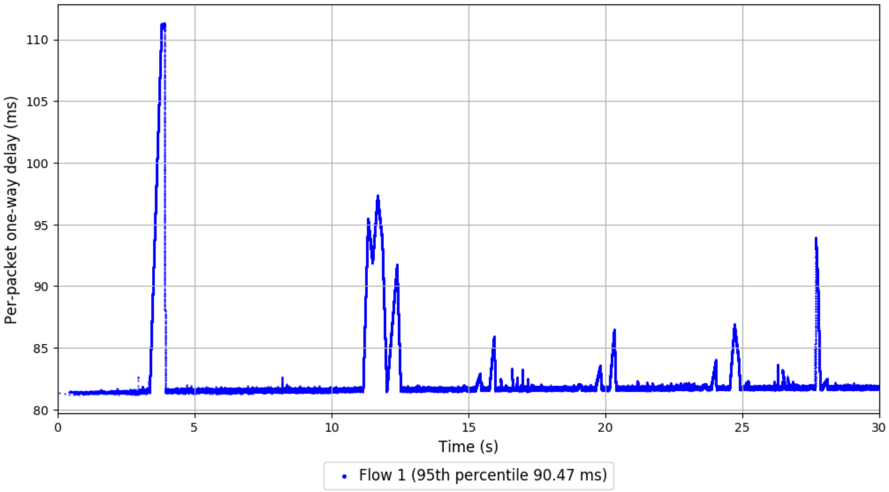




```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-20 04:10:05
End at: 2018-02-20 04:10:35
Local clock offset: -17.408 ms
Remote clock offset: -5.442 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.39 Mbit/s
95th percentile per-packet one-way delay: 90.466 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 77.39 Mbit/s
95th percentile per-packet one-way delay: 90.466 ms
Loss rate: 0.03%
```

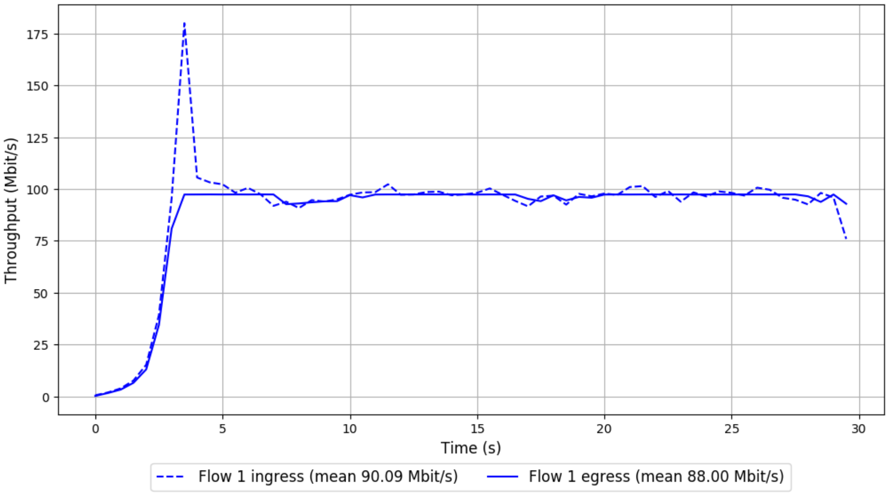
Run 10: Report of Vivace-latency — Data Link

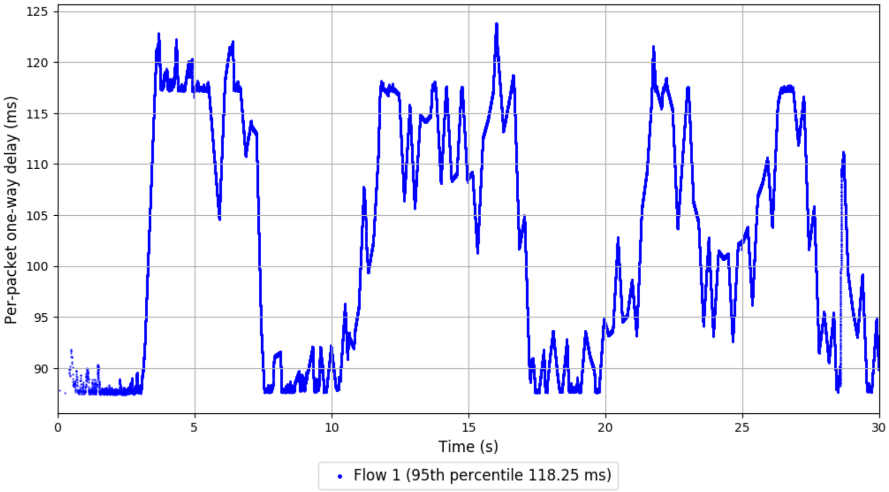




```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-20 01:04:03
End at: 2018-02-20 01:04:33
Local clock offset: -3.39 ms
Remote clock offset: 4.476 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.00 Mbit/s
95th percentile per-packet one-way delay: 118.246 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 88.00 Mbit/s
95th percentile per-packet one-way delay: 118.246 ms
Loss rate: 2.32%
```

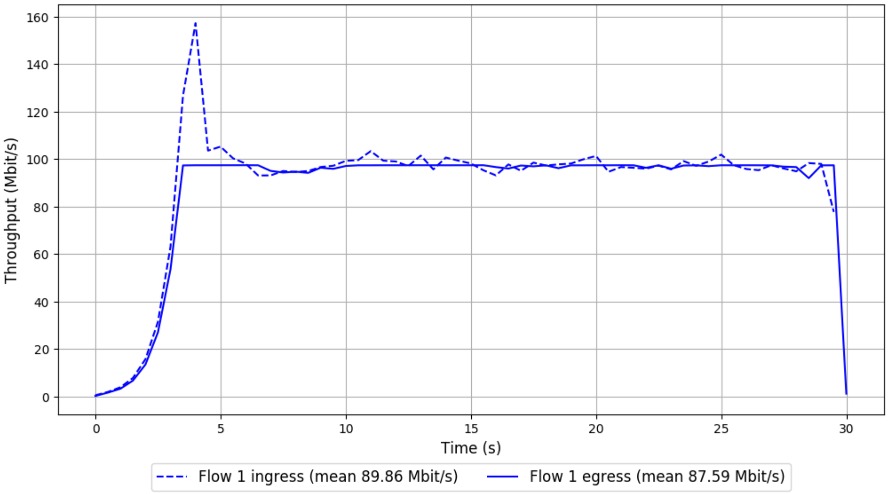
Run 1: Report of Vivace-loss — Data Link

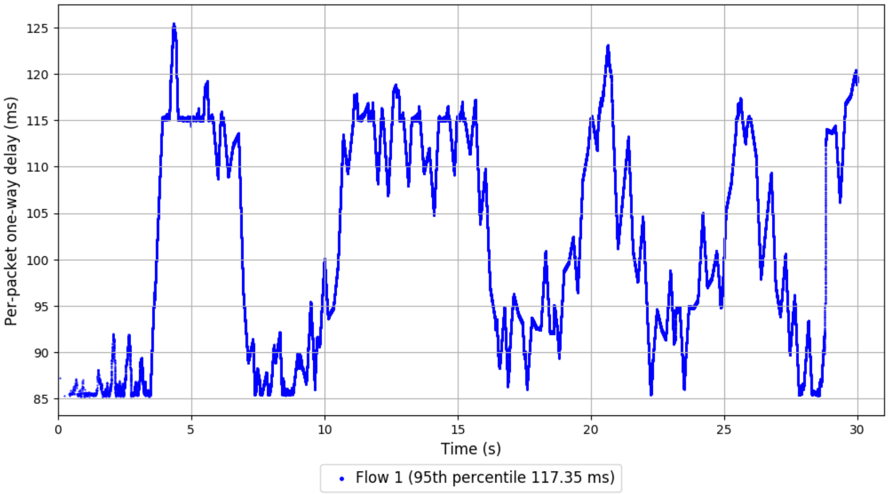




```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-20 01:26:09
End at: 2018-02-20 01:26:39
Local clock offset: -5.989 ms
Remote clock offset: 4.128 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 117.352 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 117.352 ms
Loss rate: 2.43%
```

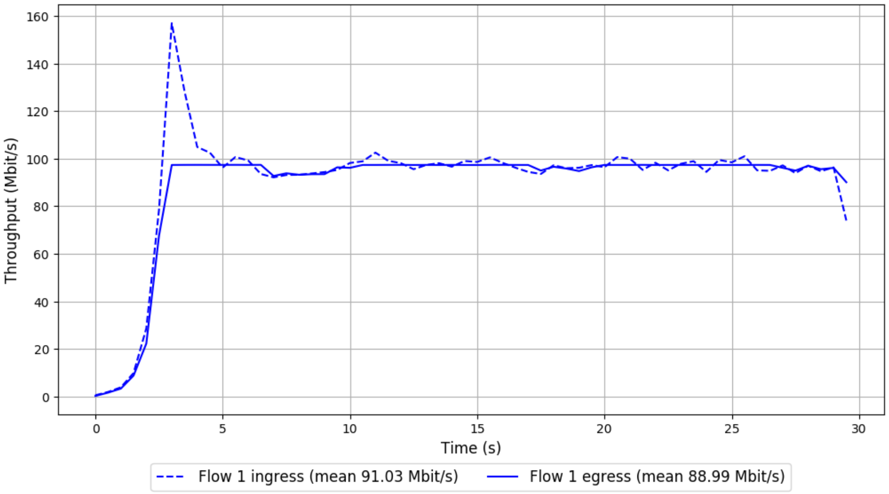
Run 2: Report of Vivace-loss — Data Link

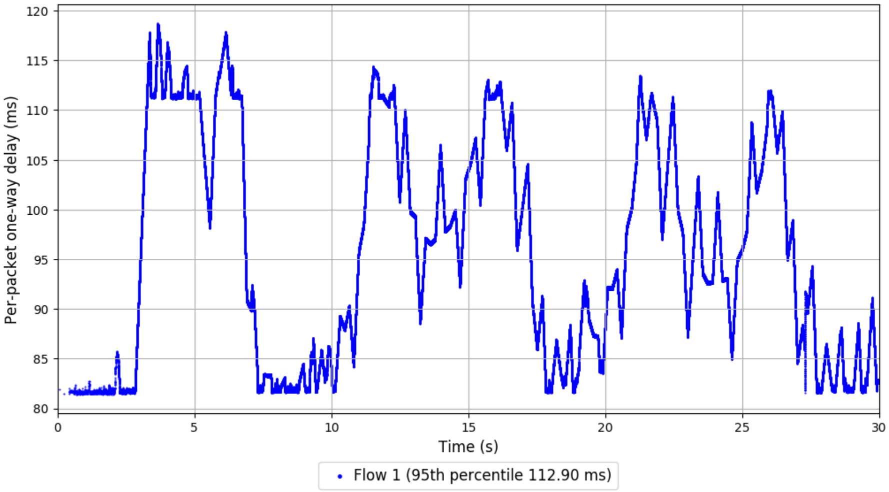




```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-20 01:48:25
End at: 2018-02-20 01:48:55
Local clock offset: -8.248 ms
Remote clock offset: 0.805 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.99 Mbit/s
95th percentile per-packet one-way delay: 112.901 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 88.99 Mbit/s
95th percentile per-packet one-way delay: 112.901 ms
Loss rate: 2.24%
```

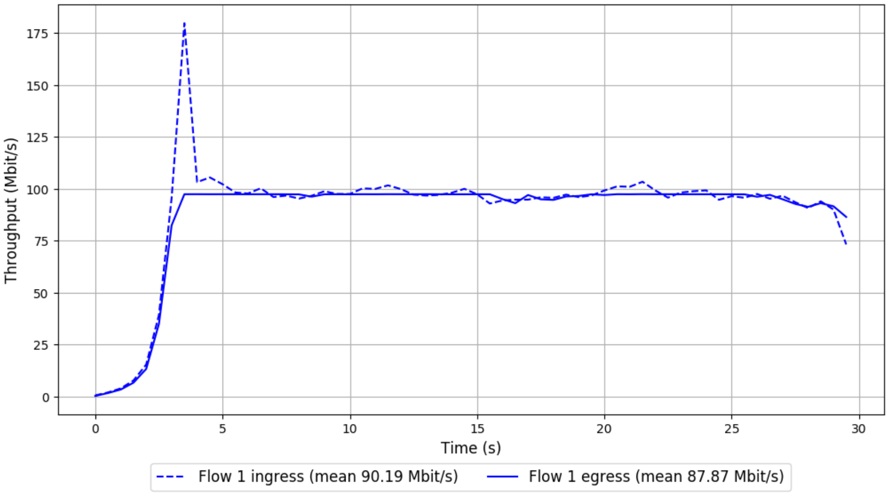
Run 3: Report of Vivace-loss — Data Link

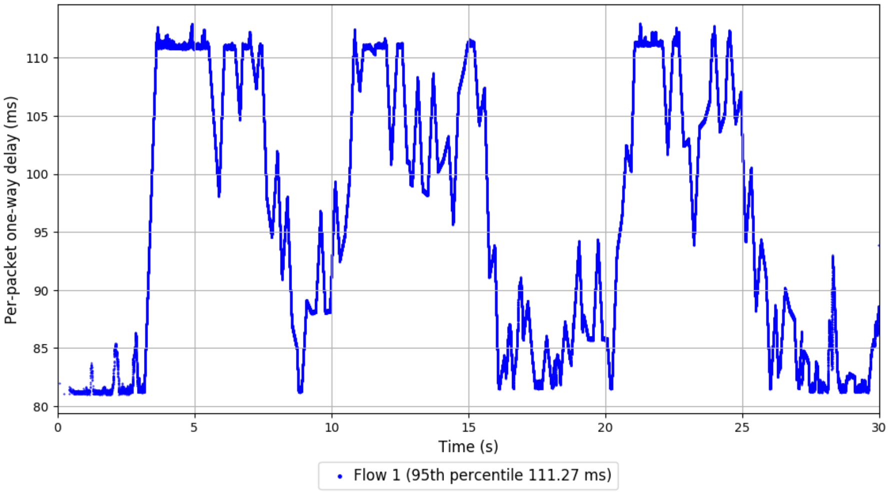




```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-20 02:10:35
End at: 2018-02-20 02:11:05
Local clock offset: -8.112 ms
Remote clock offset: 0.405 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.87 Mbit/s
95th percentile per-packet one-way delay: 111.274 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 87.87 Mbit/s
95th percentile per-packet one-way delay: 111.274 ms
Loss rate: 2.55%
```

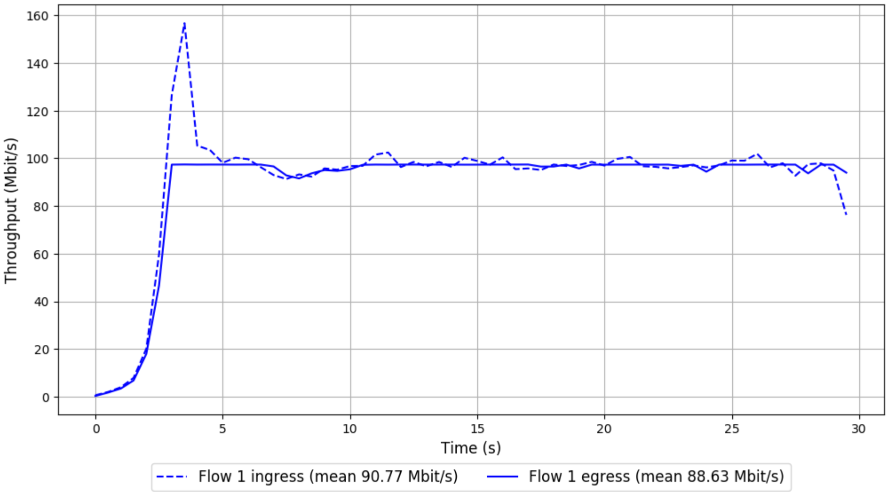
Run 4: Report of Vivace-loss — Data Link

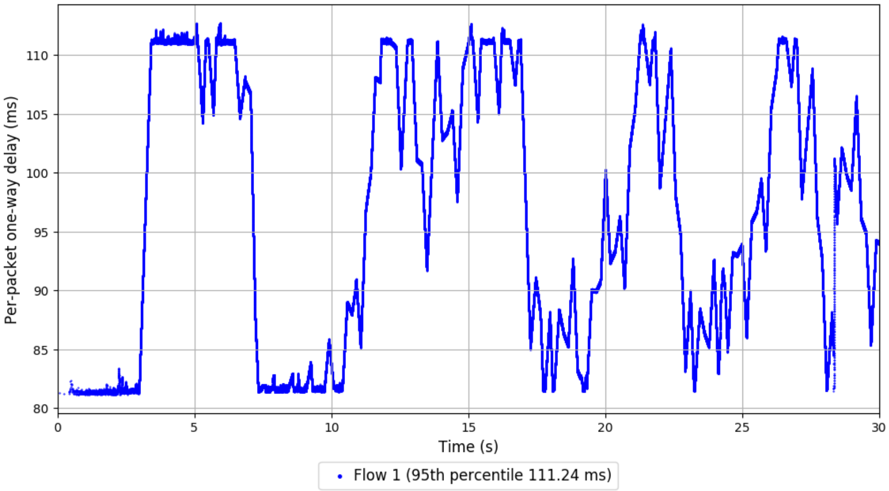




```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-20 02:32:36
End at: 2018-02-20 02:33:06
Local clock offset: -5.815 ms
Remote clock offset: 1.064 ms

# Below is generated by plot.py at 2018-02-20 05:15:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.63 Mbit/s
95th percentile per-packet one-way delay: 111.237 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 88.63 Mbit/s
95th percentile per-packet one-way delay: 111.237 ms
Loss rate: 2.31%
```

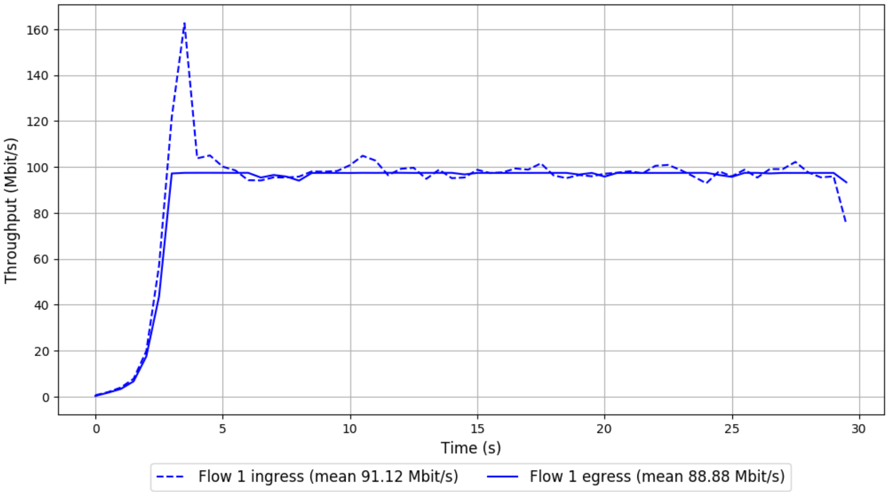
Run 5: Report of Vivace-loss — Data Link

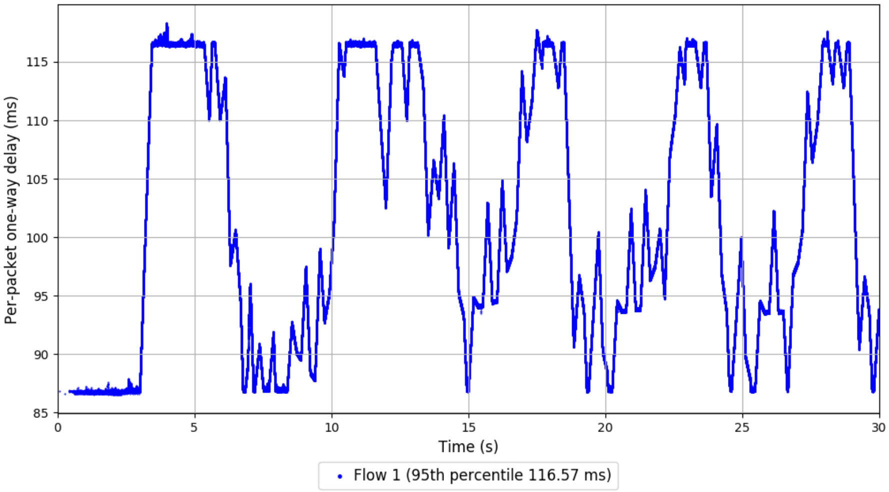




```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-20 02:54:37
End at: 2018-02-20 02:55:07
Local clock offset: -3.222 ms
Remote clock offset: 7.284 ms

# Below is generated by plot.py at 2018-02-20 05:15:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.88 Mbit/s
95th percentile per-packet one-way delay: 116.570 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 88.88 Mbit/s
95th percentile per-packet one-way delay: 116.570 ms
Loss rate: 2.44%
```

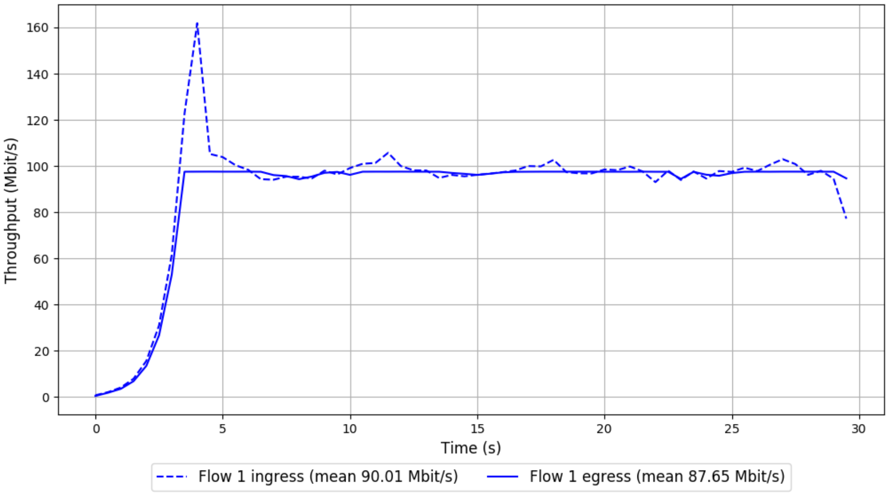
Run 6: Report of Vivace-loss — Data Link

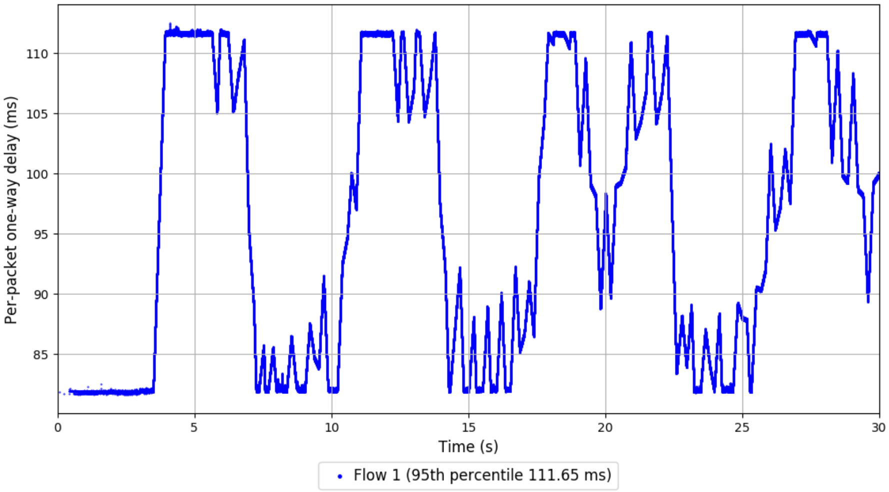




```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-20 03:16:40
End at: 2018-02-20 03:17:10
Local clock offset: -7.426 ms
Remote clock offset: 3.044 ms

# Below is generated by plot.py at 2018-02-20 05:15:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.65 Mbit/s
95th percentile per-packet one-way delay: 111.652 ms
Loss rate: 2.56%
-- Flow 1:
Average throughput: 87.65 Mbit/s
95th percentile per-packet one-way delay: 111.652 ms
Loss rate: 2.56%
```

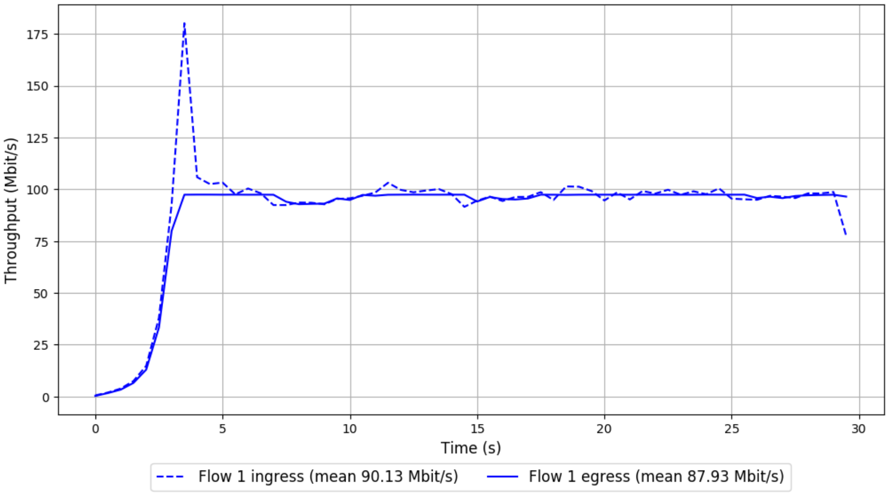
Run 7: Report of Vivace-loss — Data Link

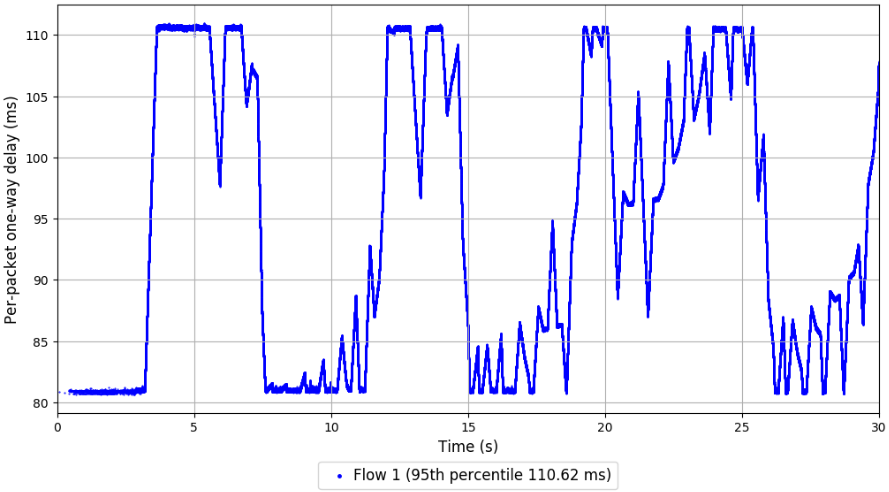




```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-20 03:38:44
End at: 2018-02-20 03:39:14
Local clock offset: -12.194 ms
Remote clock offset: -5.137 ms

# Below is generated by plot.py at 2018-02-20 05:16:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 110.625 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 87.93 Mbit/s
95th percentile per-packet one-way delay: 110.625 ms
Loss rate: 2.35%
```

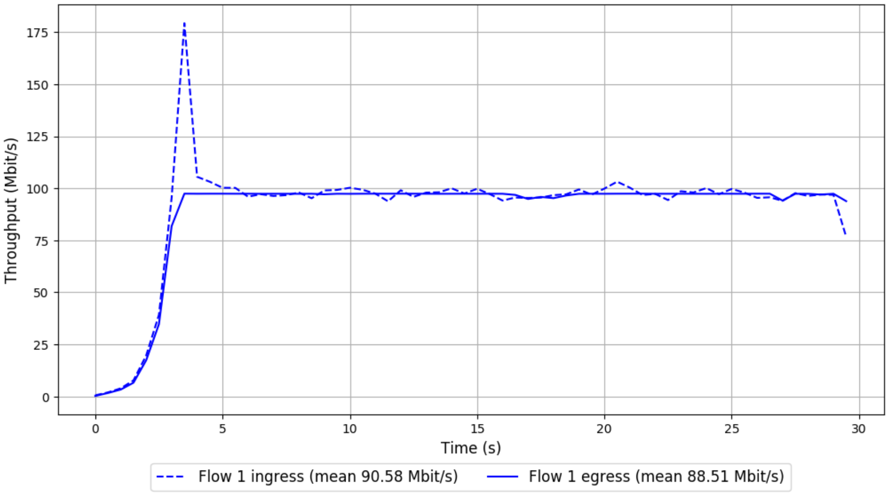
Run 8: Report of Vivace-loss — Data Link

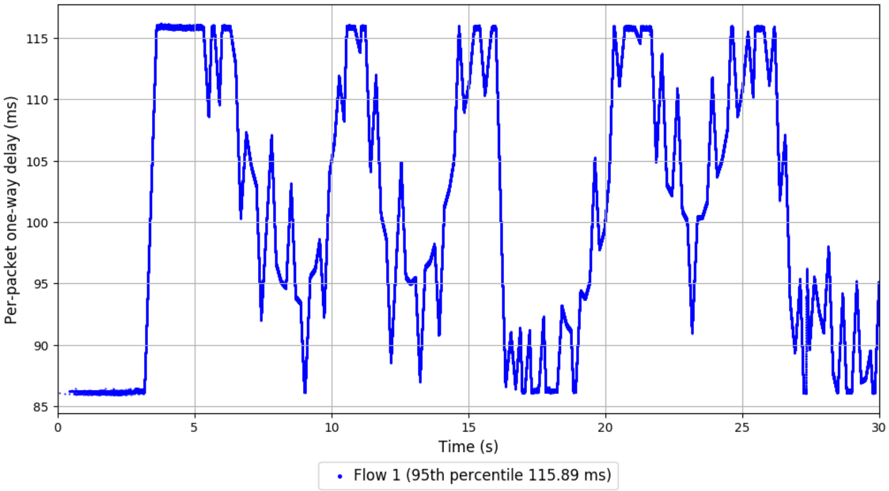




```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-20 04:01:07
End at: 2018-02-20 04:01:37
Local clock offset: -18.415 ms
Remote clock offset: -0.875 ms

# Below is generated by plot.py at 2018-02-20 05:16:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.51 Mbit/s
95th percentile per-packet one-way delay: 115.895 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 88.51 Mbit/s
95th percentile per-packet one-way delay: 115.895 ms
Loss rate: 2.26%
```

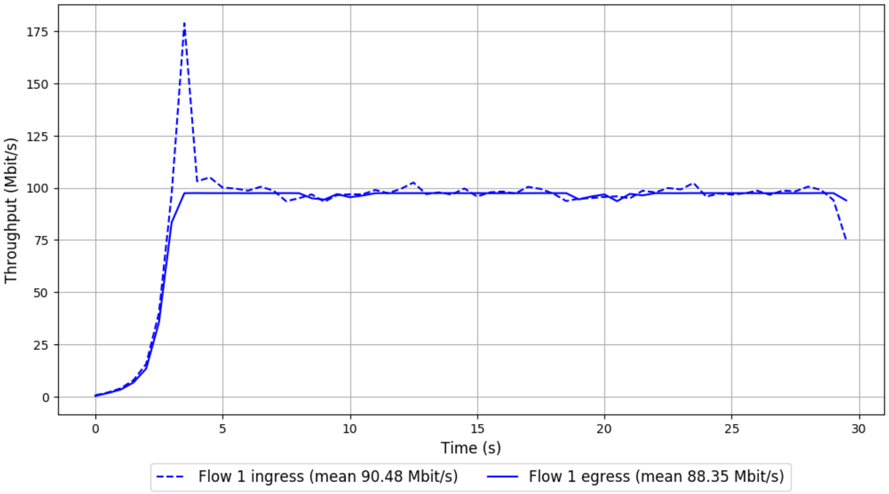
Run 9: Report of Vivace-loss — Data Link

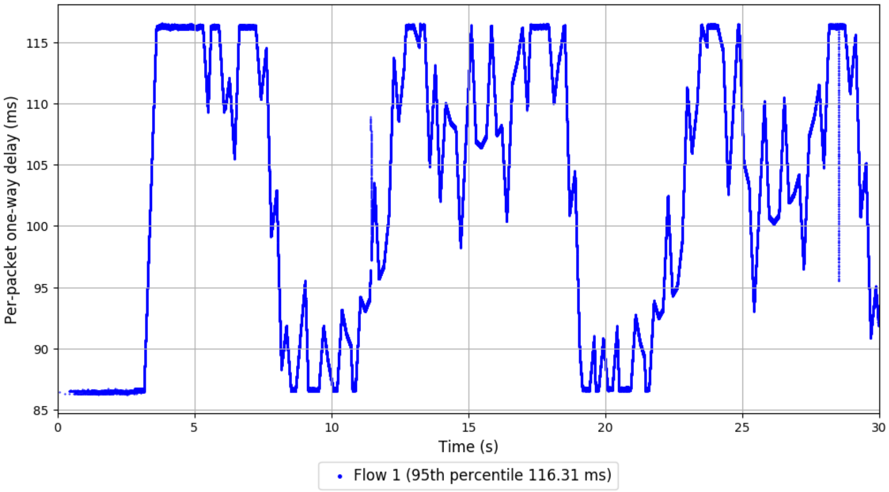




```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-20 04:23:34
End at: 2018-02-20 04:24:04
Local clock offset: -13.431 ms
Remote clock offset: -0.771 ms

# Below is generated by plot.py at 2018-02-20 05:16:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.35 Mbit/s
95th percentile per-packet one-way delay: 116.306 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 88.35 Mbit/s
95th percentile per-packet one-way delay: 116.306 ms
Loss rate: 2.34%
```

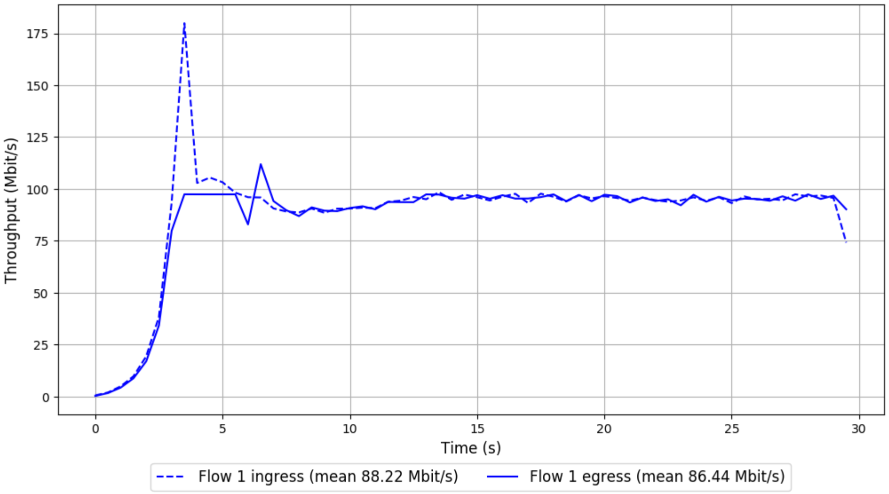
Run 10: Report of Vivace-loss — Data Link

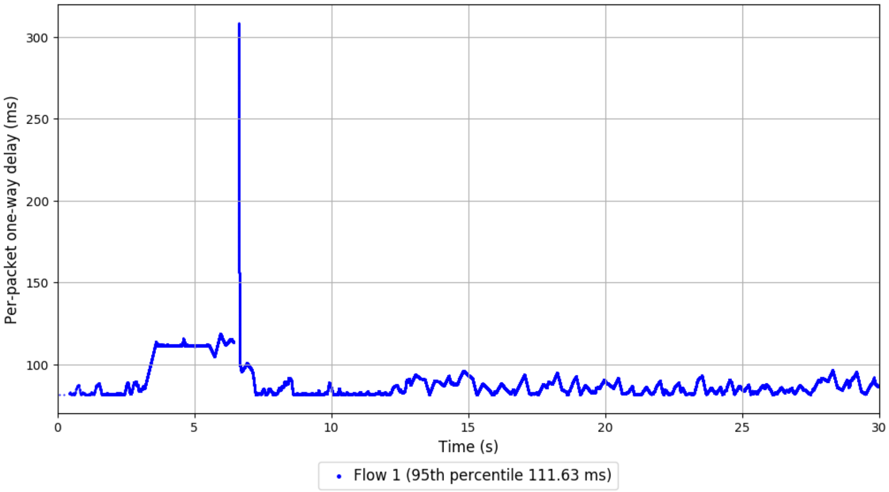




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-20 00:54:17
End at: 2018-02-20 00:54:47
Local clock offset: -4.067 ms
Remote clock offset: -2.346 ms

# Below is generated by plot.py at 2018-02-20 05:16:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 111.631 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 111.631 ms
Loss rate: 2.01%
```

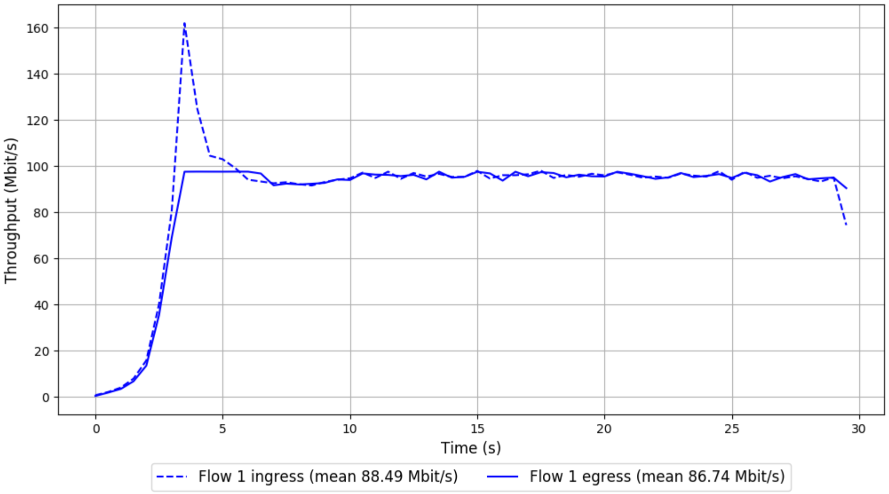
Run 1: Report of Vivace-LTE — Data Link

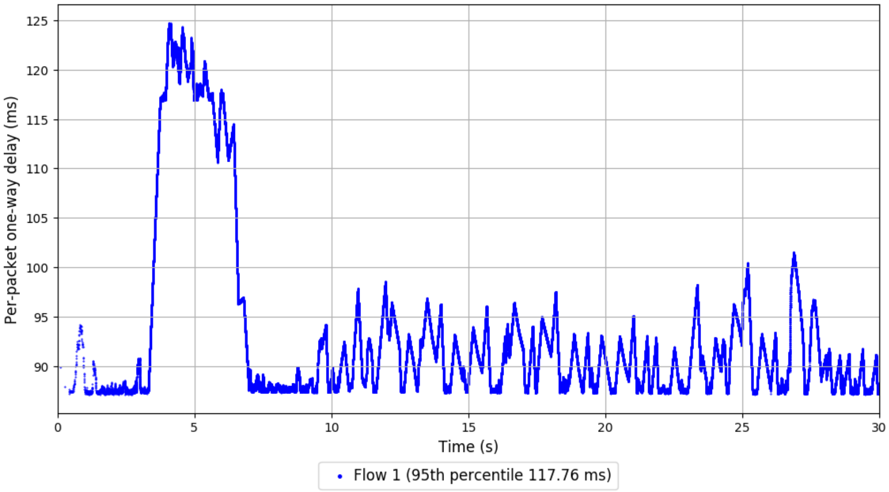




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-20 01:16:17
End at: 2018-02-20 01:16:47
Local clock offset: -2.867 ms
Remote clock offset: 5.413 ms

# Below is generated by plot.py at 2018-02-20 05:16:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.74 Mbit/s
95th percentile per-packet one-way delay: 117.758 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 86.74 Mbit/s
95th percentile per-packet one-way delay: 117.758 ms
Loss rate: 1.99%
```

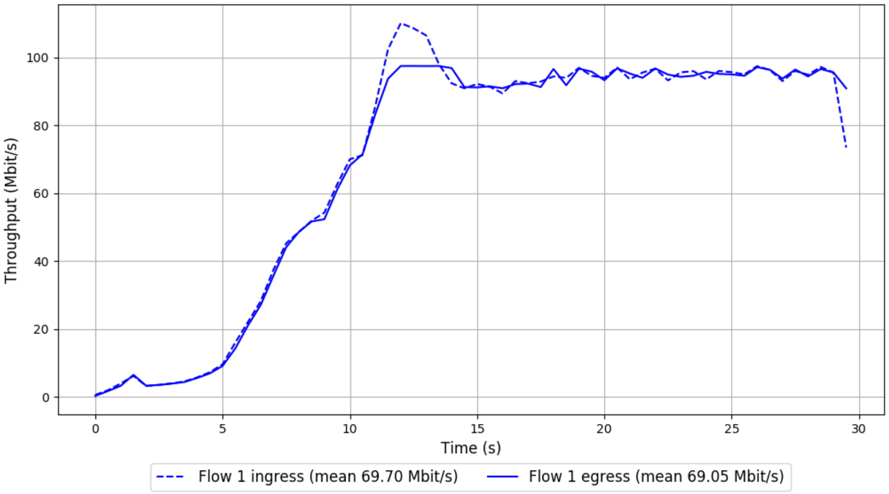
Run 2: Report of Vivace-LTE — Data Link

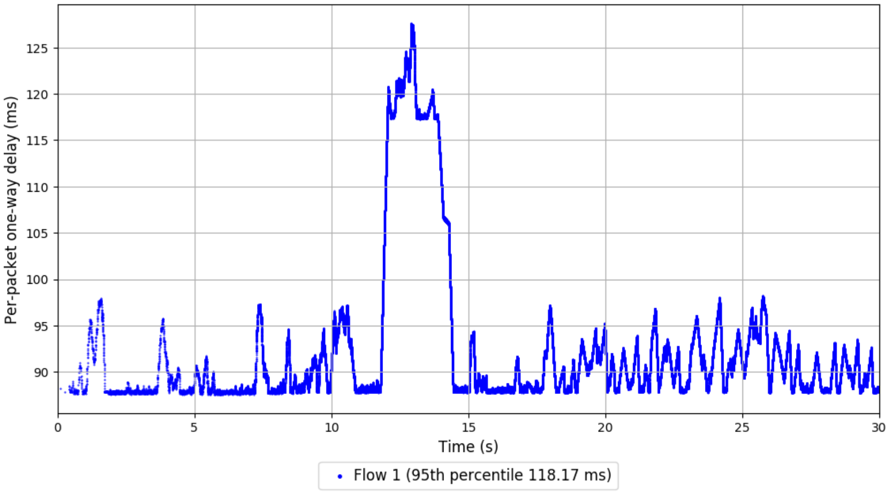




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-20 01:38:37
End at: 2018-02-20 01:39:07
Local clock offset: -7.586 ms
Remote clock offset: 6.174 ms

# Below is generated by plot.py at 2018-02-20 05:16:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.05 Mbit/s
95th percentile per-packet one-way delay: 118.172 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 69.05 Mbit/s
95th percentile per-packet one-way delay: 118.172 ms
Loss rate: 0.93%
```

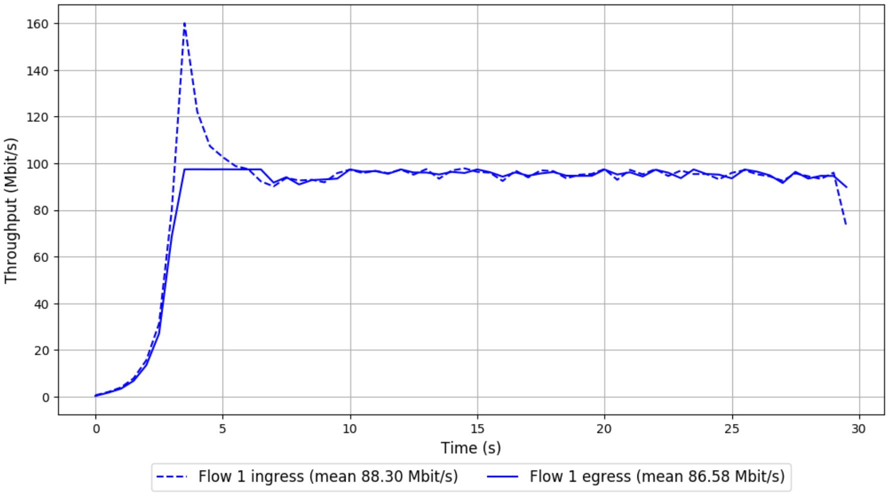
Run 3: Report of Vivace-LTE — Data Link

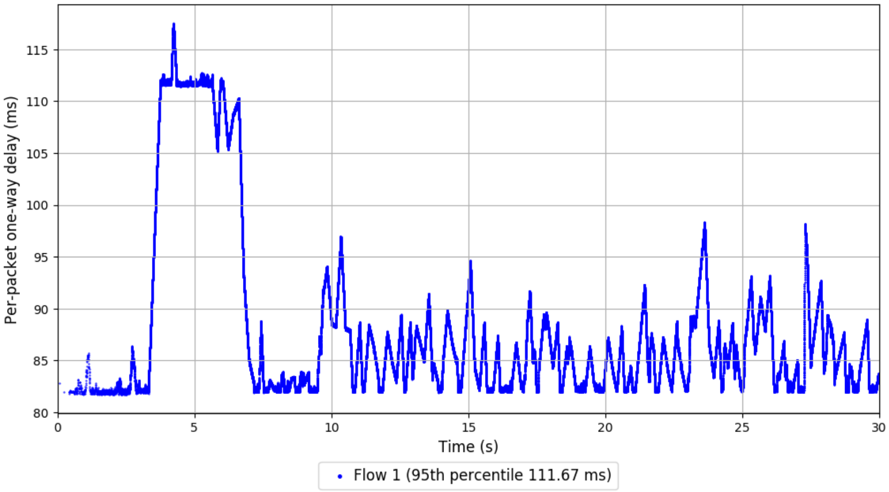




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-20 02:00:47
End at: 2018-02-20 02:01:17
Local clock offset: -8.015 ms
Remote clock offset: 1.093 ms

# Below is generated by plot.py at 2018-02-20 05:17:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 111.667 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 111.667 ms
Loss rate: 1.94%
```

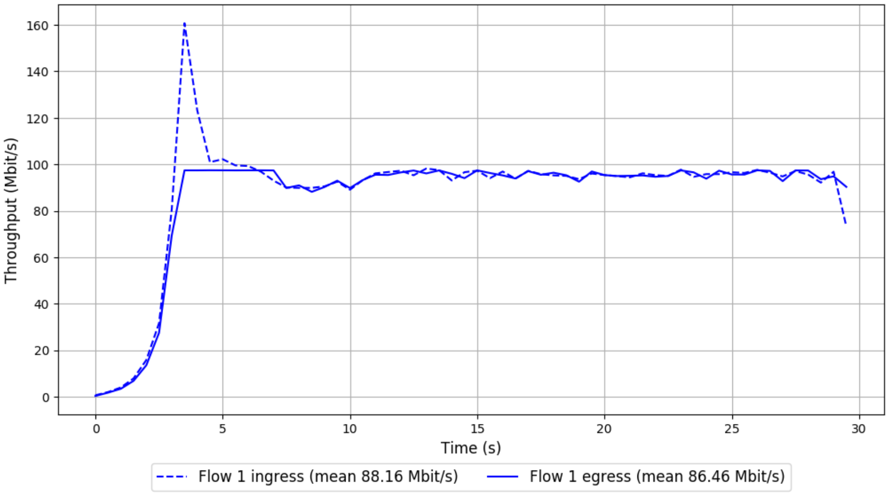
Run 4: Report of Vivace-LTE — Data Link

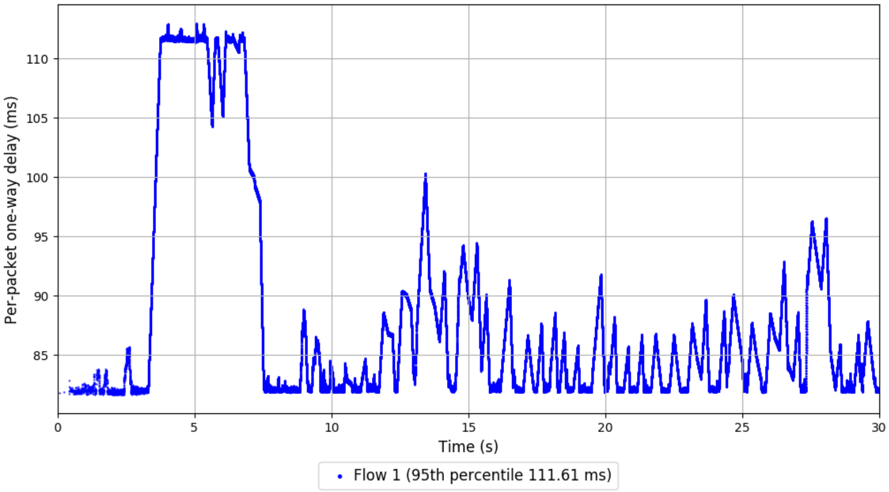




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-20 02:22:53
End at: 2018-02-20 02:23:23
Local clock offset: -8.441 ms
Remote clock offset: 1.595 ms

# Below is generated by plot.py at 2018-02-20 05:17:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 111.607 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 111.607 ms
Loss rate: 1.93%
```

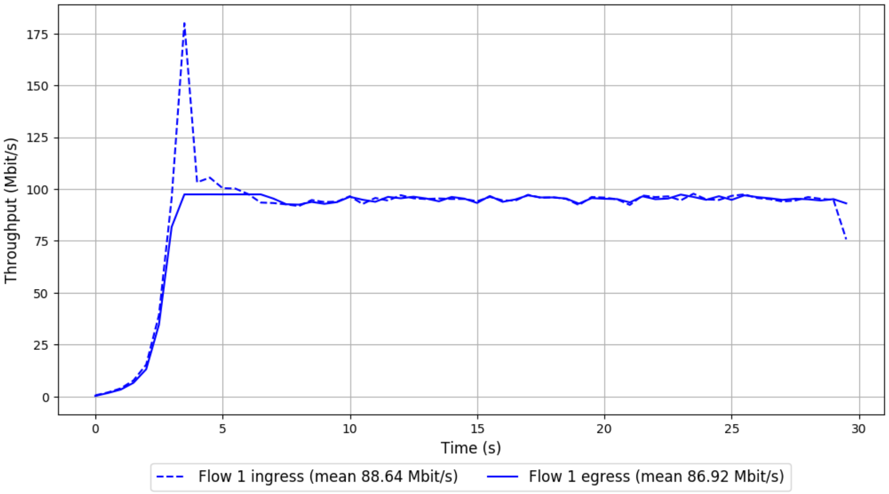
Run 5: Report of Vivace-LTE — Data Link

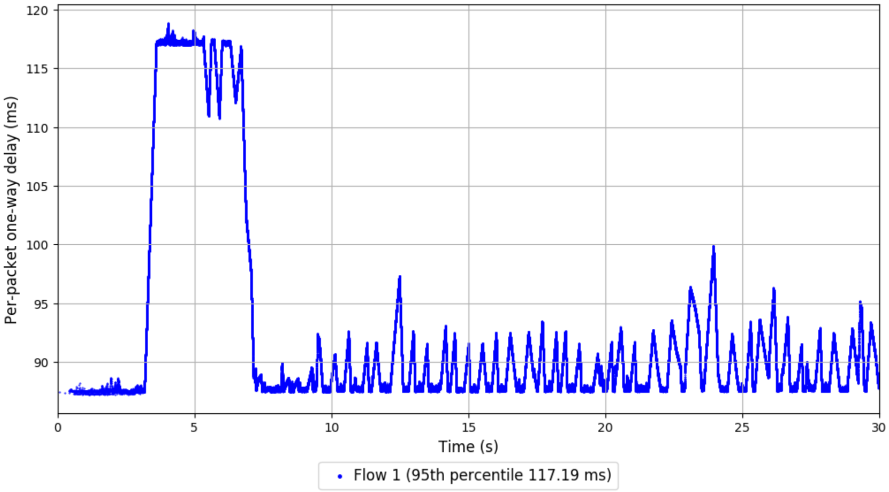




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-20 02:44:54
End at: 2018-02-20 02:45:24
Local clock offset: -3.925 ms
Remote clock offset: 6.984 ms

# Below is generated by plot.py at 2018-02-20 05:17:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.92 Mbit/s
95th percentile per-packet one-way delay: 117.187 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 86.92 Mbit/s
95th percentile per-packet one-way delay: 117.187 ms
Loss rate: 1.95%
```

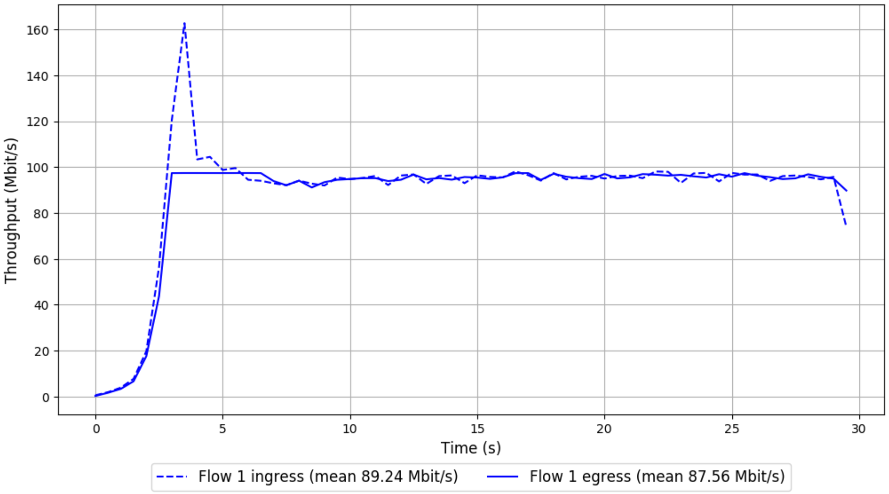
Run 6: Report of Vivace-LTE — Data Link

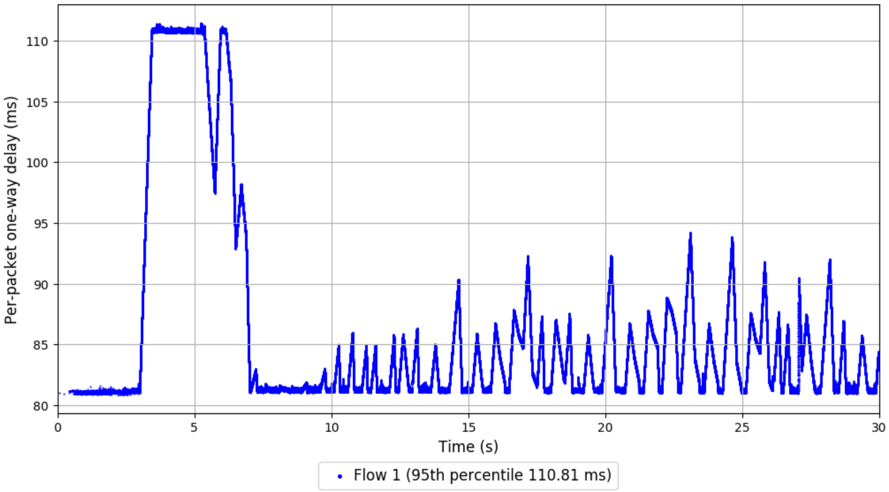




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-20 03:06:56
End at: 2018-02-20 03:07:26
Local clock offset: -5.85 ms
Remote clock offset: 1.893 ms

# Below is generated by plot.py at 2018-02-20 05:17:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 110.806 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 110.806 ms
Loss rate: 1.88%
```

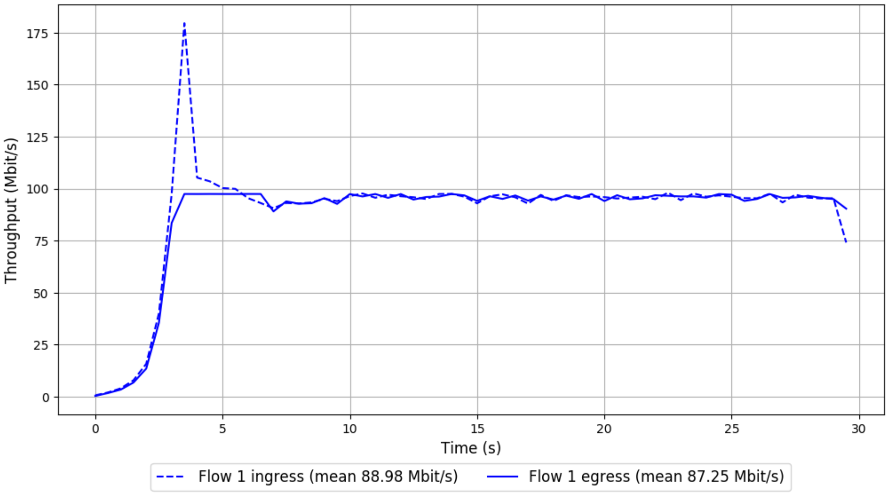
Run 7: Report of Vivace-LTE — Data Link

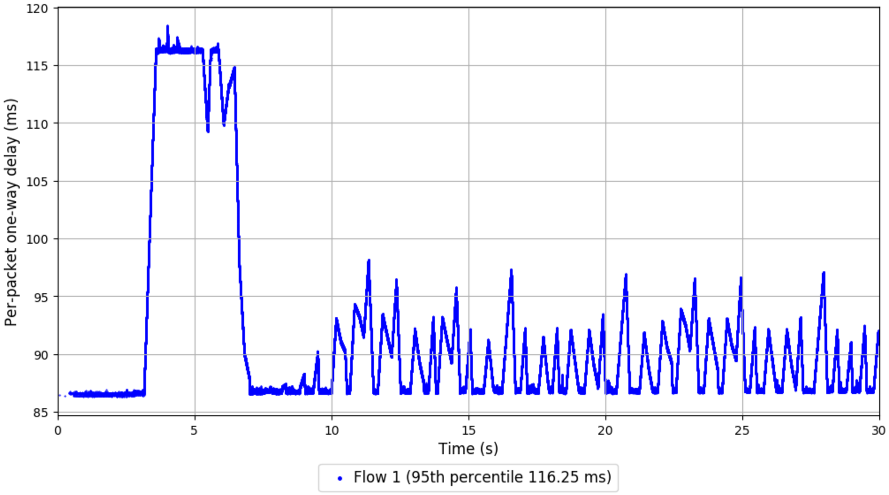




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-20 03:29:00
End at: 2018-02-20 03:29:30
Local clock offset: -8.214 ms
Remote clock offset: 1.921 ms

# Below is generated by plot.py at 2018-02-20 05:17:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 116.255 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 116.255 ms
Loss rate: 1.93%
```

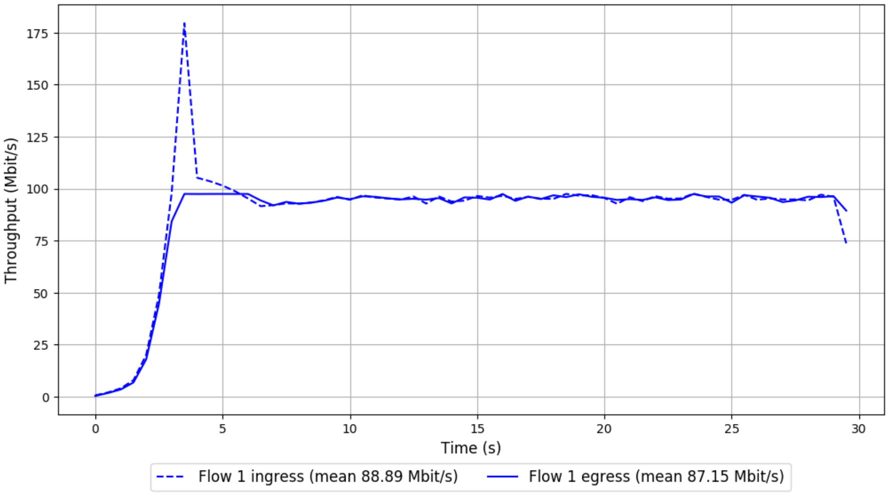
Run 8: Report of Vivace-LTE — Data Link

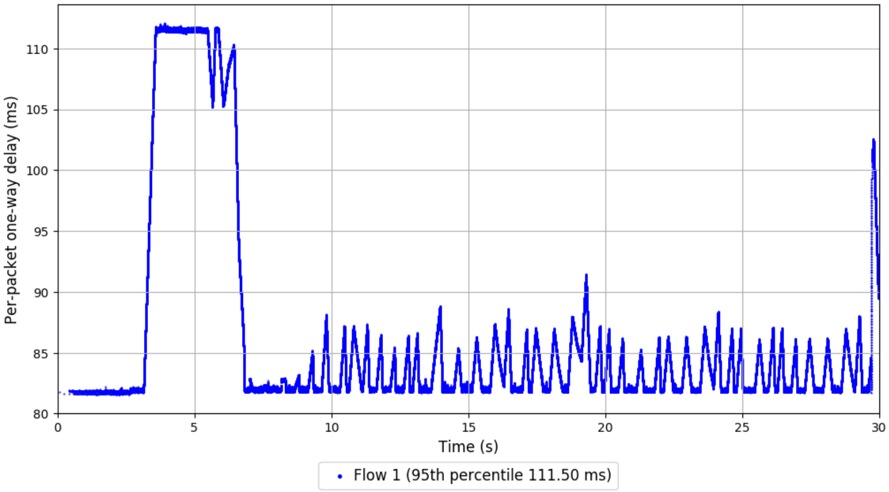




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-20 03:51:24
End at: 2018-02-20 03:51:54
Local clock offset: -16.585 ms
Remote clock offset: -5.924 ms

# Below is generated by plot.py at 2018-02-20 05:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 111.496 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 111.496 ms
Loss rate: 1.94%
```

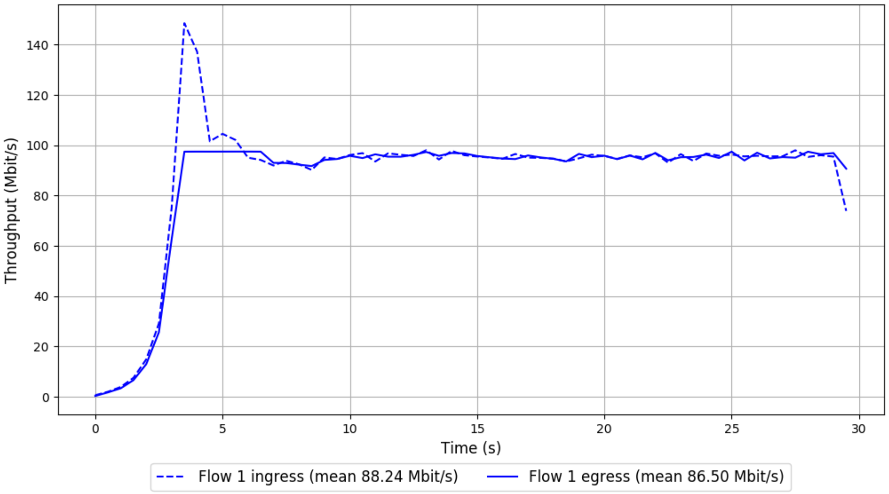
Run 9: Report of Vivace-LTE — Data Link



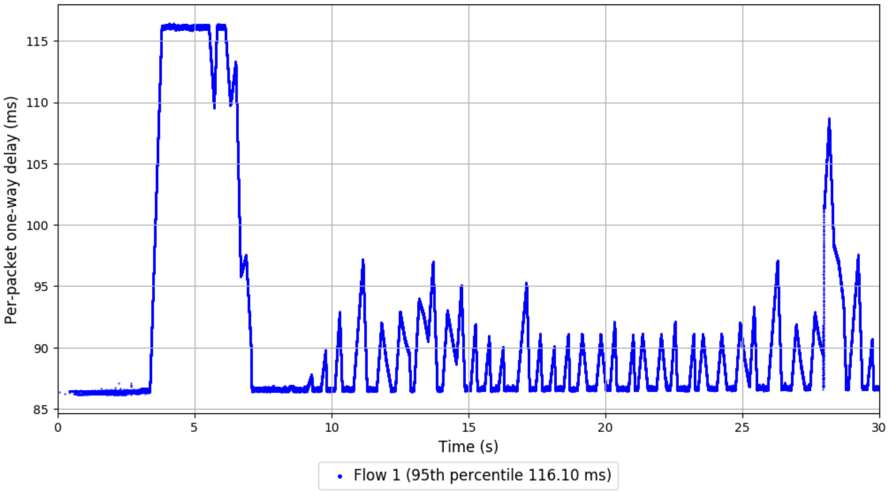


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-20 04:13:50
End at: 2018-02-20 04:14:20
Local clock offset: -15.67 ms
Remote clock offset: -0.547 ms

# Below is generated by plot.py at 2018-02-20 05:17:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 116.099 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 116.099 ms
Loss rate: 1.97%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
0
20
40
60
80
100
120
140
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 88.24 Mbit/s)
Flow 1 egress (mean 86.50 Mbit/s)



Per-packet one-way delay (ms)
85
90
95
100
105
110
115
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 116.10 ms)