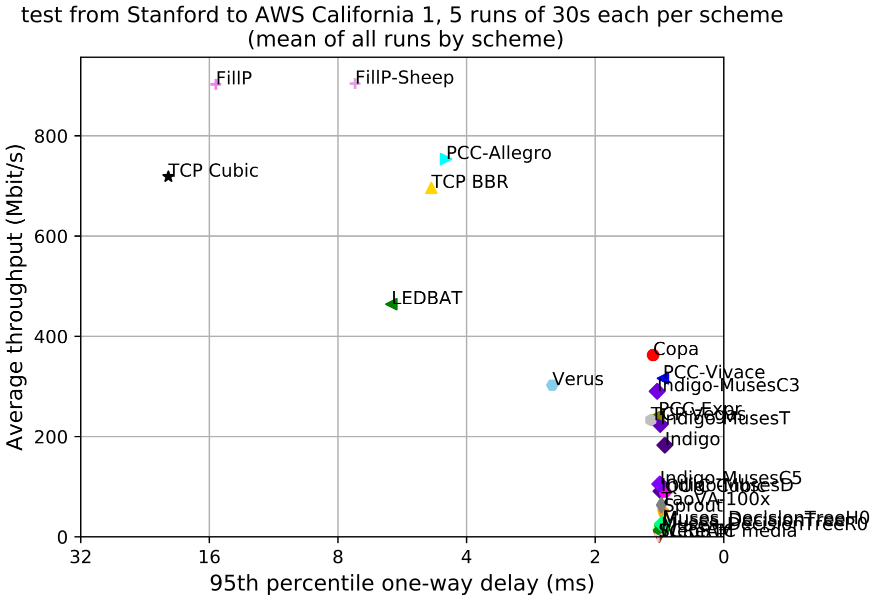
Pantheon Report

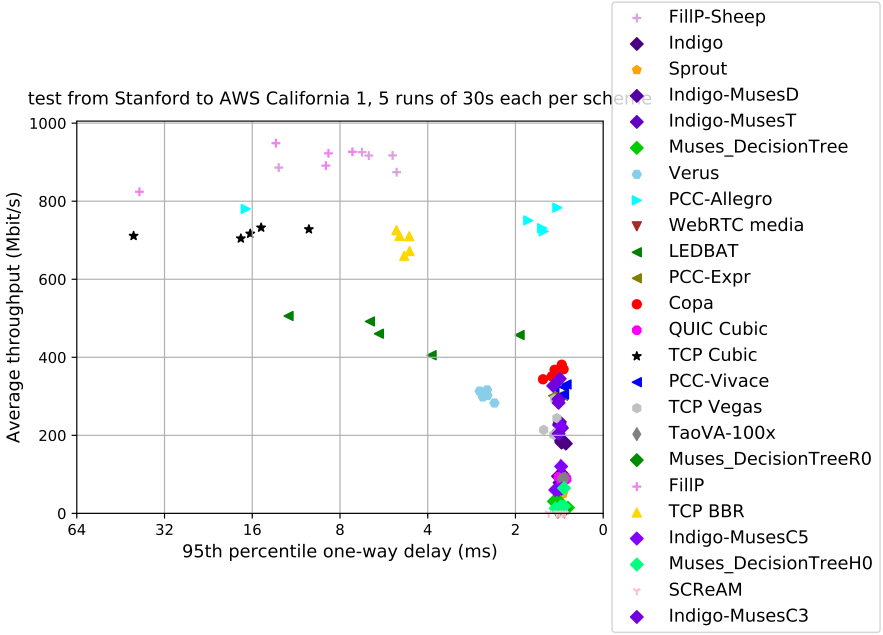
Generated at 2019-07-12 13:56:38 (UTC).
Data path: Stanford on `eno1` (*remote*) →AWS California 1 on `ens5` (*local*).
Repeated the test of 24 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1041-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

```
Git summary:
branch: muses @ 2076e1149a241f3edb4365d686df32342bf9561f
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 8bb93ffff2b107204a92d8b72449fc0c55e15f00
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 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 @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

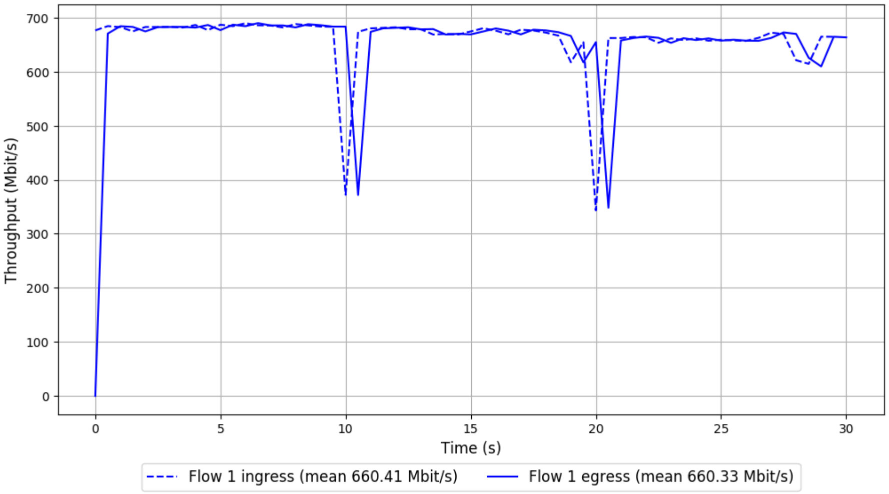

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
(mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
32
16
8
4
2
0
FillP
FillP-Sheep
TCP Cubic
PCC-Allegro
TCP BBR
LEDBAT
Copa
Verus
PCC-Vivace
Indigo-MusesC3
PCC-Expr
Indigo-MusesT
Indigo
Indigo-MusesC5
Indigo-MusesD
TaoVA-100x
Sprout
Muses_DecisionTreeH0
Muses_DecisionTreeR0
WebRTC media

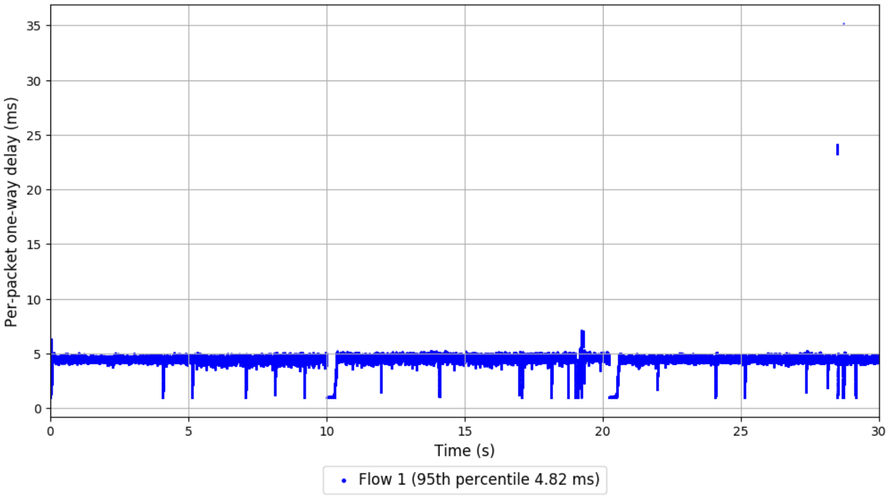

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
1000
64
32
16
8
4
2
0
FillP-Sheep
Indigo
Sprout
Indigo-MusesD
Indigo-MusesT
Muses_DecisionTree
Verus
PCC-Allegro
WebRTC media
LEDBAT
PCC-Expr
Copa
QUIC Cubic
TCP Cubic
PCC-Vivace
TCP Vegas
TaoVA-100x
Muses_DecisionTreeR0
FillP
TCP BBR
Indigo-MusesC5
Muses_DecisionTreeH0
SCReAM
Indigo-MusesC3

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	696.06	4.84	0.02
Copa	5	362.64	1.10	0.01
TCP Cubic	5	718.51	19.95	0.03
FillP	5	902.66	15.45	0.11
FillP-Sheep	5	904.13	7.29	0.01
Indigo	5	182.86	0.92	0.01
Indigo-MusesC3	5	290.33	1.04	0.00
Indigo-MusesC5	5	105.23	1.00	0.01
Indigo-MusesD	5	91.02	0.98	0.01
Indigo-MusesT	5	224.26	0.99	0.01
LEDBAT	5	464.08	6.00	0.01
Muses_DecisionTree	5	21.35	0.95	0.00
Muses_DecisionTreeH0	5	25.72	0.96	0.00
Muses_DecisionTreeR0	5	13.40	0.97	0.01
PCC-Allegro	5	753.64	4.47	0.06
PCC-Expr	5	242.79	1.02	0.01
QUIC Cubic	5	89.64	0.91	0.01
SCReAM	5	0.22	1.02	0.05
Sprout	5	50.23	0.94	0.02
TaoVA-100x	5	63.35	0.97	0.01
TCP Vegas	5	232.89	1.14	0.00
Verus	5	302.56	2.52	0.00
PCC-Vivace	5	316.11	0.95	0.01
WebRTC media	5	0.05	1.00	0.01

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-12 10:33:12
End at: 2019-07-12 10:33:42
Local clock offset: 6.646 ms
Remote clock offset: 3.255 ms

# Below is generated by plot.py at 2019-07-12 13:04:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 660.33 Mbit/s
95th percentile per-packet one-way delay: 4.816 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 660.33 Mbit/s
95th percentile per-packet one-way delay: 4.816 ms
Loss rate: 0.02%
```

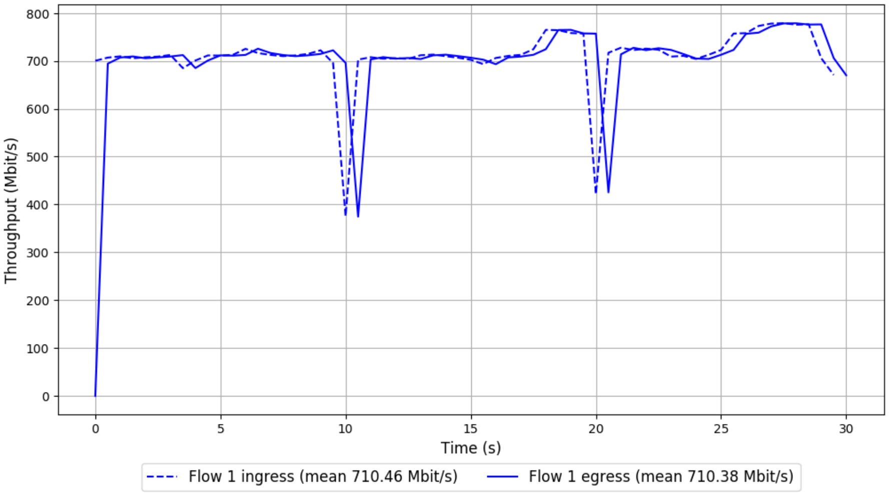
Run 1: Report of TCP BBR — Data Link

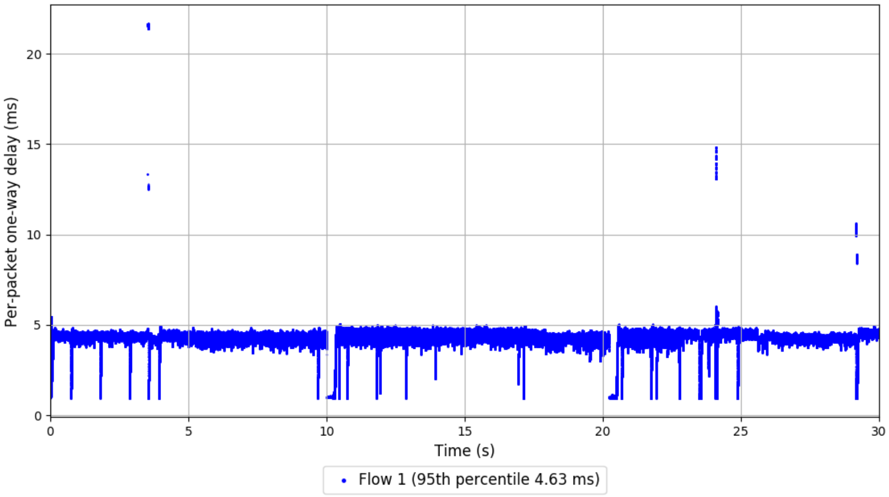




```
Run 2: Statistics of TCP BBR

Start at: 2019-07-12 11:06:43
End at: 2019-07-12 11:07:13
Local clock offset: 5.251 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-07-12 13:05:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.38 Mbit/s
95th percentile per-packet one-way delay: 4.627 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 710.38 Mbit/s
95th percentile per-packet one-way delay: 4.627 ms
Loss rate: 0.02%
```

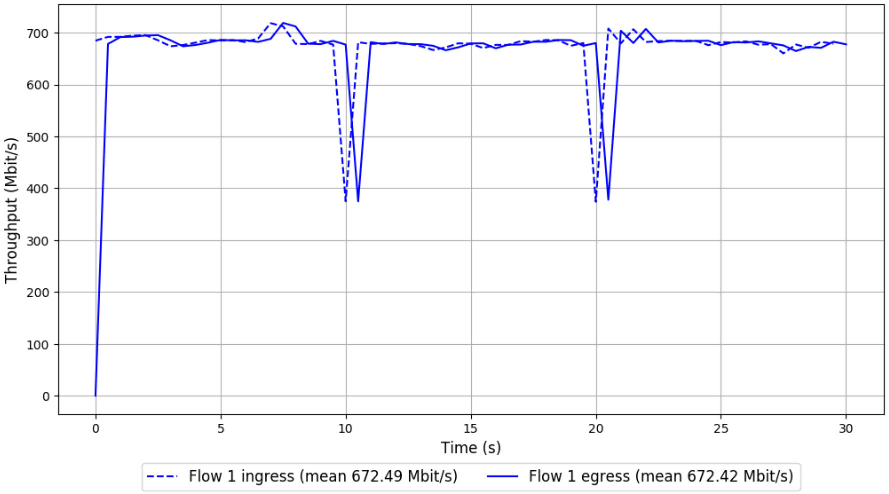
Run 2: Report of TCP BBR — Data Link

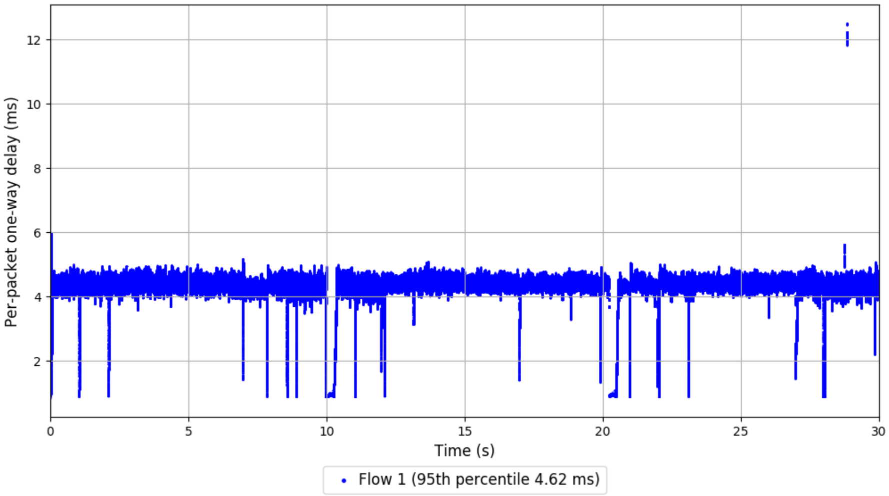




```
Run 3: Statistics of TCP BBR

Start at: 2019-07-12 11:40:15
End at: 2019-07-12 11:40:45
Local clock offset: 4.862 ms
Remote clock offset: -0.581 ms

# Below is generated by plot.py at 2019-07-12 13:05:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 672.42 Mbit/s
95th percentile per-packet one-way delay: 4.617 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 672.42 Mbit/s
95th percentile per-packet one-way delay: 4.617 ms
Loss rate: 0.02%
```

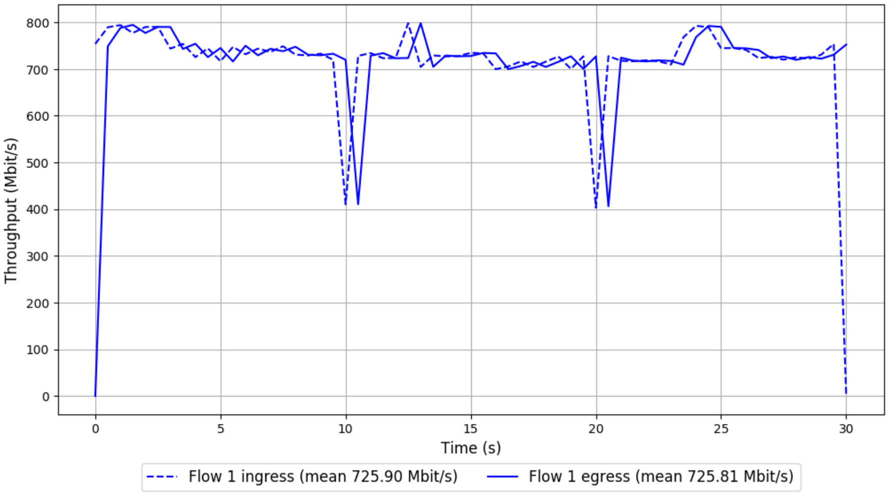
Run 3: Report of TCP BBR — Data Link

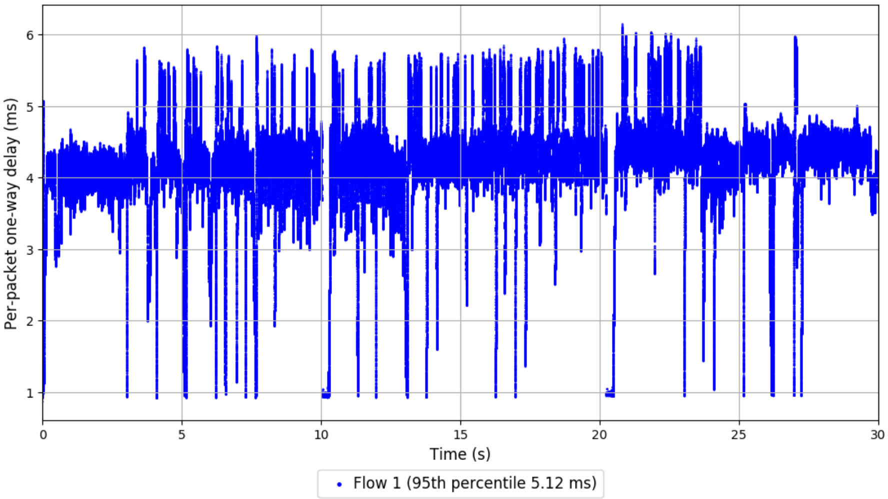




```
Run 4: Statistics of TCP BBR

Start at: 2019-07-12 12:13:46
End at: 2019-07-12 12:14:16
Local clock offset: 5.1 ms
Remote clock offset: 2.432 ms

# Below is generated by plot.py at 2019-07-12 13:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 725.81 Mbit/s
95th percentile per-packet one-way delay: 5.122 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 725.81 Mbit/s
95th percentile per-packet one-way delay: 5.122 ms
Loss rate: 0.02%
```

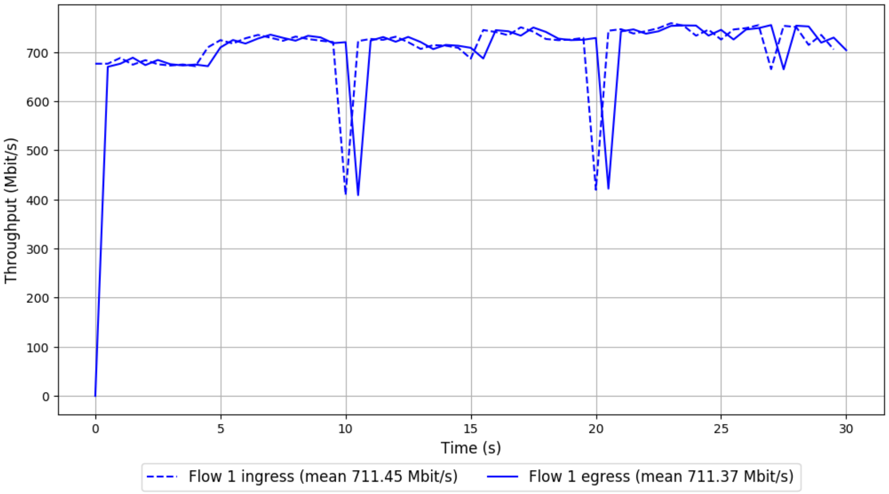
Run 4: Report of TCP BBR — Data Link

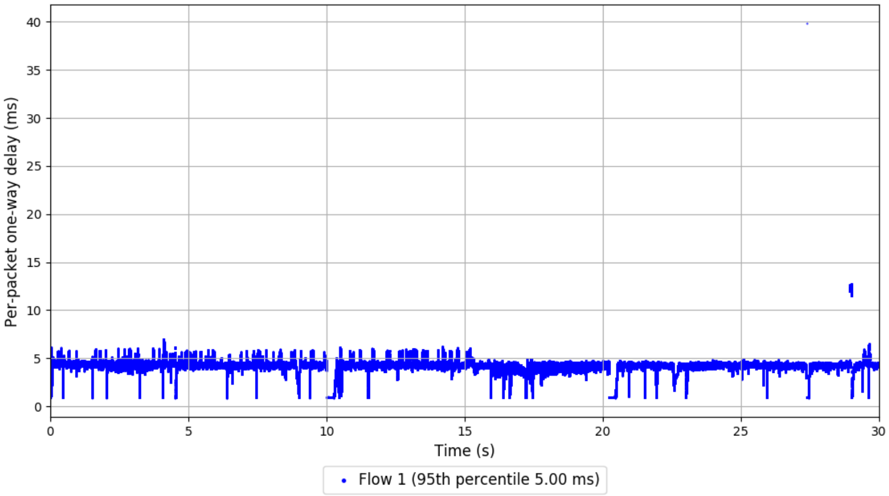




```
Run 5: Statistics of TCP BBR

Start at: 2019-07-12 12:47:21
End at: 2019-07-12 12:47:51
Local clock offset: 5.269 ms
Remote clock offset: 3.818 ms

# Below is generated by plot.py at 2019-07-12 13:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.37 Mbit/s
95th percentile per-packet one-way delay: 5.000 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 711.37 Mbit/s
95th percentile per-packet one-way delay: 5.000 ms
Loss rate: 0.02%
```

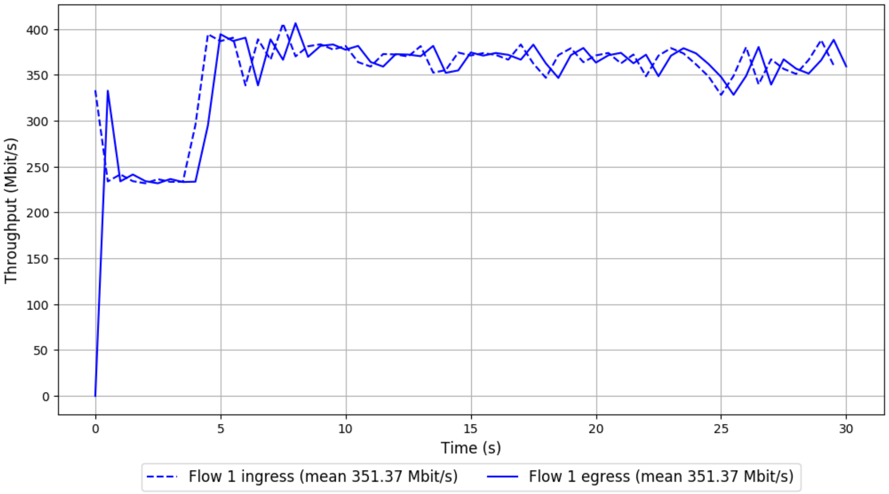
Run 5: Report of TCP BBR — Data Link

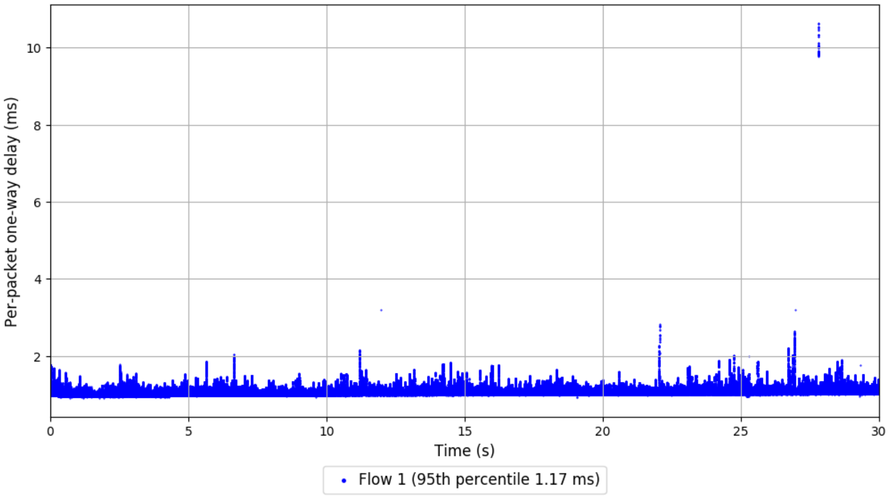




```
Run 1: Statistics of Copa

Start at: 2019-07-12 10:05:47
End at: 2019-07-12 10:06:17
Local clock offset: 6.79 ms
Remote clock offset: 3.464 ms

# Below is generated by plot.py at 2019-07-12 13:05:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 351.37 Mbit/s
95th percentile per-packet one-way delay: 1.171 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 351.37 Mbit/s
95th percentile per-packet one-way delay: 1.171 ms
Loss rate: 0.01%
```

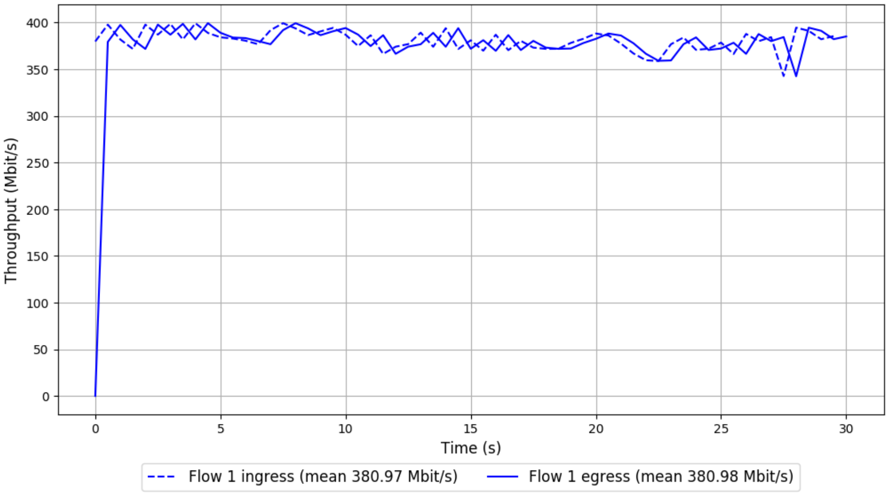
Run 1: Report of Copa — Data Link

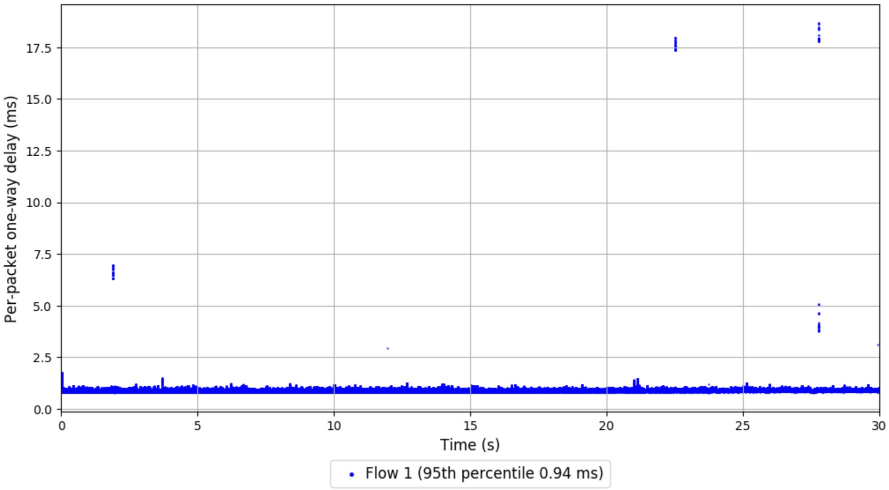




```
Run 2: Statistics of Copa

Start at: 2019-07-12 10:38:56
End at: 2019-07-12 10:39:26
Local clock offset: 6.177 ms
Remote clock offset: 3.354 ms

# Below is generated by plot.py at 2019-07-12 13:05:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.98 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 380.98 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.00%
```

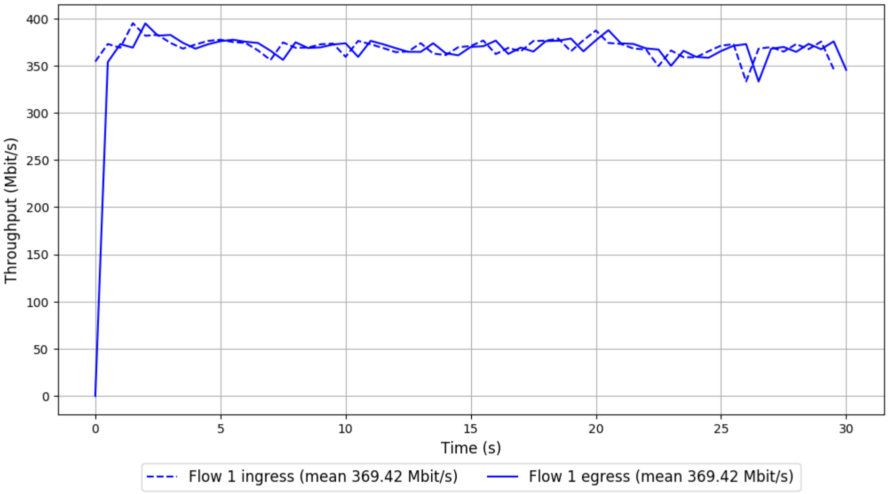
Run 2: Report of Copa — Data Link

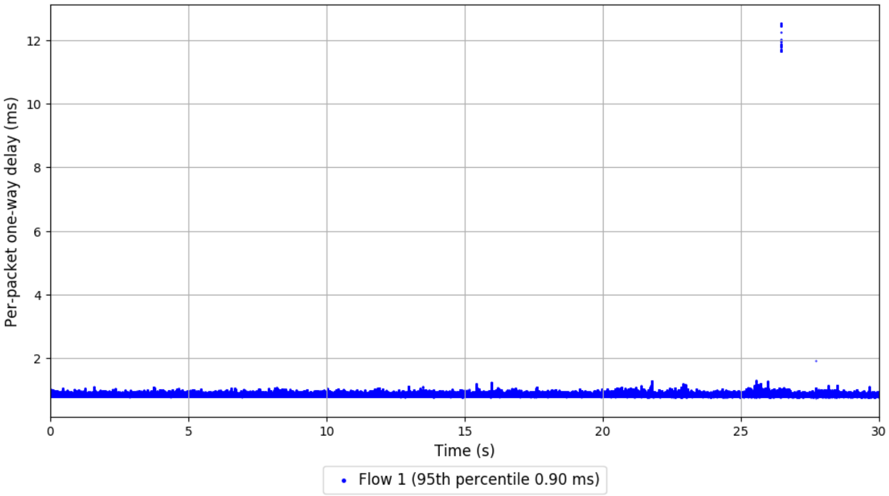




```
Run 3: Statistics of Copa

Start at: 2019-07-12 11:12:30
End at: 2019-07-12 11:13:00
Local clock offset: 4.964 ms
Remote clock offset: -0.439 ms

# Below is generated by plot.py at 2019-07-12 13:05:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 369.42 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 369.42 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.01%
```

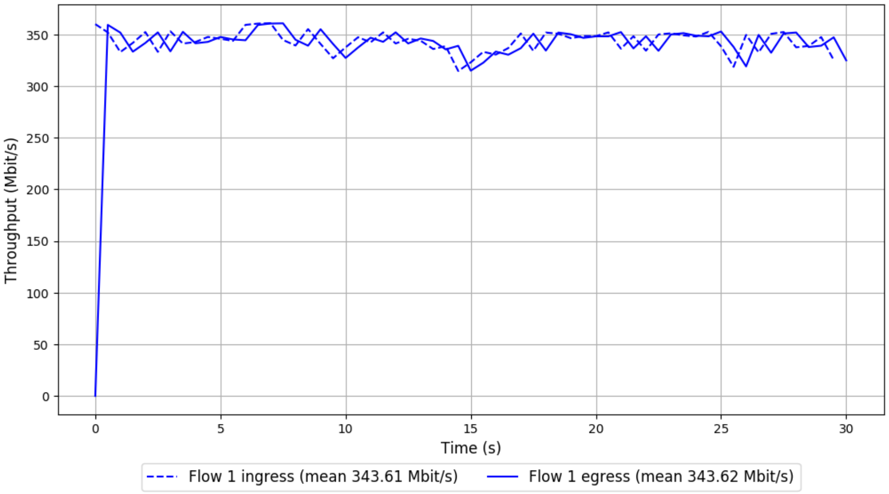
Run 3: Report of Copa — Data Link

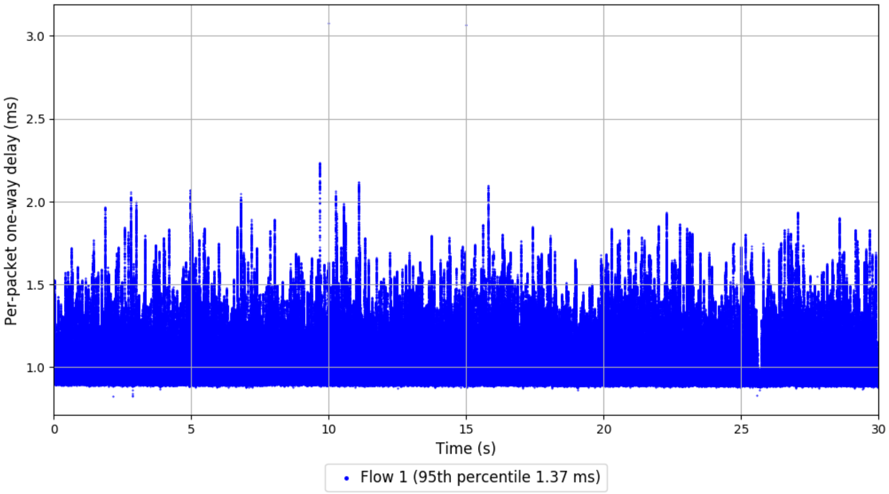




```
Run 4: Statistics of Copa

Start at: 2019-07-12 11:45:58
End at: 2019-07-12 11:46:28
Local clock offset: 4.92 ms
Remote clock offset: -0.58 ms

# Below is generated by plot.py at 2019-07-12 13:12:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 343.62 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 343.62 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.01%
```

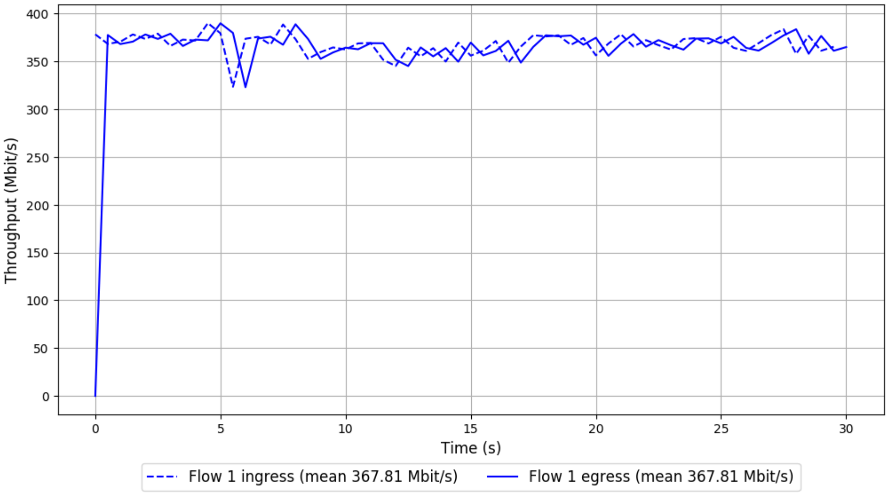
Run 4: Report of Copa — Data Link

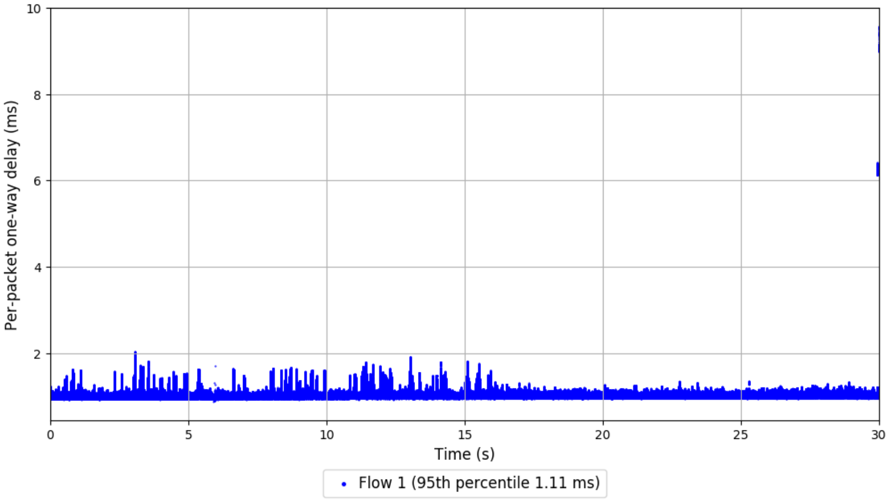




```
Run 5: Statistics of Copa

Start at: 2019-07-12 12:19:28
End at: 2019-07-12 12:19:58
Local clock offset: 5.125 ms
Remote clock offset: 2.856 ms

# Below is generated by plot.py at 2019-07-12 13:12:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 367.81 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 367.81 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.01%
```

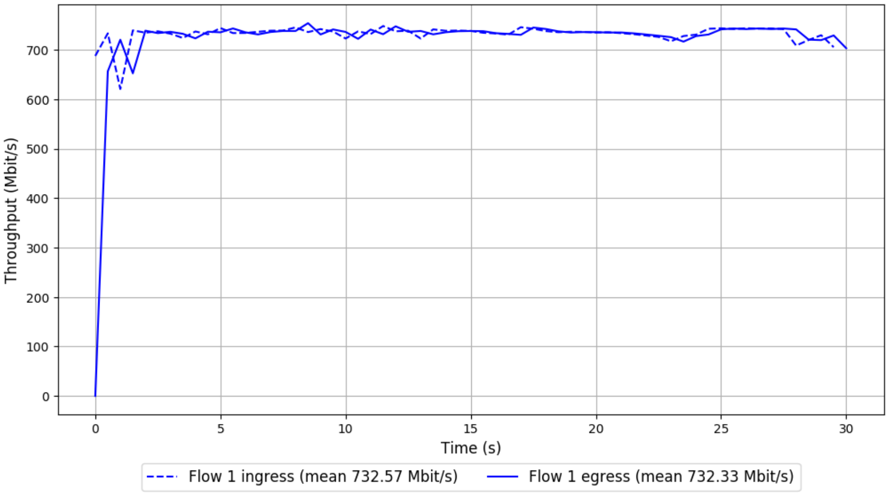
Run 5: Report of Copa — Data Link

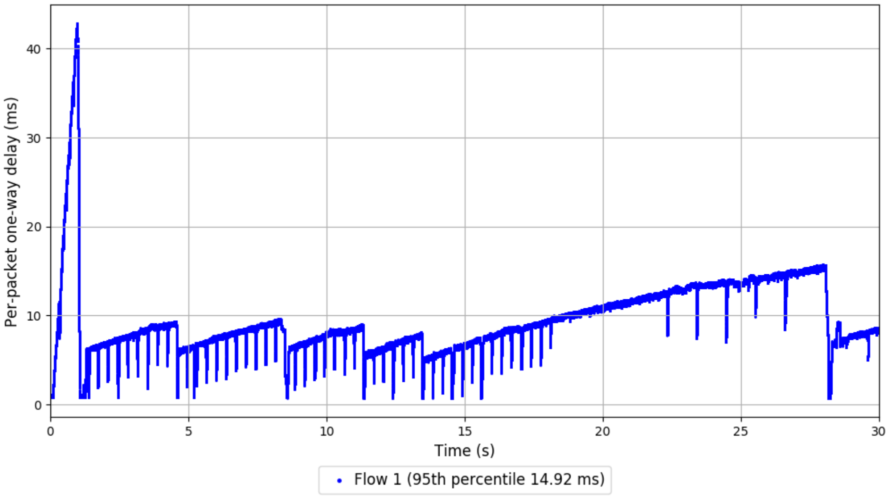




```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-12 10:18:17
End at: 2019-07-12 10:18:47
Local clock offset: 6.833 ms
Remote clock offset: 4.211 ms

# Below is generated by plot.py at 2019-07-12 13:13:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 732.33 Mbit/s
95th percentile per-packet one-way delay: 14.919 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 732.33 Mbit/s
95th percentile per-packet one-way delay: 14.919 ms
Loss rate: 0.04%
```

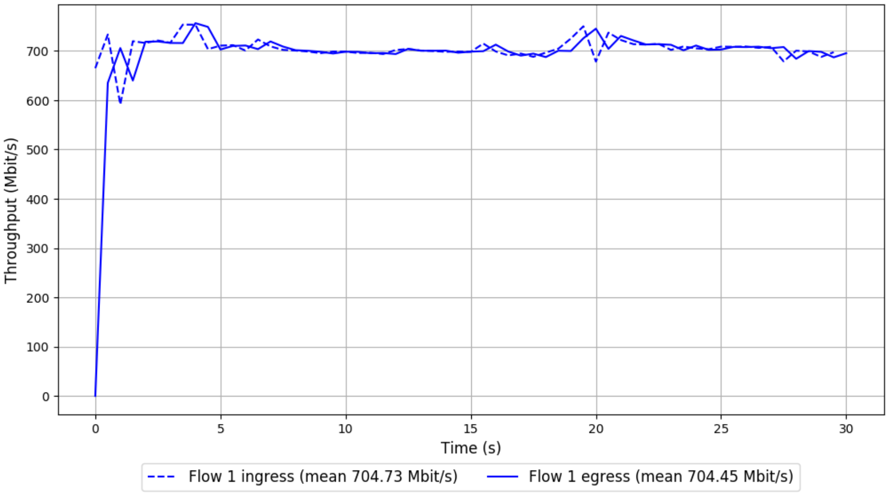
Run 1: Report of TCP Cubic — Data Link

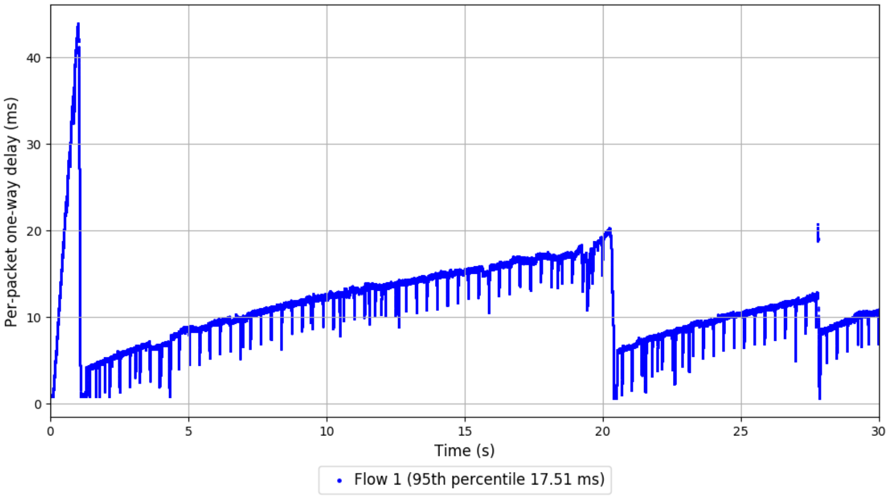




```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-12 10:51:30
End at: 2019-07-12 10:52:00
Local clock offset: 6.052 ms
Remote clock offset: 3.492 ms

# Below is generated by plot.py at 2019-07-12 13:13:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 704.45 Mbit/s
95th percentile per-packet one-way delay: 17.510 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 704.45 Mbit/s
95th percentile per-packet one-way delay: 17.510 ms
Loss rate: 0.05%
```

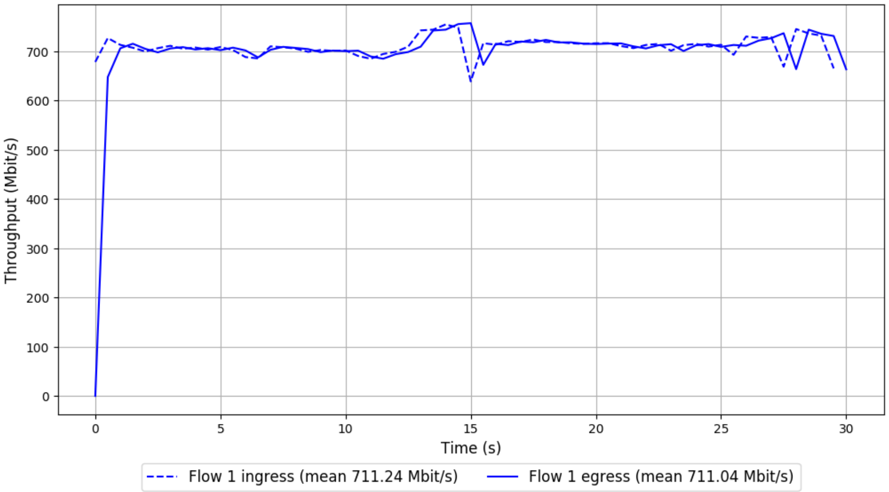
Run 2: Report of TCP Cubic — Data Link

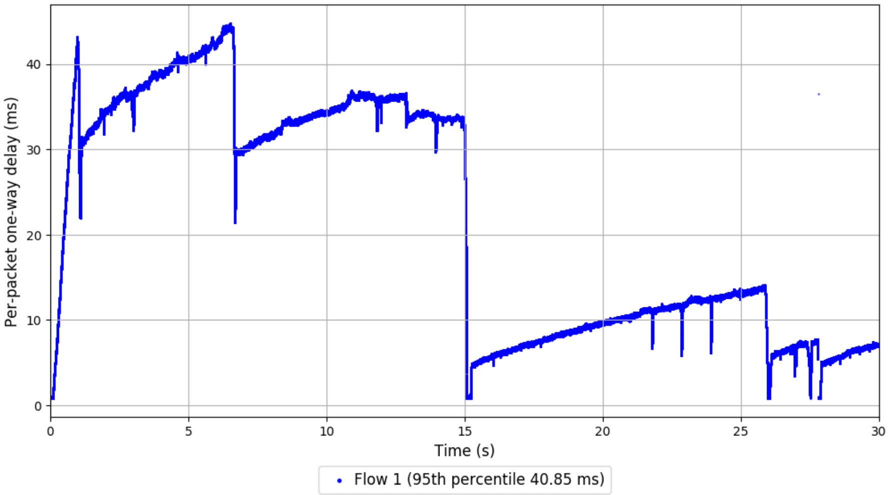




```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-12 11:25:03
End at: 2019-07-12 11:25:33
Local clock offset: 4.723 ms
Remote clock offset: -1.063 ms

# Below is generated by plot.py at 2019-07-12 13:13:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.04 Mbit/s
95th percentile per-packet one-way delay: 40.855 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 711.04 Mbit/s
95th percentile per-packet one-way delay: 40.855 ms
Loss rate: 0.03%
```

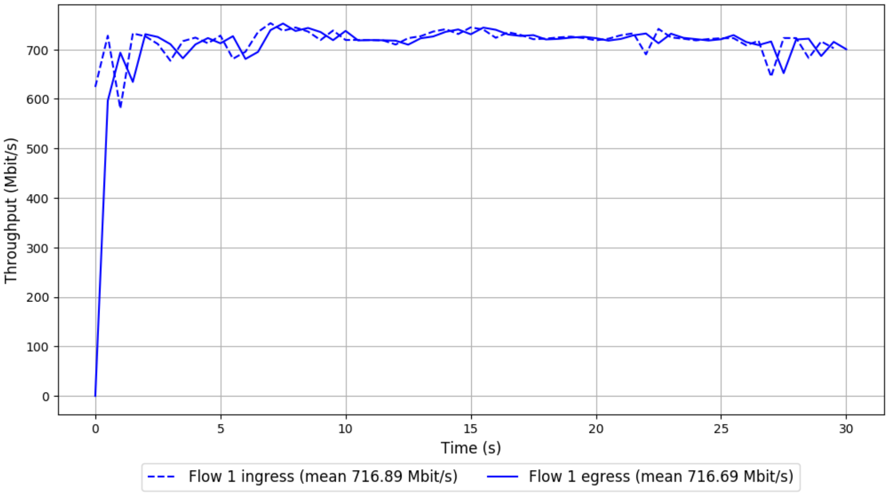
Run 3: Report of TCP Cubic — Data Link

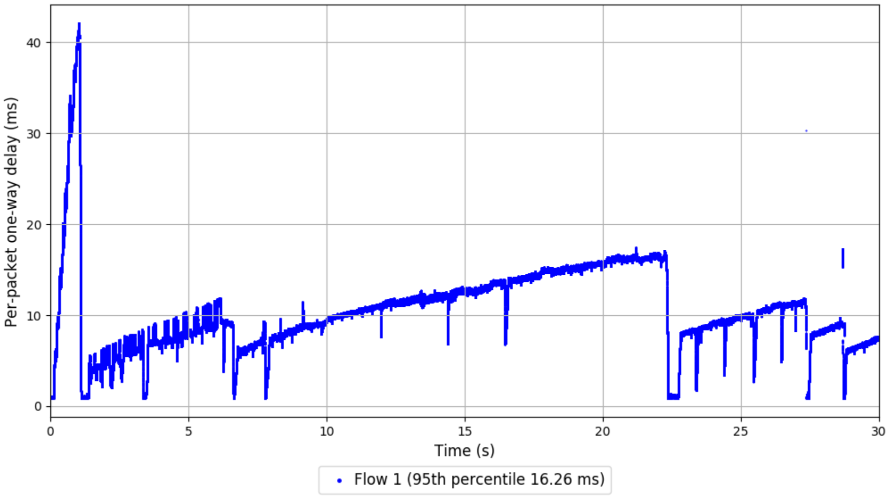




```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-12 11:58:30
End at: 2019-07-12 11:59:00
Local clock offset: 4.971 ms
Remote clock offset: -0.645 ms

# Below is generated by plot.py at 2019-07-12 13:13:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 716.69 Mbit/s
95th percentile per-packet one-way delay: 16.263 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 716.69 Mbit/s
95th percentile per-packet one-way delay: 16.263 ms
Loss rate: 0.03%
```

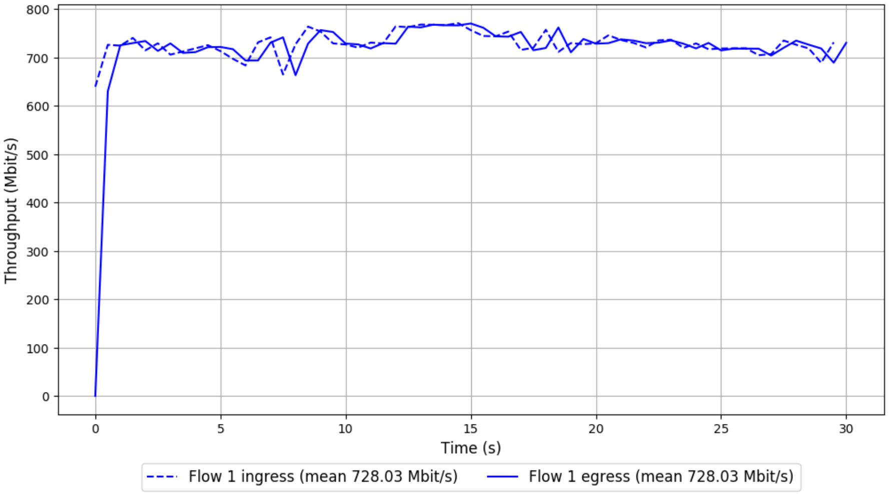
Run 4: Report of TCP Cubic — Data Link

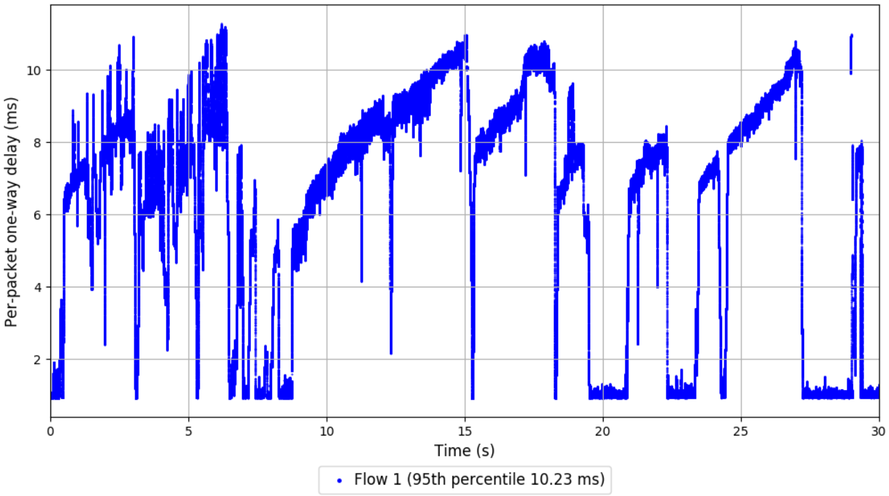




```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-12 12:32:03
End at: 2019-07-12 12:32:33
Local clock offset: 5.159 ms
Remote clock offset: 3.448 ms

# Below is generated by plot.py at 2019-07-12 13:13:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 728.03 Mbit/s
95th percentile per-packet one-way delay: 10.228 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 728.03 Mbit/s
95th percentile per-packet one-way delay: 10.228 ms
Loss rate: 0.01%
```

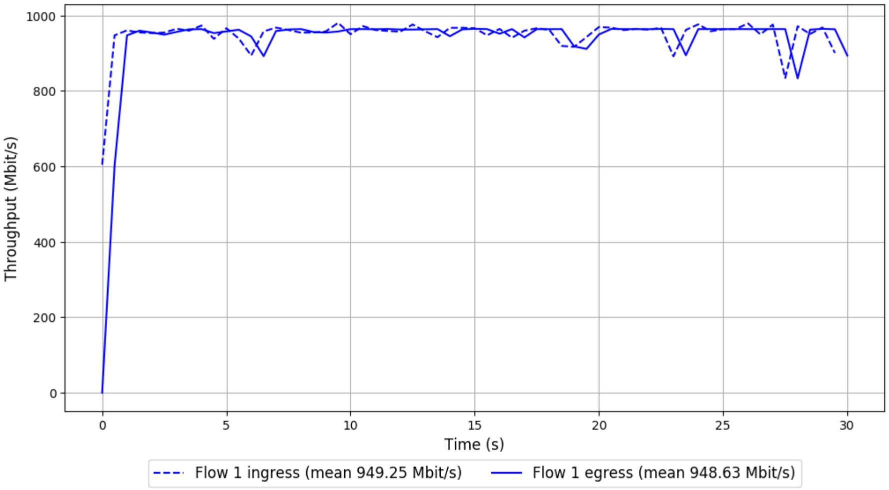
Run 5: Report of TCP Cubic — Data Link

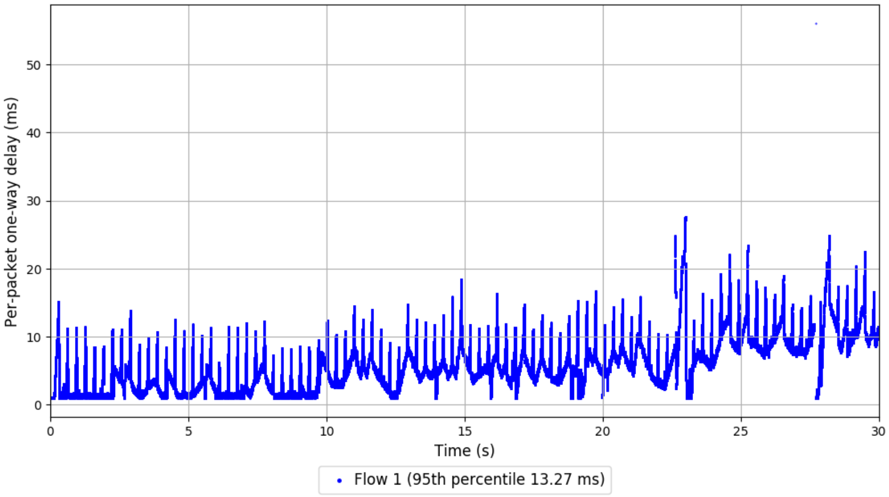




```
Run 1: Statistics of FillP

Start at: 2019-07-12 10:14:04
End at: 2019-07-12 10:14:34
Local clock offset: 6.745 ms
Remote clock offset: 4.038 ms

# Below is generated by plot.py at 2019-07-12 13:18:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 948.63 Mbit/s
95th percentile per-packet one-way delay: 13.274 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 948.63 Mbit/s
95th percentile per-packet one-way delay: 13.274 ms
Loss rate: 0.07%
```

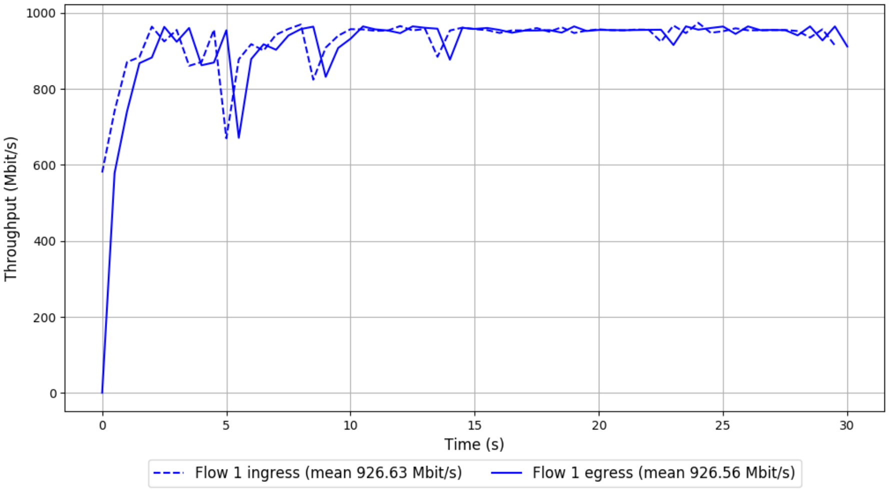
Run 1: Report of FillP — Data Link

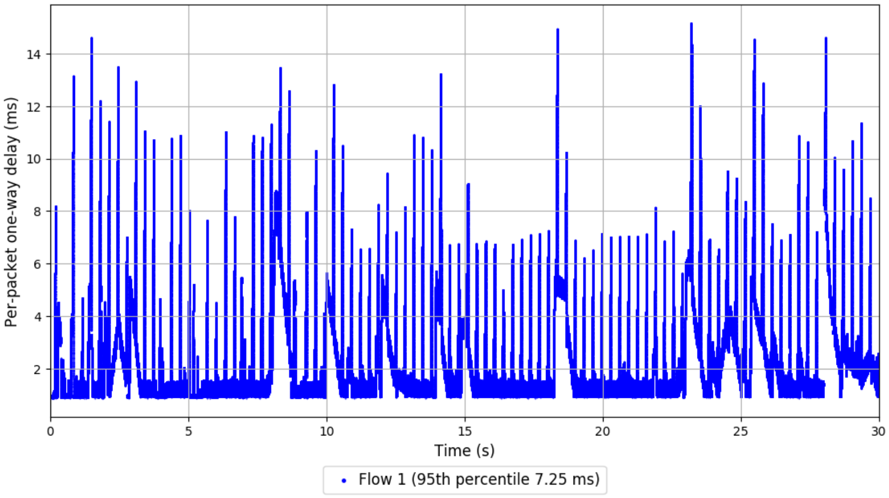




```
Run 2: Statistics of FillP

Start at: 2019-07-12 10:47:17
End at: 2019-07-12 10:47:47
Local clock offset: 6.059 ms
Remote clock offset: 3.401 ms

# Below is generated by plot.py at 2019-07-12 13:25:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 926.56 Mbit/s
95th percentile per-packet one-way delay: 7.253 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 926.56 Mbit/s
95th percentile per-packet one-way delay: 7.253 ms
Loss rate: 0.01%
```

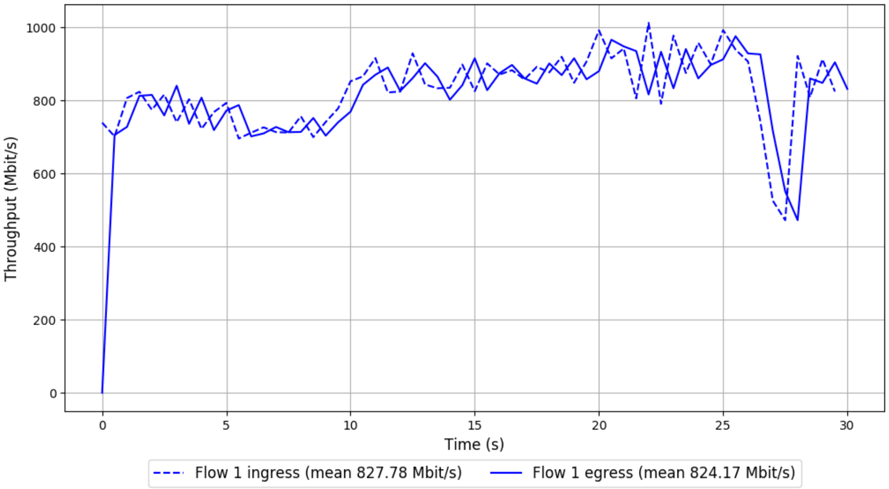
Run 2: Report of FillP — Data Link

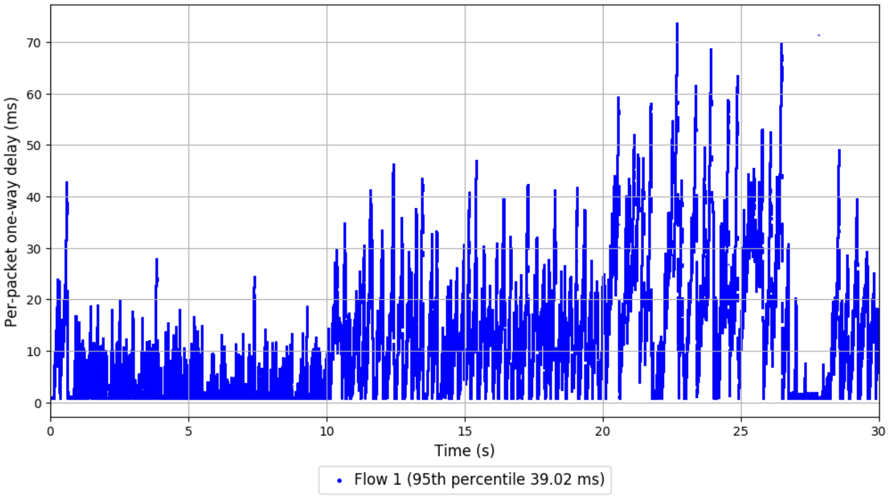




```
Run 3: Statistics of FillP

Start at: 2019-07-12 11:20:47
End at: 2019-07-12 11:21:17
Local clock offset: 4.813 ms
Remote clock offset: -0.858 ms

# Below is generated by plot.py at 2019-07-12 13:25:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 824.17 Mbit/s
95th percentile per-packet one-way delay: 39.017 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 824.17 Mbit/s
95th percentile per-packet one-way delay: 39.017 ms
Loss rate: 0.44%
```

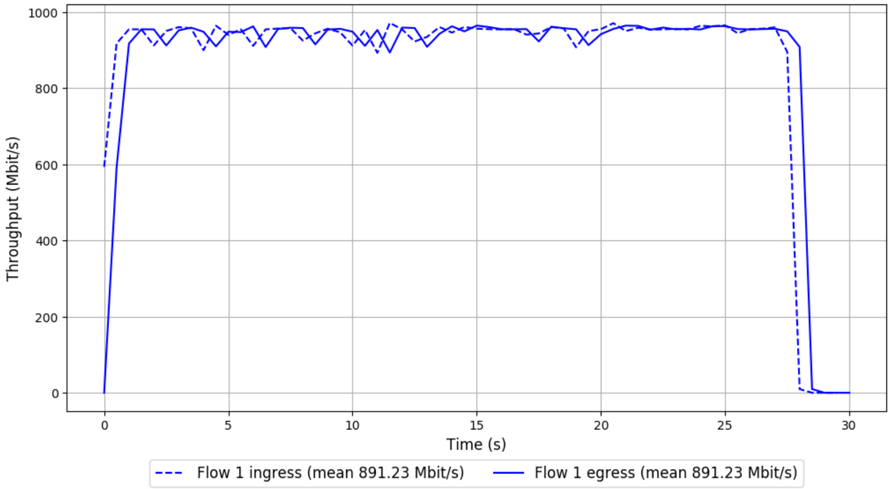
Run 3: Report of FillP — Data Link

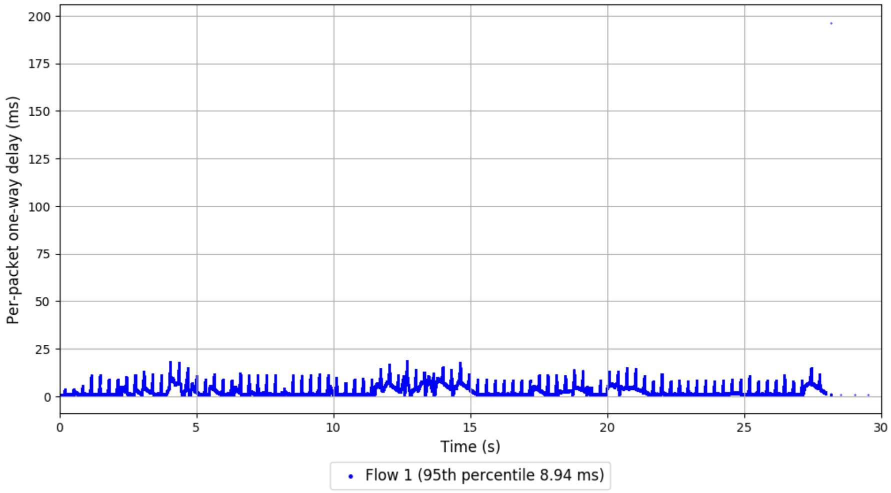




```
Run 4: Statistics of FillP

Start at: 2019-07-12 11:54:14
End at: 2019-07-12 11:54:44
Local clock offset: 4.944 ms
Remote clock offset: -0.62 ms

# Below is generated by plot.py at 2019-07-12 13:25:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 891.23 Mbit/s
95th percentile per-packet one-way delay: 8.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 891.23 Mbit/s
95th percentile per-packet one-way delay: 8.942 ms
Loss rate: 0.00%
```

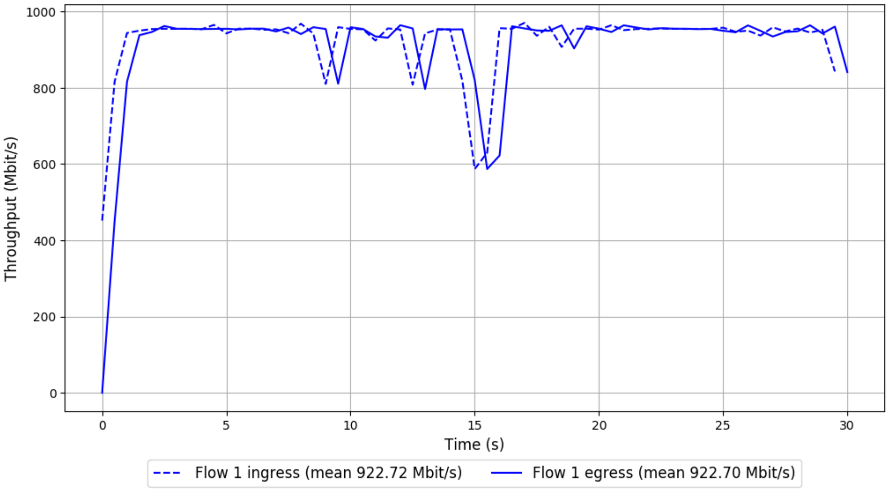
Run 4: Report of FillP — Data Link

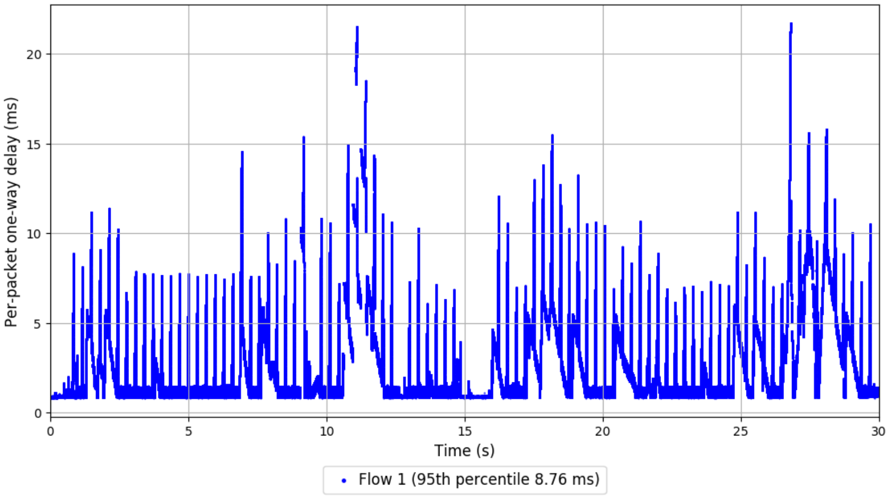




```
Run 5: Statistics of FillP

Start at: 2019-07-12 12:27:42
End at: 2019-07-12 12:28:12
Local clock offset: 5.131 ms
Remote clock offset: 3.348 ms

# Below is generated by plot.py at 2019-07-12 13:26:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 922.70 Mbit/s
95th percentile per-packet one-way delay: 8.764 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 922.70 Mbit/s
95th percentile per-packet one-way delay: 8.764 ms
Loss rate: 0.01%
```

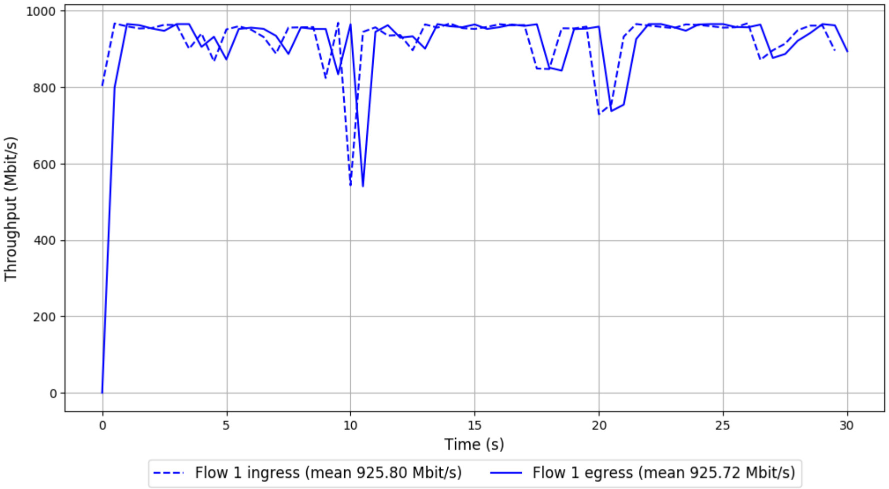
Run 5: Report of FillP — Data Link

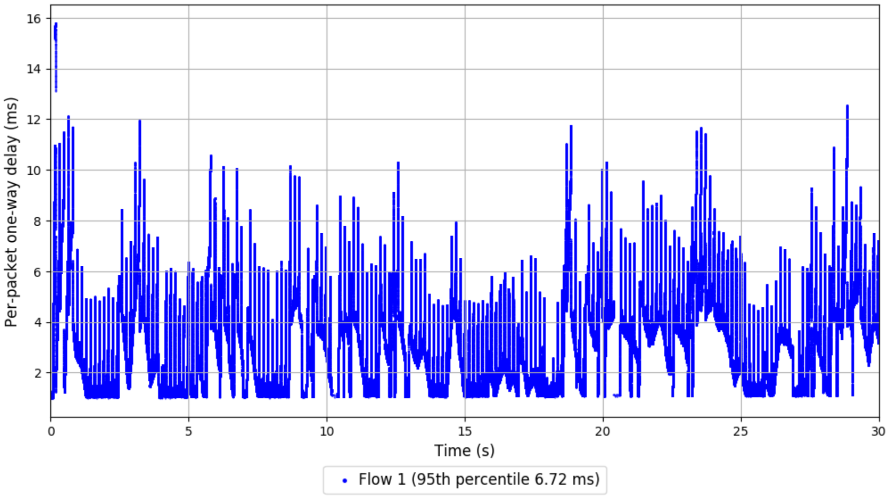




```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-12 10:29:06
End at: 2019-07-12 10:29:36
Local clock offset: 7.279 ms
Remote clock offset: 3.283 ms

# Below is generated by plot.py at 2019-07-12 13:26:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 925.72 Mbit/s
95th percentile per-packet one-way delay: 6.724 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 925.72 Mbit/s
95th percentile per-packet one-way delay: 6.724 ms
Loss rate: 0.01%
```

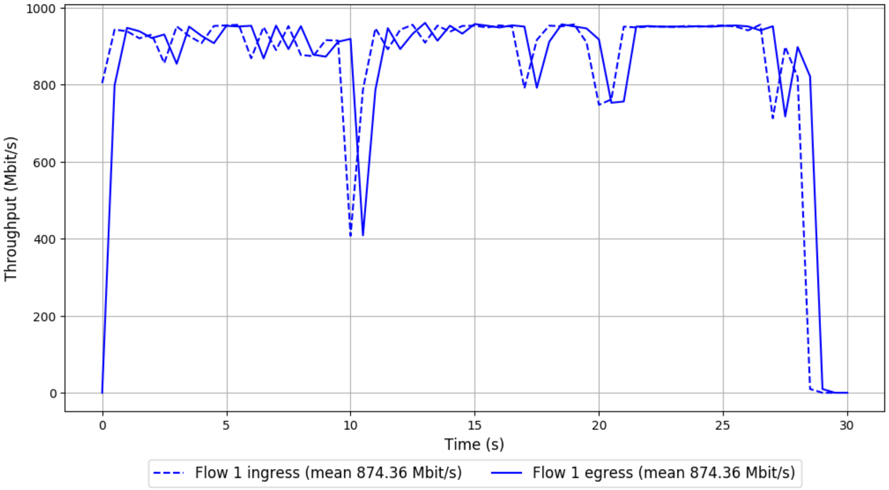
Run 1: Report of FillP-Sheep — Data Link

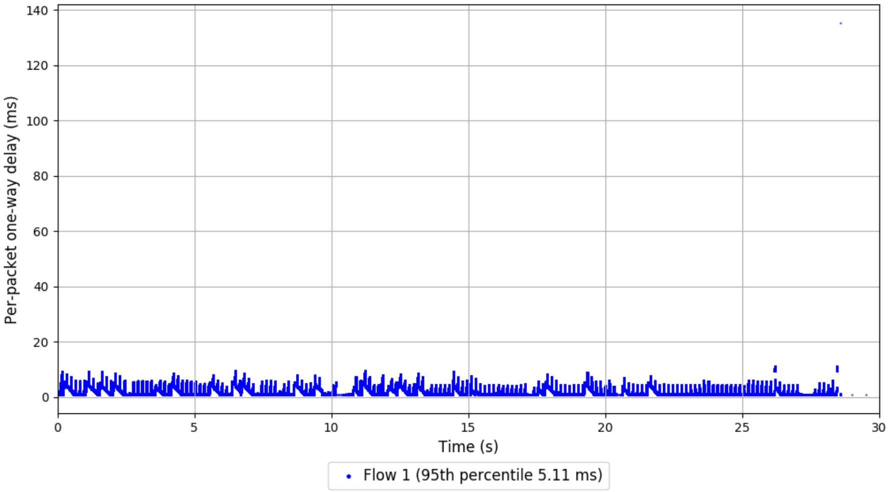




```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-12 11:02:20
End at: 2019-07-12 11:02:50
Local clock offset: 5.66 ms
Remote clock offset: 0.535 ms

# Below is generated by plot.py at 2019-07-12 13:26:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 874.36 Mbit/s
95th percentile per-packet one-way delay: 5.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 874.36 Mbit/s
95th percentile per-packet one-way delay: 5.113 ms
Loss rate: 0.00%
```

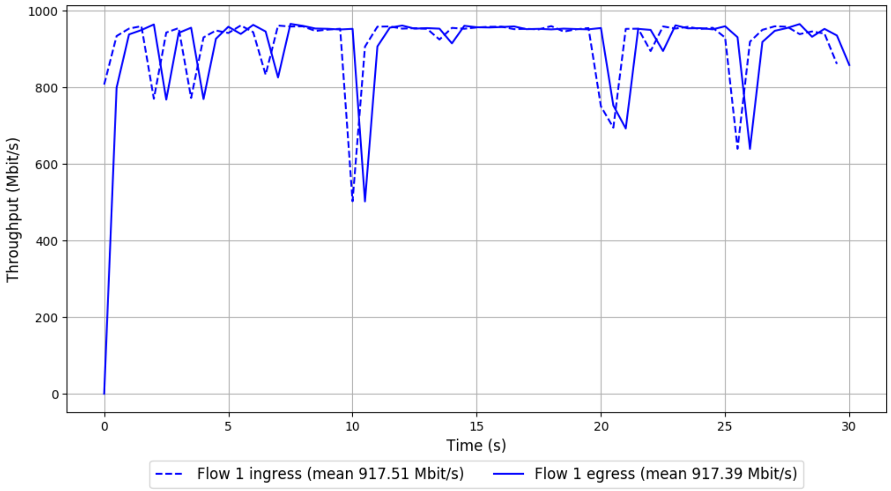
Run 2: Report of FillP-Sheep — Data Link

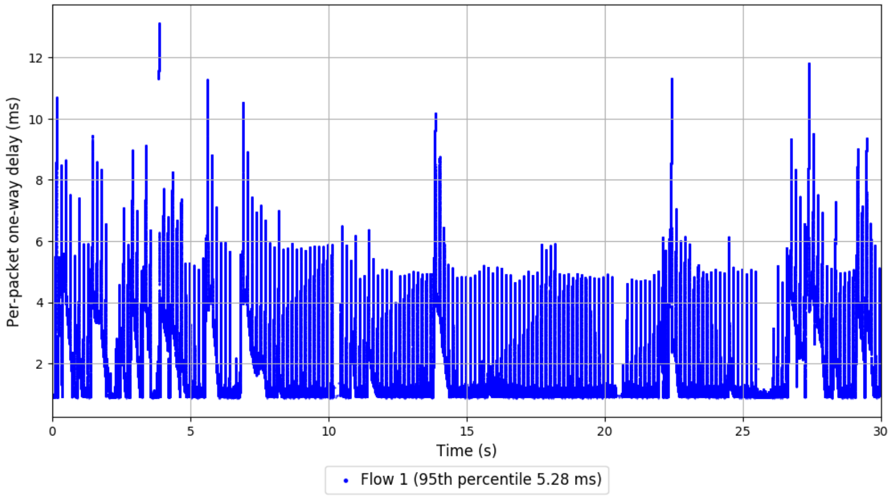




```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-12 11:35:51
End at: 2019-07-12 11:36:21
Local clock offset: 4.839 ms
Remote clock offset: -0.65 ms

# Below is generated by plot.py at 2019-07-12 13:26:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 917.39 Mbit/s
95th percentile per-packet one-way delay: 5.280 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 917.39 Mbit/s
95th percentile per-packet one-way delay: 5.280 ms
Loss rate: 0.02%
```

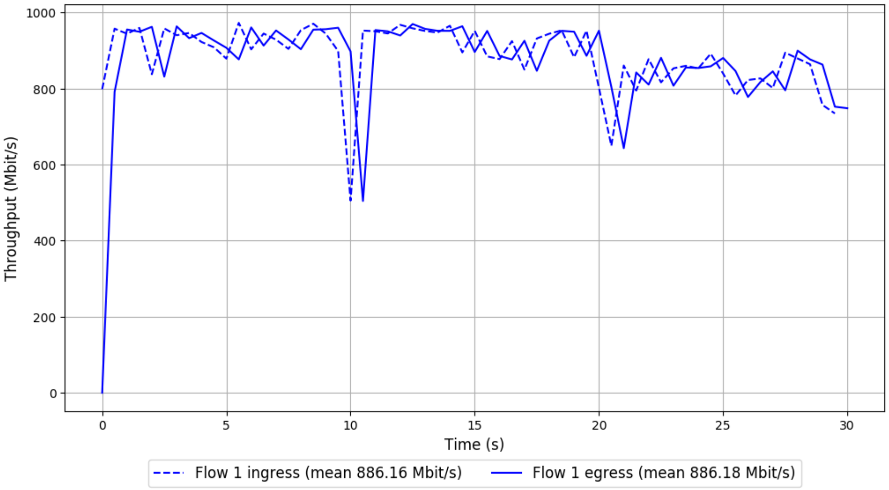
Run 3: Report of FillP-Sheep — Data Link

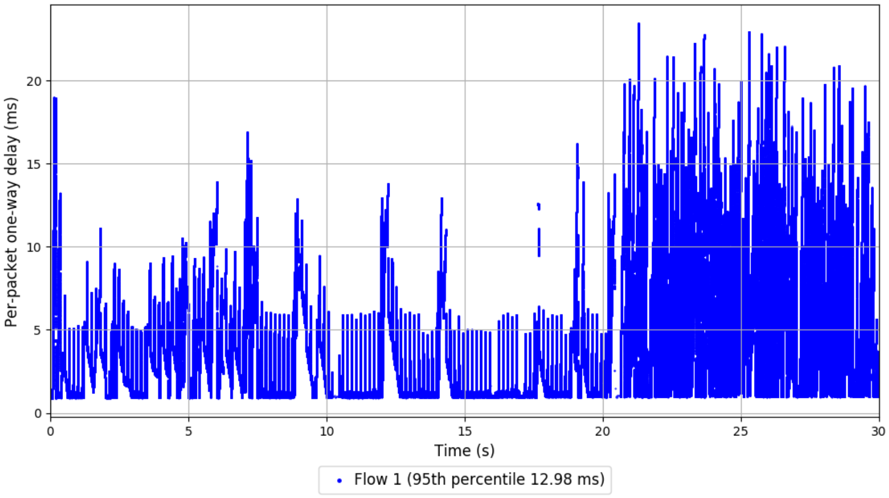




```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-12 12:09:23
End at: 2019-07-12 12:09:53
Local clock offset: 5.101 ms
Remote clock offset: 1.902 ms

# Below is generated by plot.py at 2019-07-12 13:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 886.18 Mbit/s
95th percentile per-packet one-way delay: 12.980 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 886.18 Mbit/s
95th percentile per-packet one-way delay: 12.980 ms
Loss rate: 0.01%
```

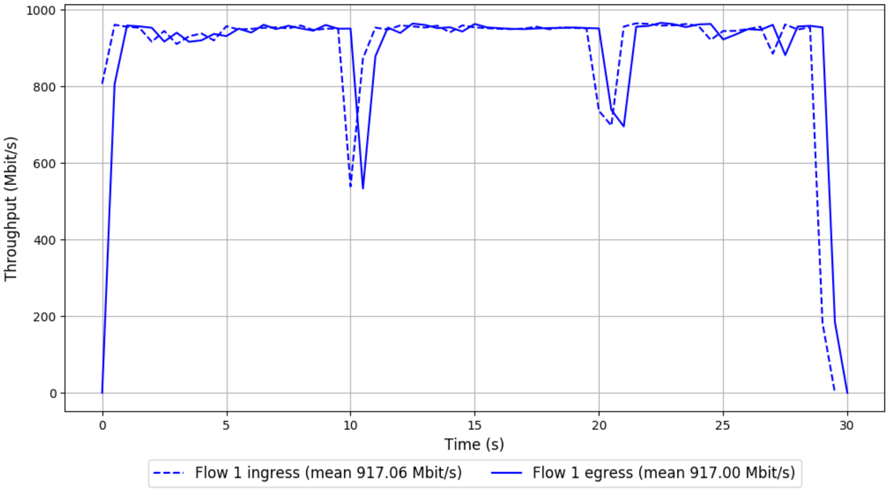
Run 4: Report of FillP-Sheep — Data Link

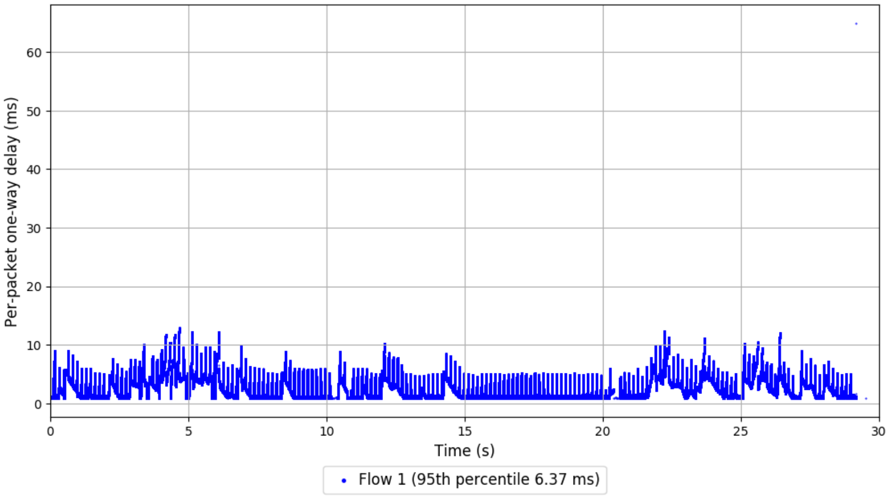




```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-12 12:42:58
End at: 2019-07-12 12:43:29
Local clock offset: 5.254 ms
Remote clock offset: 3.726 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 917.00 Mbit/s
95th percentile per-packet one-way delay: 6.372 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 917.00 Mbit/s
95th percentile per-packet one-way delay: 6.372 ms
Loss rate: 0.01%
```

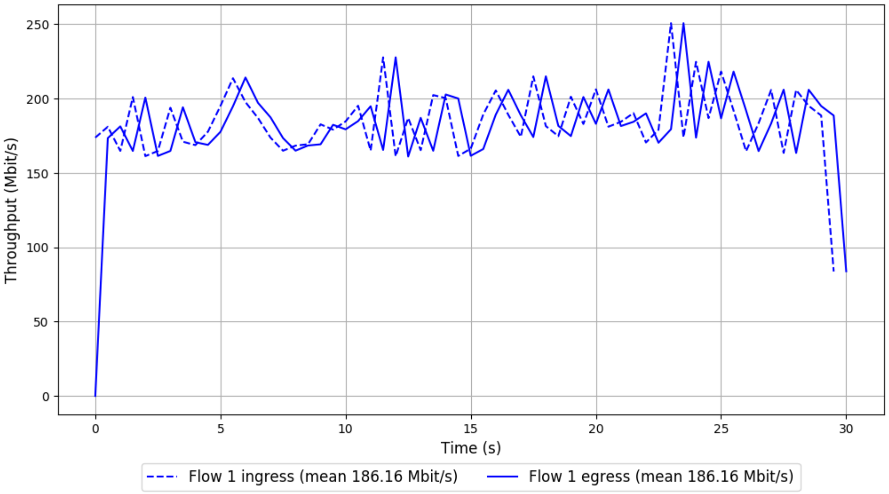
Run 5: Report of FillP-Sheep — Data Link

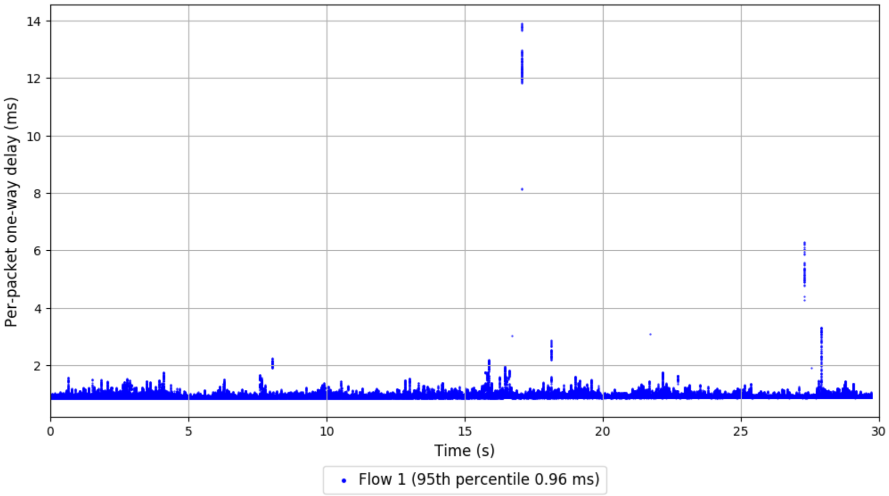




```
Run 1: Statistics of Indigo

Start at: 2019-07-12 10:15:42
End at: 2019-07-12 10:16:12
Local clock offset: 6.78 ms
Remote clock offset: 4.242 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.16 Mbit/s
95th percentile per-packet one-way delay: 0.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.16 Mbit/s
95th percentile per-packet one-way delay: 0.961 ms
Loss rate: 0.00%
```

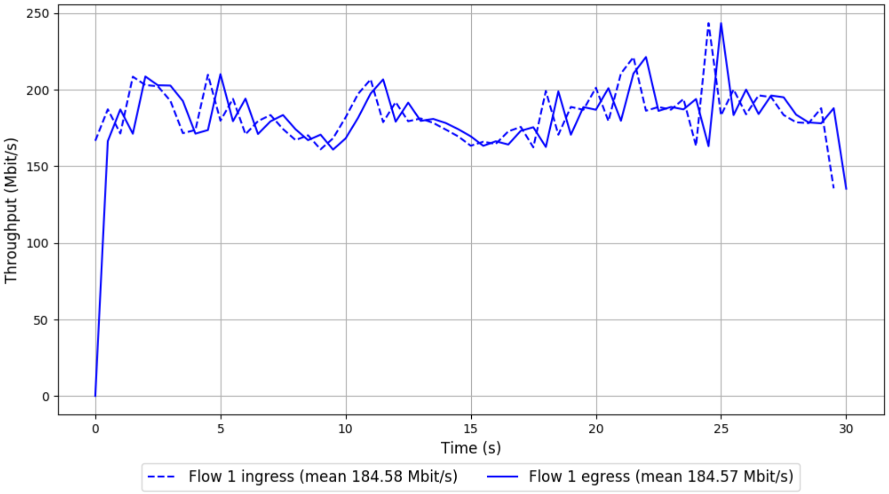
Run 1: Report of Indigo — Data Link

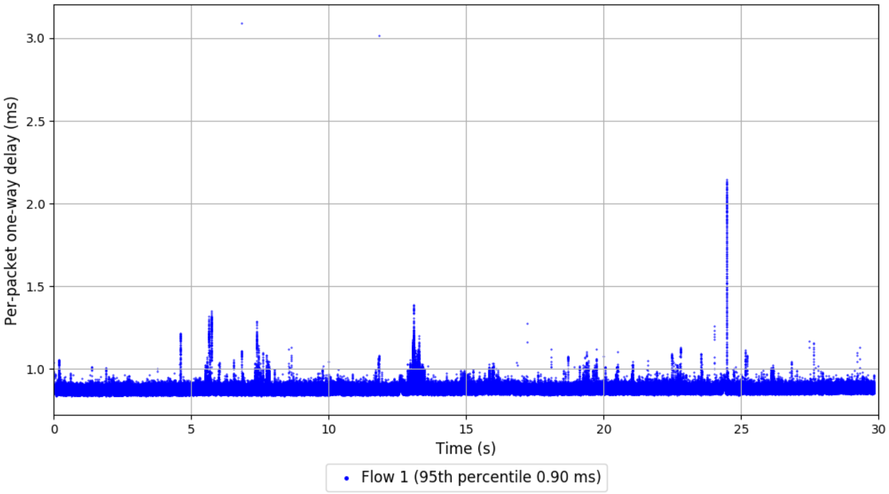




```
Run 2: Statistics of Indigo

Start at: 2019-07-12 10:48:55
End at: 2019-07-12 10:49:25
Local clock offset: 6.001 ms
Remote clock offset: 3.487 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.57 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 184.57 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 0.01%
```

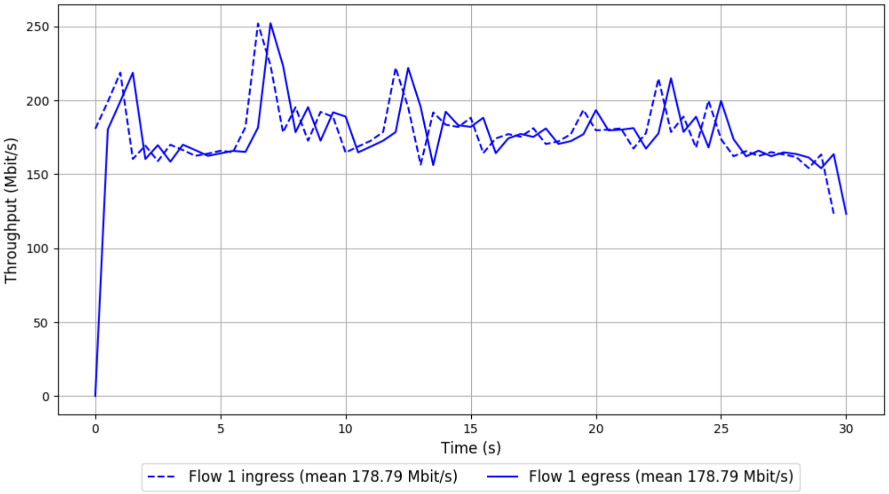
Run 2: Report of Indigo — Data Link

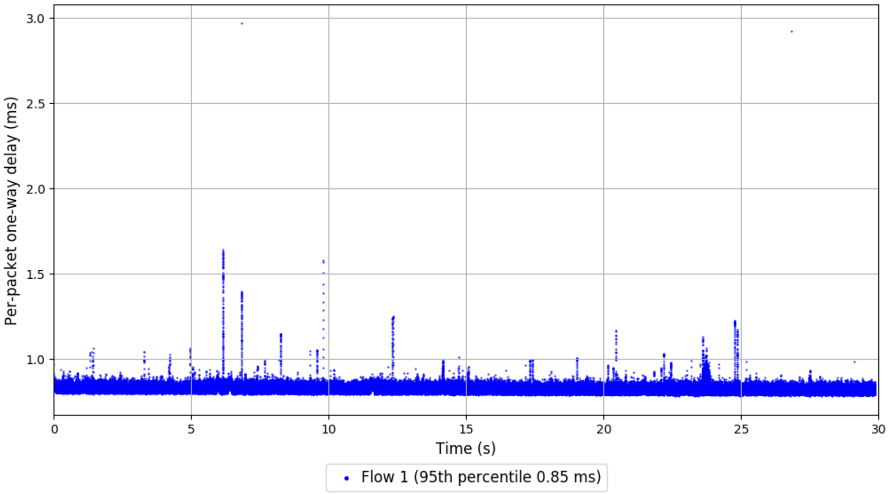




```
Run 3: Statistics of Indigo

Start at: 2019-07-12 11:22:23
End at: 2019-07-12 11:22:53
Local clock offset: 4.741 ms
Remote clock offset: -0.939 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.79 Mbit/s
95th percentile per-packet one-way delay: 0.851 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.79 Mbit/s
95th percentile per-packet one-way delay: 0.851 ms
Loss rate: 0.00%
```

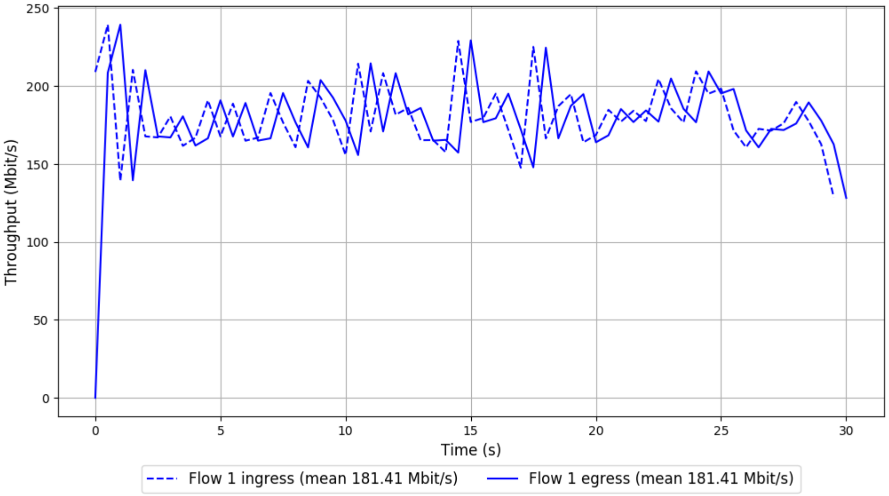
Run 3: Report of Indigo — Data Link

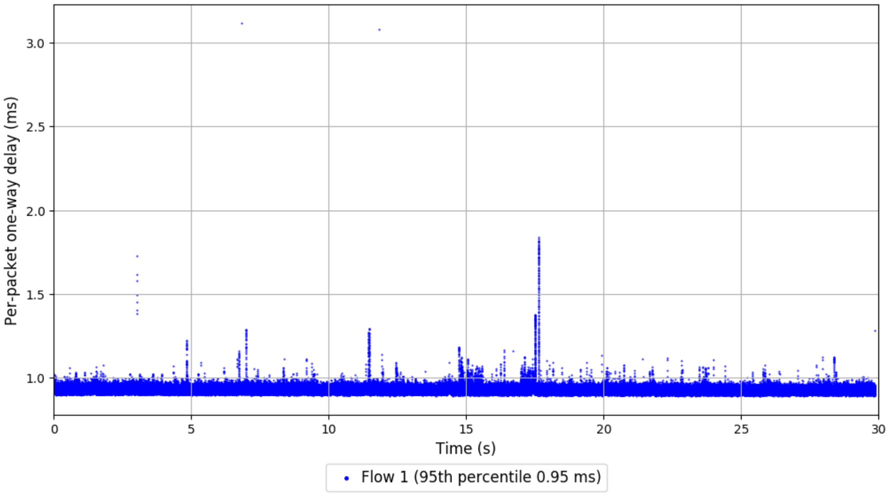




```
Run 4: Statistics of Indigo

Start at: 2019-07-12 11:55:50
End at: 2019-07-12 11:56:20
Local clock offset: 4.976 ms
Remote clock offset: -0.64 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 181.41 Mbit/s
95th percentile per-packet one-way delay: 0.952 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 181.41 Mbit/s
95th percentile per-packet one-way delay: 0.952 ms
Loss rate: 0.01%
```

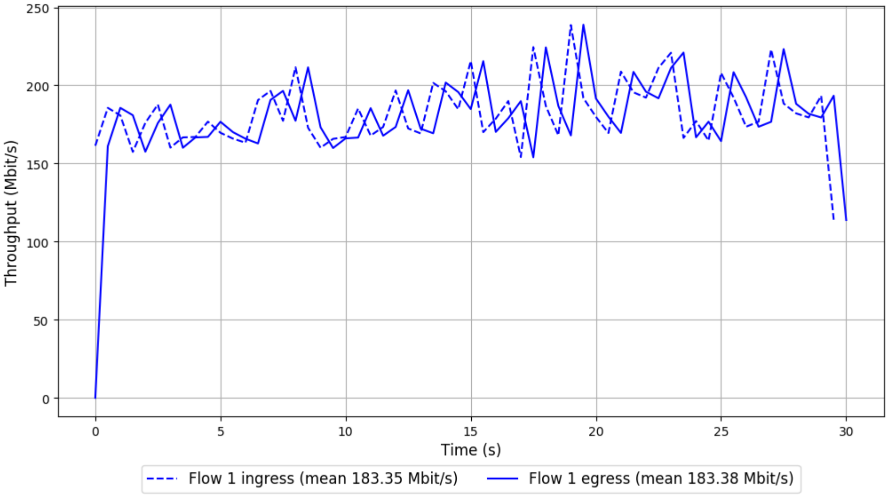
Run 4: Report of Indigo — Data Link

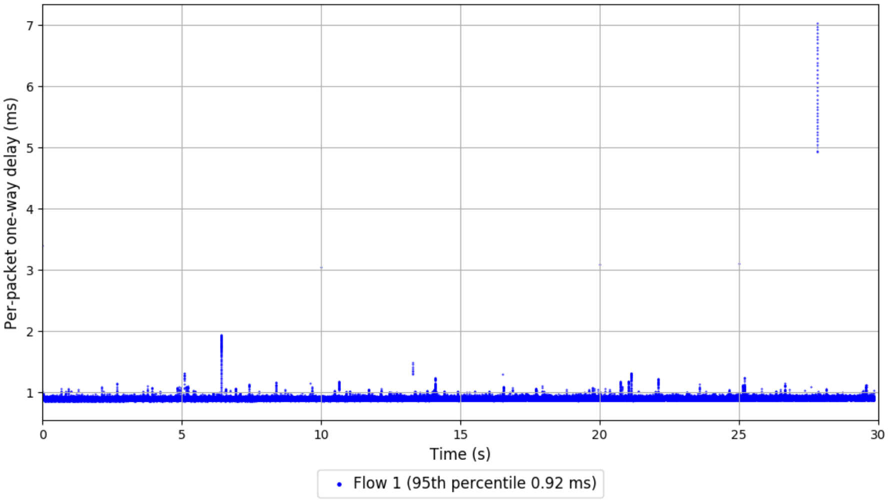




```
Run 5: Statistics of Indigo

Start at: 2019-07-12 12:29:20
End at: 2019-07-12 12:29:50
Local clock offset: 5.133 ms
Remote clock offset: 3.402 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 183.38 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 183.38 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.01%
```

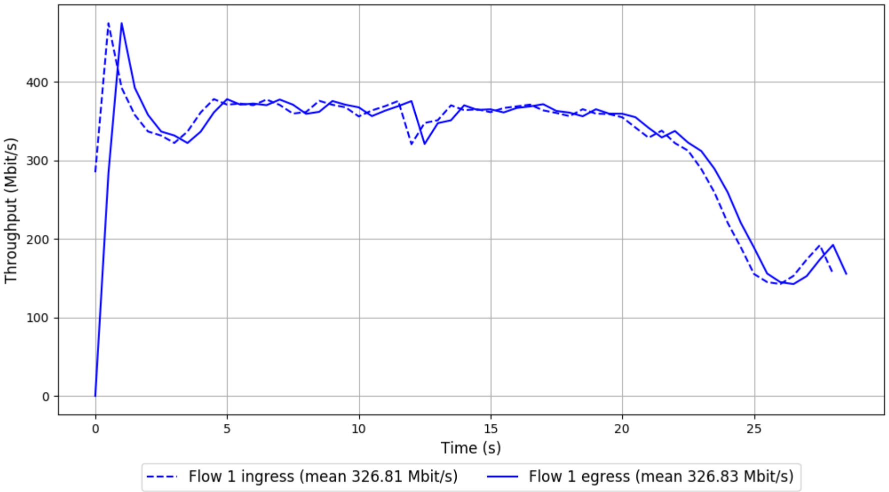
Run 5: Report of Indigo — Data Link

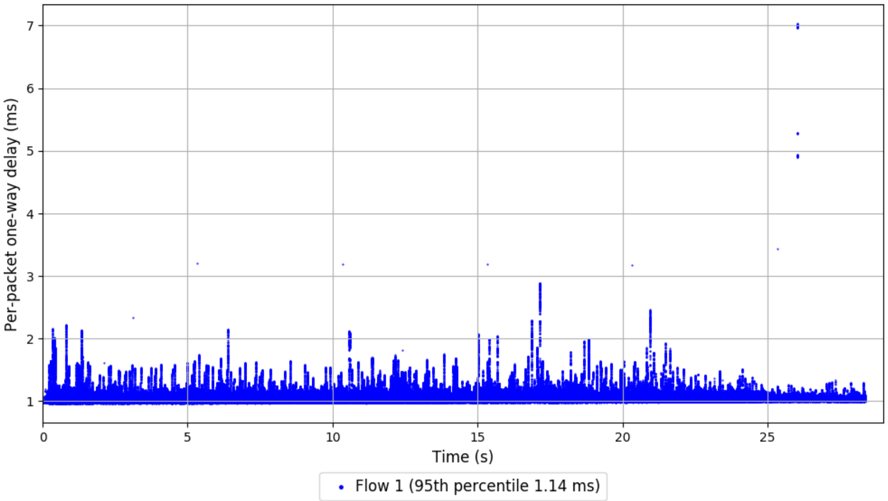




```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-12 10:11:14
End at: 2019-07-12 10:11:44
Local clock offset: 6.73 ms
Remote clock offset: 3.834 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 326.83 Mbit/s
95th percentile per-packet one-way delay: 1.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 326.83 Mbit/s
95th percentile per-packet one-way delay: 1.139 ms
Loss rate: 0.00%
```

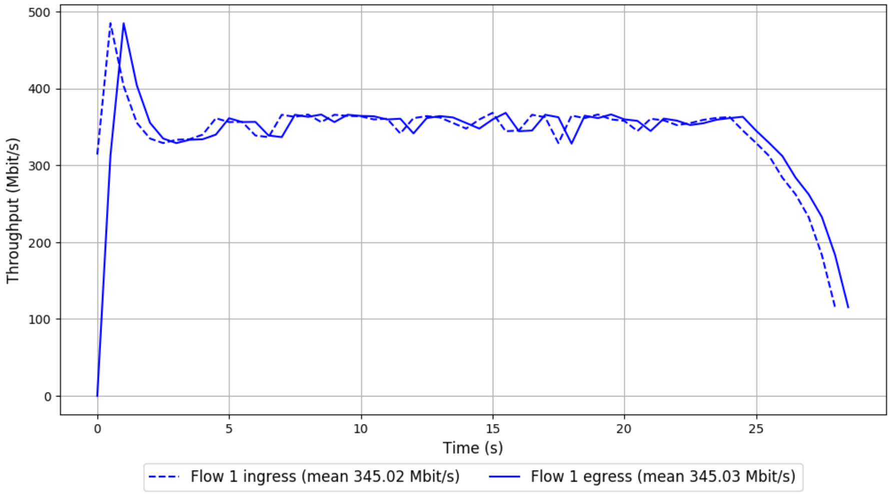
Run 1: Report of Indigo-MusesC3 — Data Link

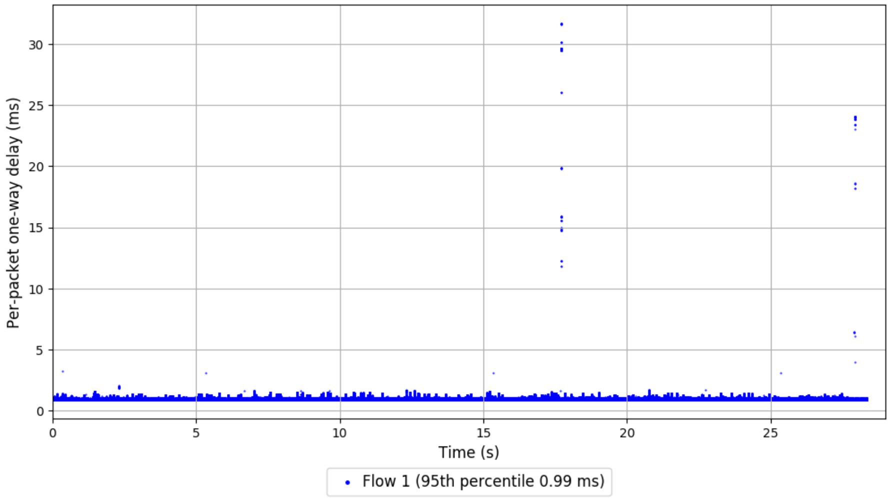




```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-12 10:44:26
End at: 2019-07-12 10:44:56
Local clock offset: 6.042 ms
Remote clock offset: 3.384 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 345.03 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 345.03 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.00%
```

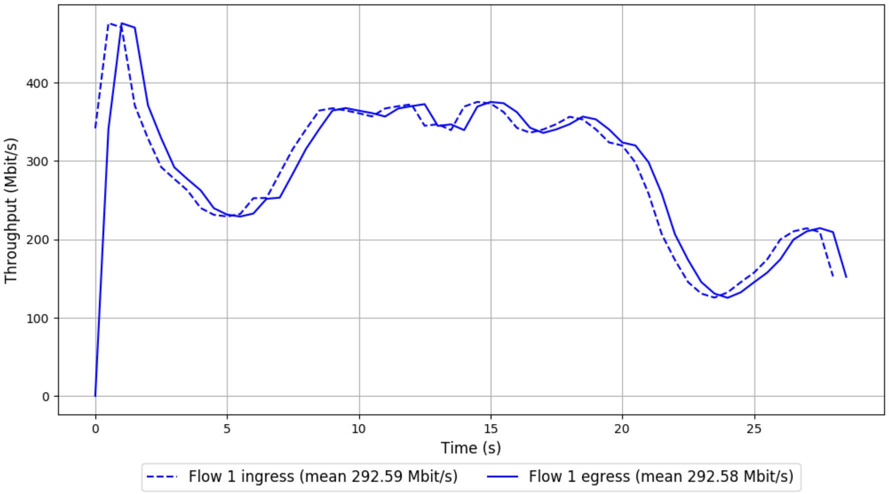
Run 2: Report of Indigo-MusesC3 — Data Link

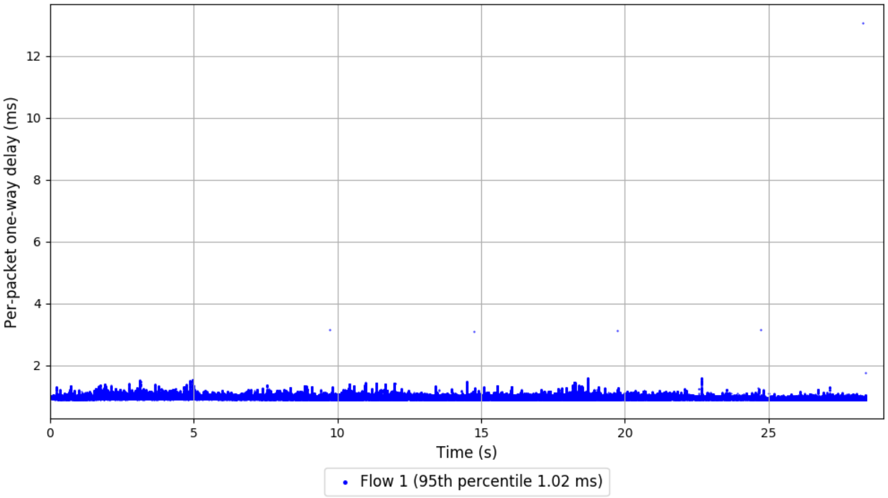




```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-12 11:17:58
End at: 2019-07-12 11:18:28
Local clock offset: 4.812 ms
Remote clock offset: -0.839 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.58 Mbit/s
95th percentile per-packet one-way delay: 1.020 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 292.58 Mbit/s
95th percentile per-packet one-way delay: 1.020 ms
Loss rate: 0.01%
```

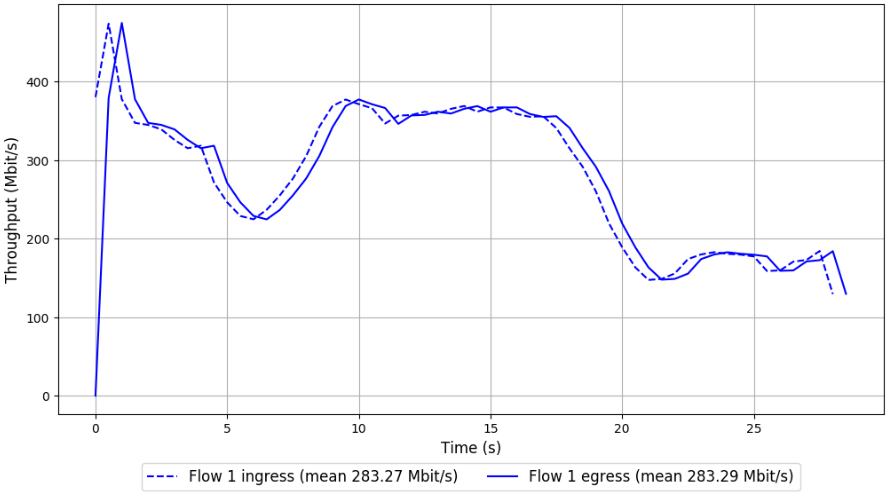
Run 3: Report of Indigo-MusesC3 — Data Link

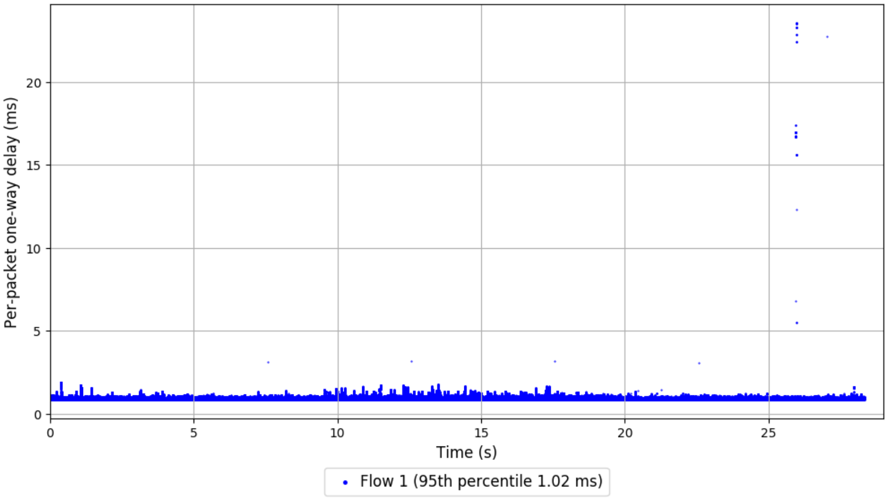




```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-12 11:51:24
End at: 2019-07-12 11:51:54
Local clock offset: 4.952 ms
Remote clock offset: -0.572 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.29 Mbit/s
95th percentile per-packet one-way delay: 1.017 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 283.29 Mbit/s
95th percentile per-packet one-way delay: 1.017 ms
Loss rate: 0.00%
```

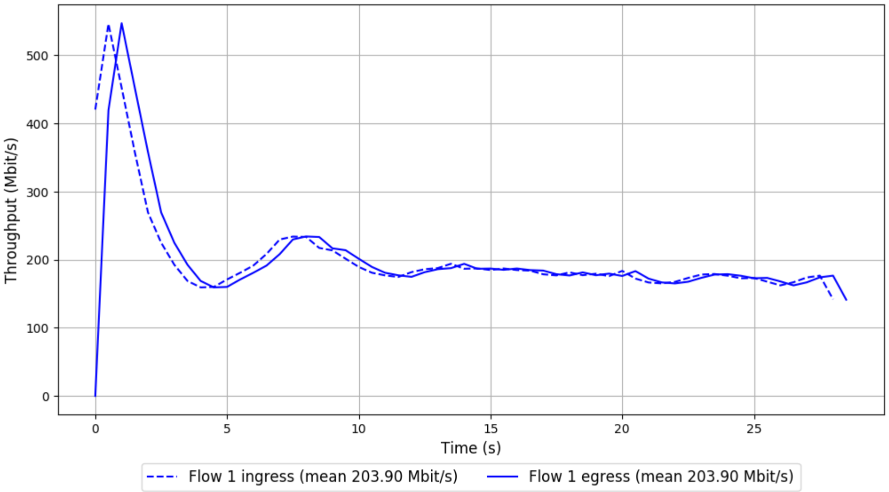
Run 4: Report of Indigo-MusesC3 — Data Link

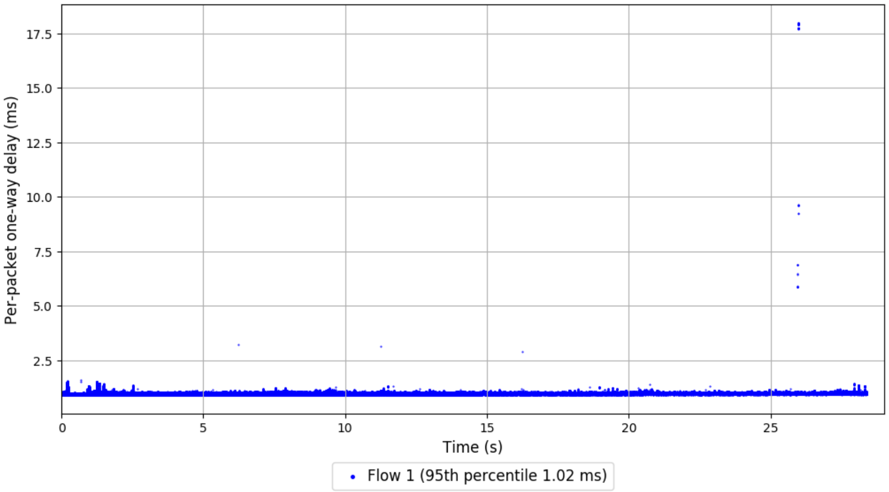




```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-12 12:24:56
End at: 2019-07-12 12:25:26
Local clock offset: 5.121 ms
Remote clock offset: 3.182 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.90 Mbit/s
95th percentile per-packet one-way delay: 1.017 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 203.90 Mbit/s
95th percentile per-packet one-way delay: 1.017 ms
Loss rate: 0.01%
```

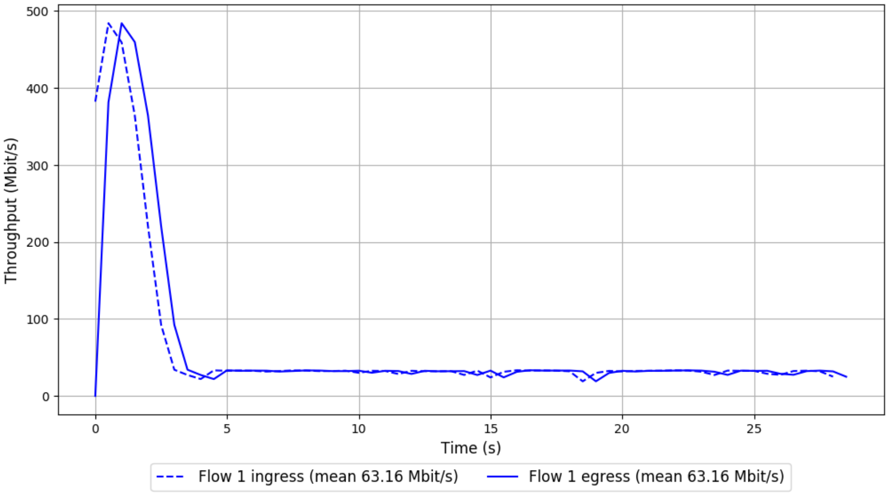
Run 5: Report of Indigo-MusesC3 — Data Link

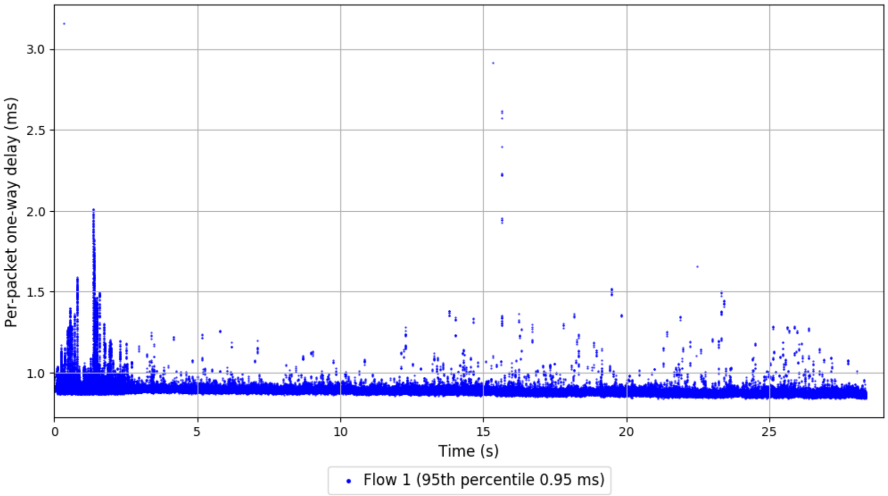




```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-12 10:26:37
End at: 2019-07-12 10:27:07
Local clock offset: 7.19 ms
Remote clock offset: 3.394 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.16 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.16 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.01%
```

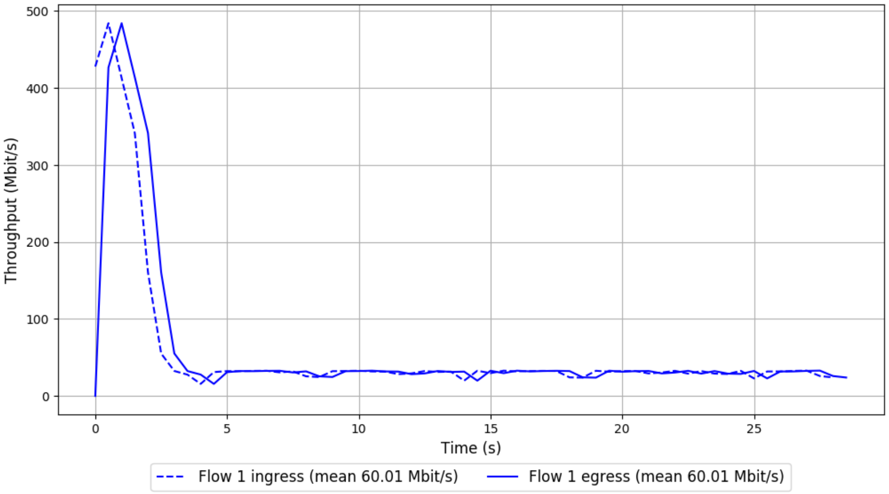
Run 1: Report of Indigo-MusesC5 — Data Link

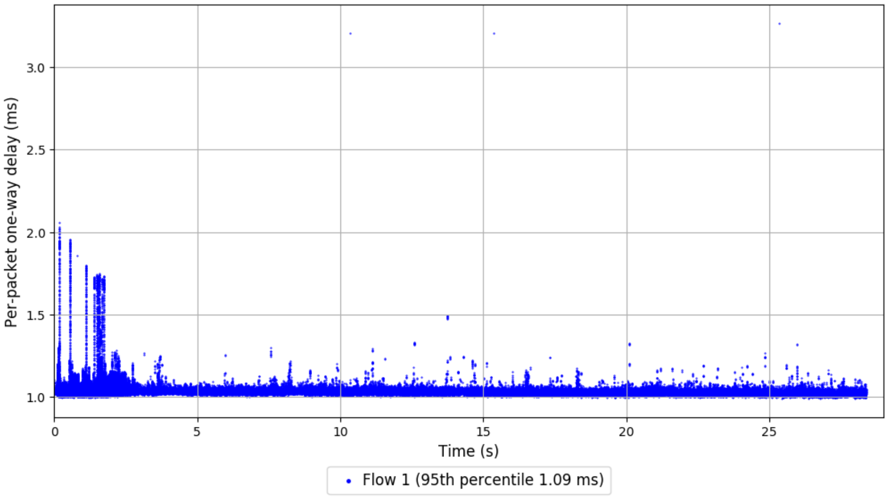




```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-12 10:59:51
End at: 2019-07-12 11:00:21
Local clock offset: 6.03 ms
Remote clock offset: 0.888 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.01%
```

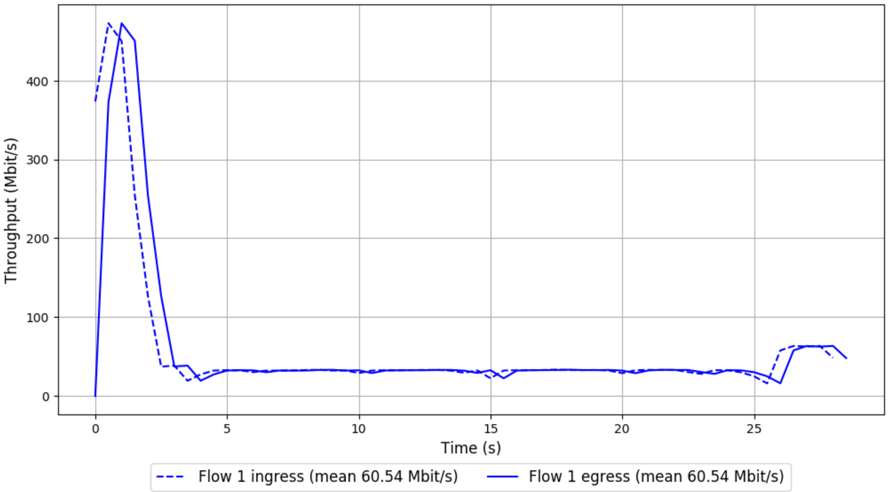
Run 2: Report of Indigo-MusesC5 — Data Link

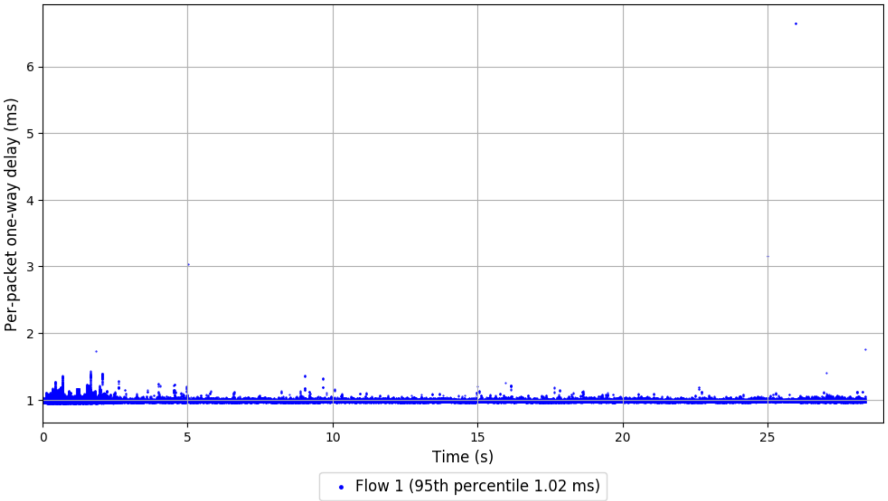




```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-12 11:33:22
End at: 2019-07-12 11:33:52
Local clock offset: 4.811 ms
Remote clock offset: -0.705 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.54 Mbit/s
95th percentile per-packet one-way delay: 1.018 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 60.54 Mbit/s
95th percentile per-packet one-way delay: 1.018 ms
Loss rate: 0.01%
```

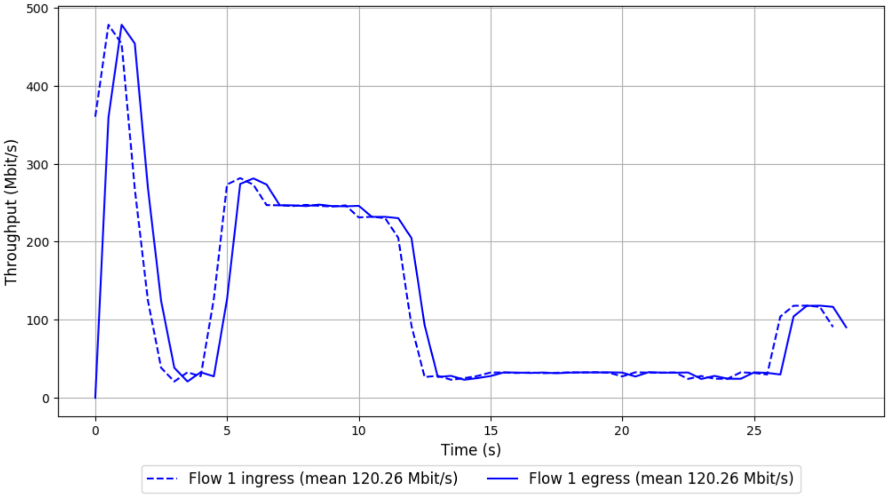
Run 3: Report of Indigo-MusesC5 — Data Link

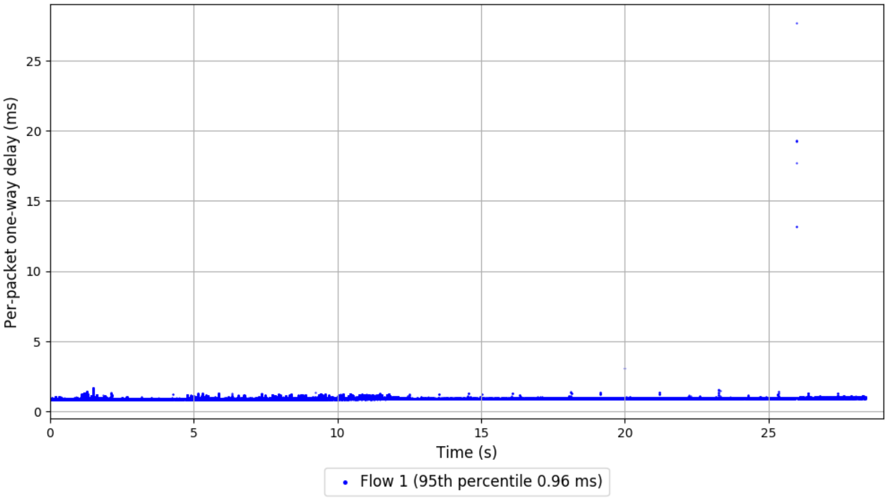




```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-12 12:06:52
End at: 2019-07-12 12:07:22
Local clock offset: 5.042 ms
Remote clock offset: 1.528 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 120.26 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 120.26 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.01%
```

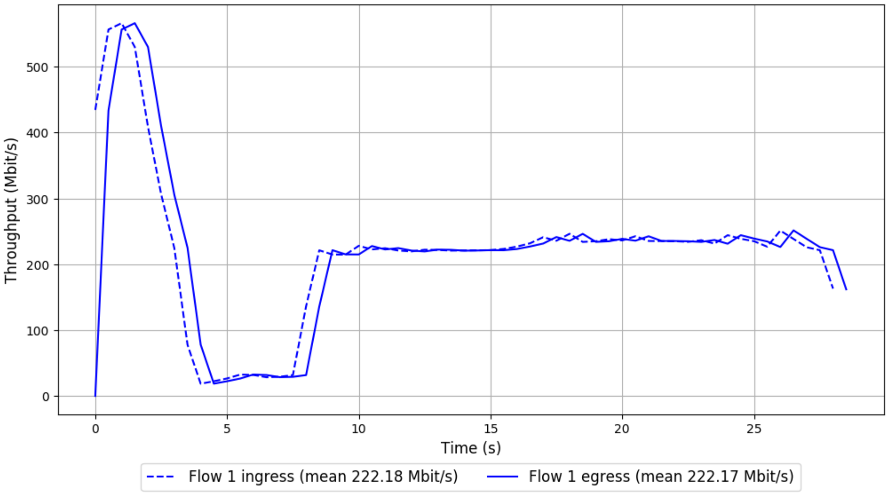
Run 4: Report of Indigo-MusesC5 — Data Link

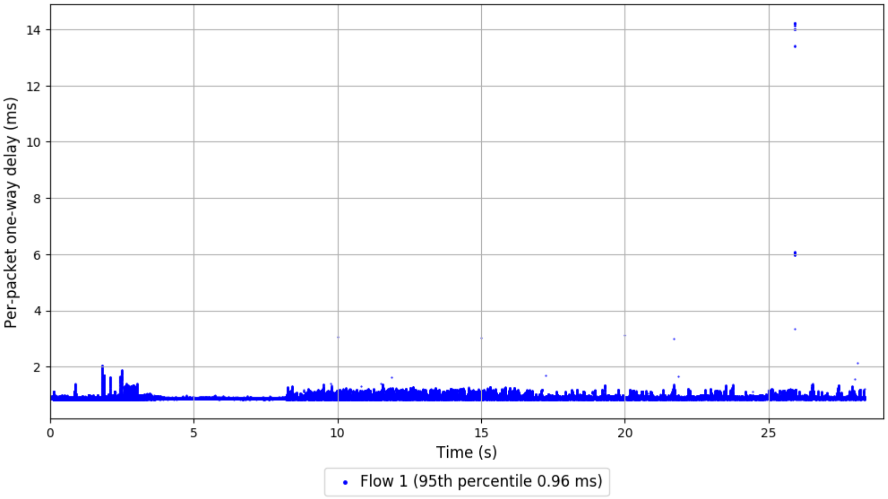




```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-12 12:40:24
End at: 2019-07-12 12:40:54
Local clock offset: 5.247 ms
Remote clock offset: 3.752 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.17 Mbit/s
95th percentile per-packet one-way delay: 0.960 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 222.17 Mbit/s
95th percentile per-packet one-way delay: 0.960 ms
Loss rate: 0.01%
```

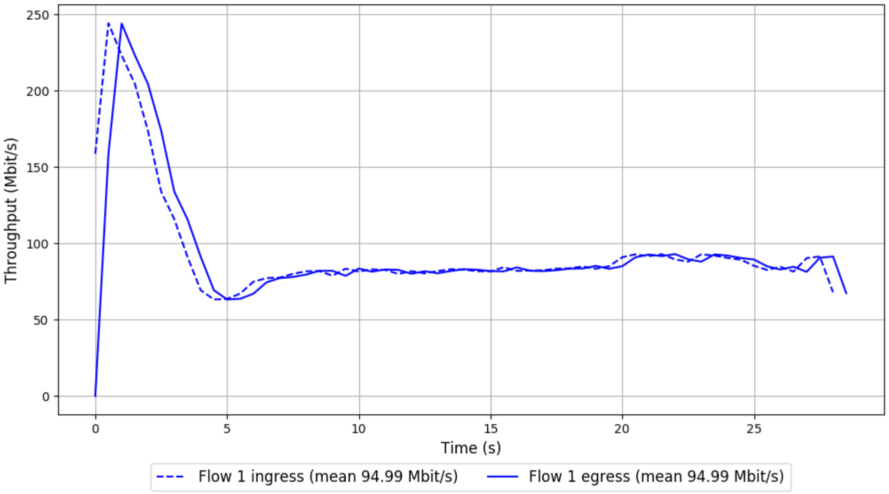
Run 5: Report of Indigo-MusesC5 — Data Link

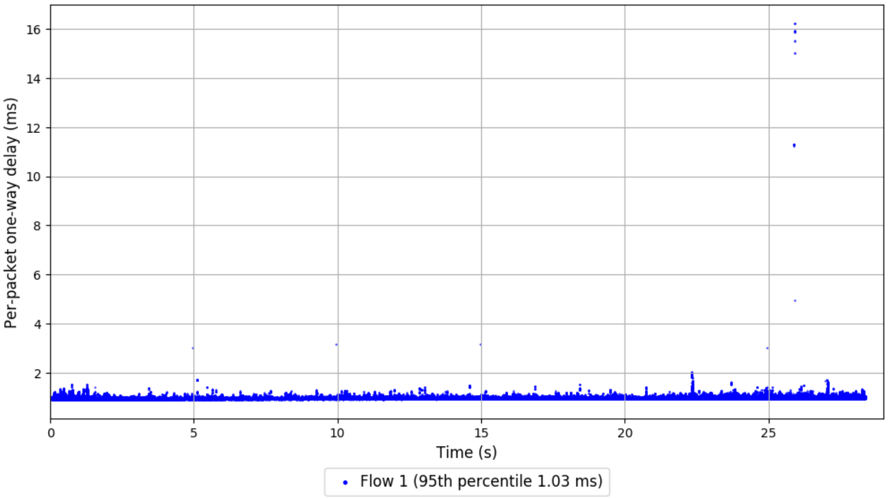




```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-12 10:08:43
End at: 2019-07-12 10:09:13
Local clock offset: 6.695 ms
Remote clock offset: 3.696 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.01%
```

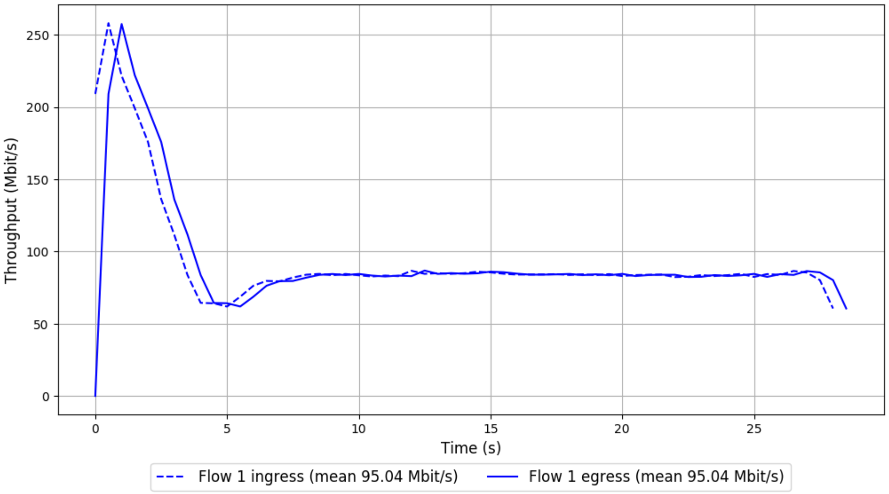
Run 1: Report of Indigo-MusesD — Data Link

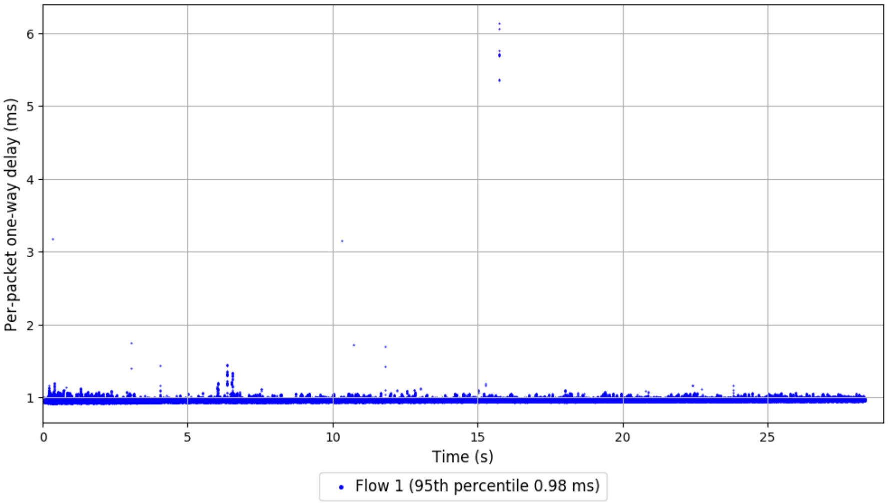




```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-12 10:41:54
End at: 2019-07-12 10:42:24
Local clock offset: 6.111 ms
Remote clock offset: 3.301 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
```

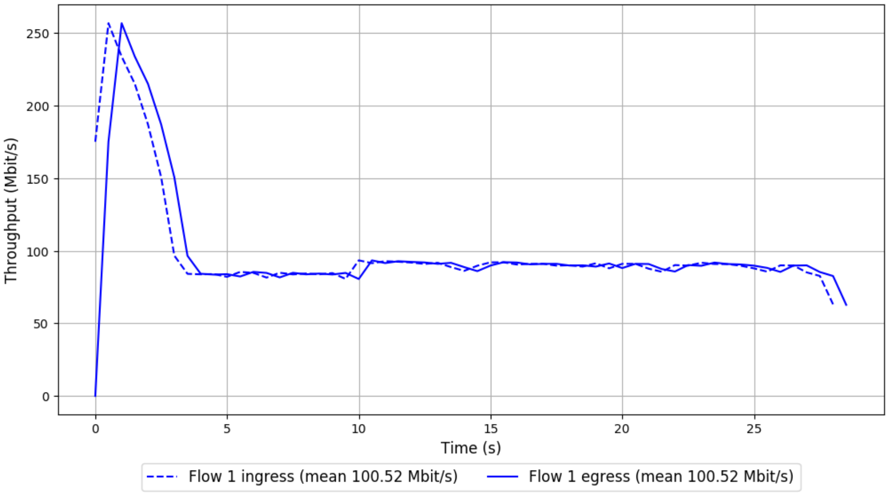
Run 2: Report of Indigo-MusesD — Data Link

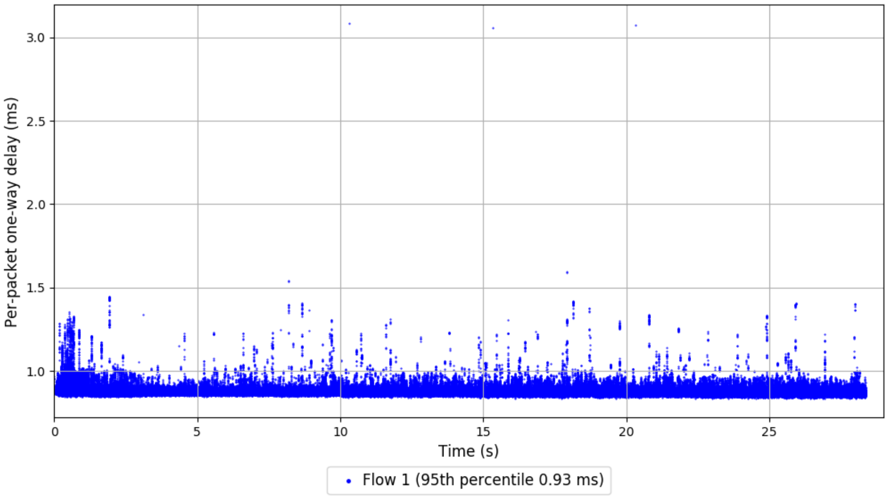




```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-12 11:15:26
End at: 2019-07-12 11:15:56
Local clock offset: 4.867 ms
Remote clock offset: -0.662 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 100.52 Mbit/s
95th percentile per-packet one-way delay: 0.929 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 100.52 Mbit/s
95th percentile per-packet one-way delay: 0.929 ms
Loss rate: 0.01%
```

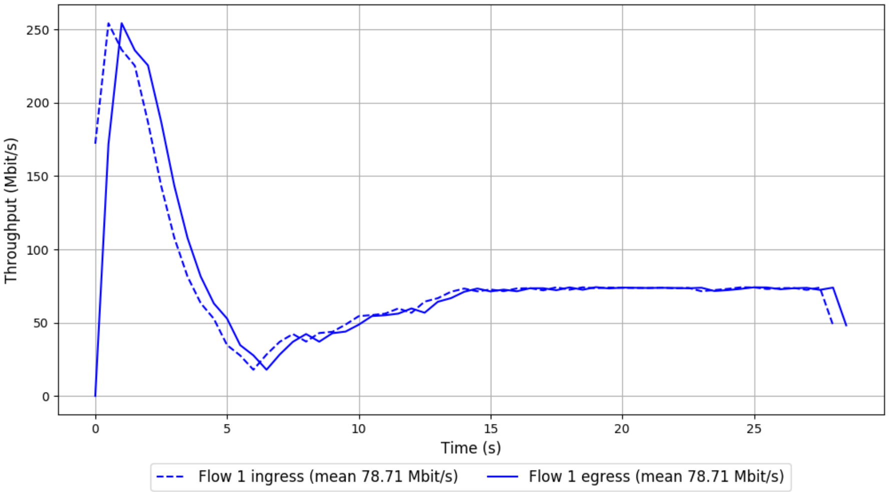
Run 3: Report of Indigo-MusesD — Data Link

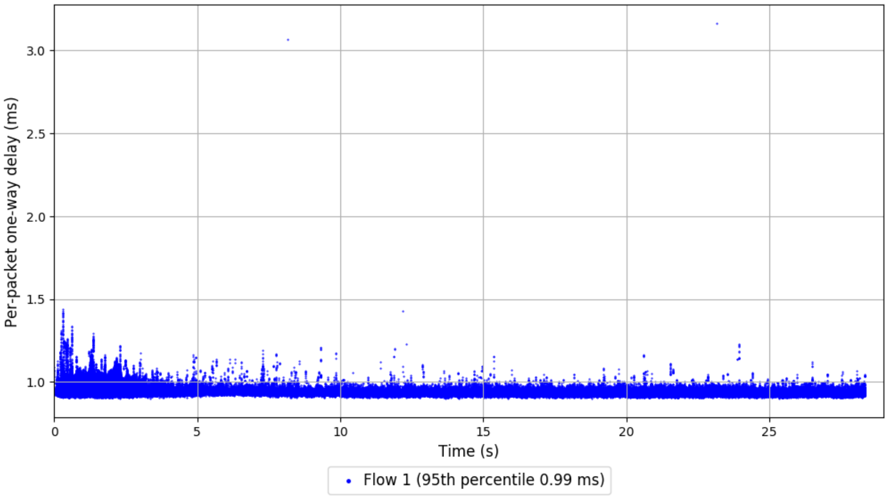




```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-12 11:48:53
End at: 2019-07-12 11:49:23
Local clock offset: 4.927 ms
Remote clock offset: -0.612 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.71 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 78.71 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
```

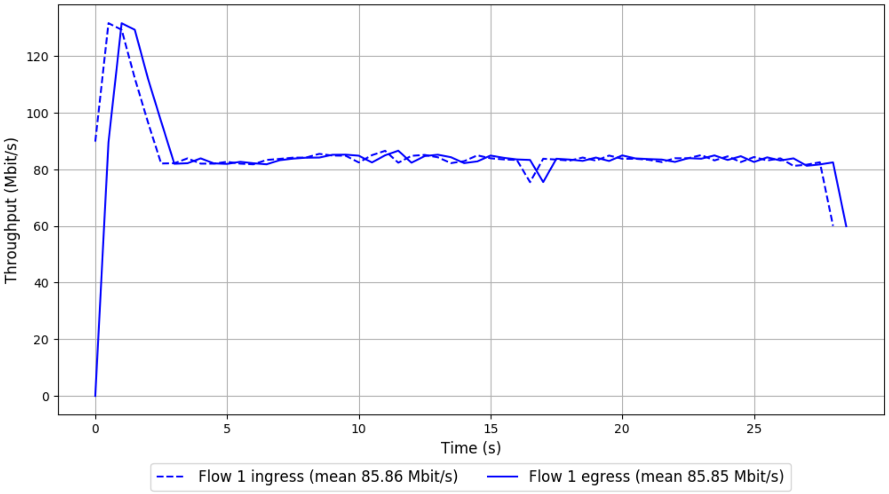
Run 4: Report of Indigo-MusesD — Data Link

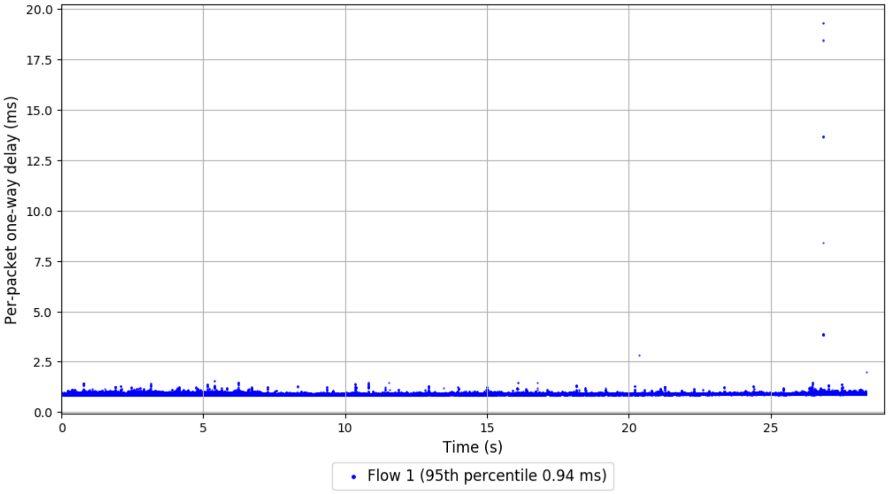




```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-12 12:22:25
End at: 2019-07-12 12:22:55
Local clock offset: 5.125 ms
Remote clock offset: 3.124 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.85 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.85 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.00%
```

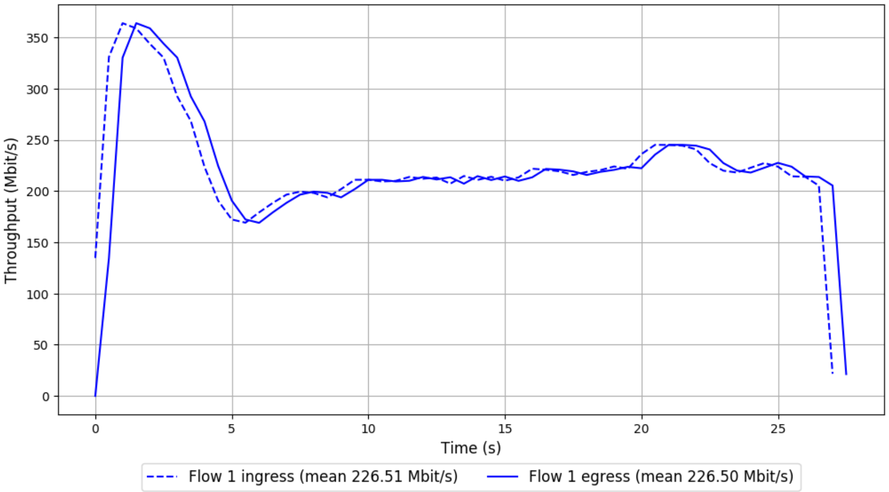
Run 5: Report of Indigo-MusesD — Data Link

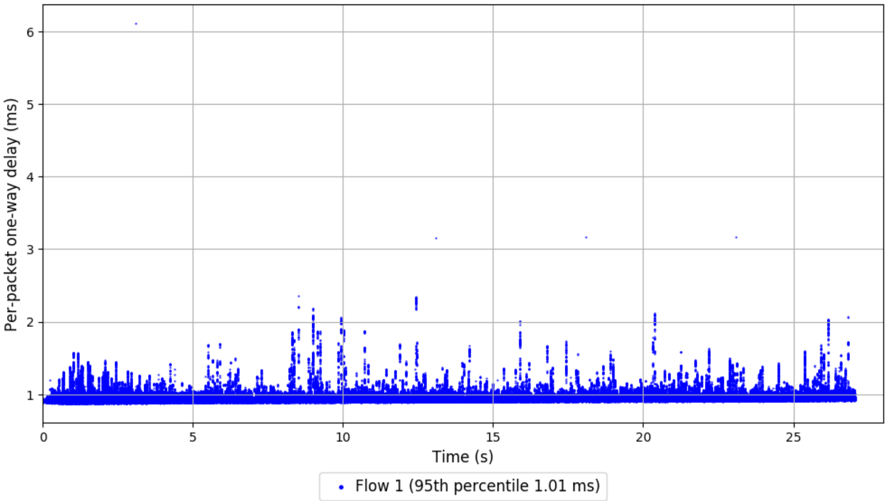




```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-12 10:07:22
End at: 2019-07-12 10:07:52
Local clock offset: 6.747 ms
Remote clock offset: 3.667 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.50 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 226.50 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.01%
```

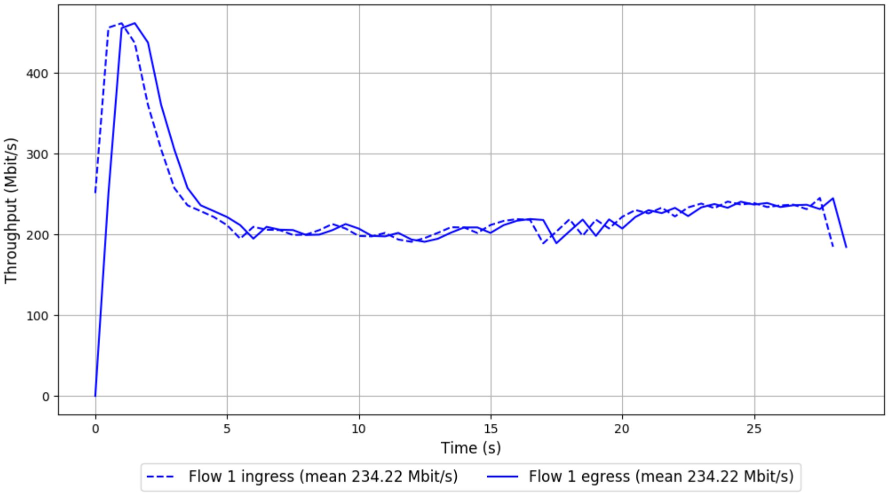
Run 1: Report of Indigo-MusesT — Data Link

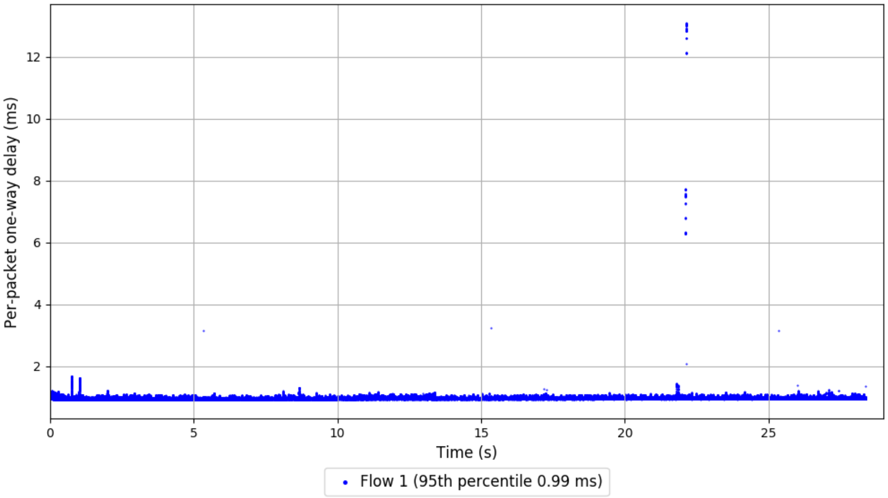




```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-12 10:40:33
End at: 2019-07-12 10:41:03
Local clock offset: 6.143 ms
Remote clock offset: 3.277 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.22 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 234.22 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.01%
```

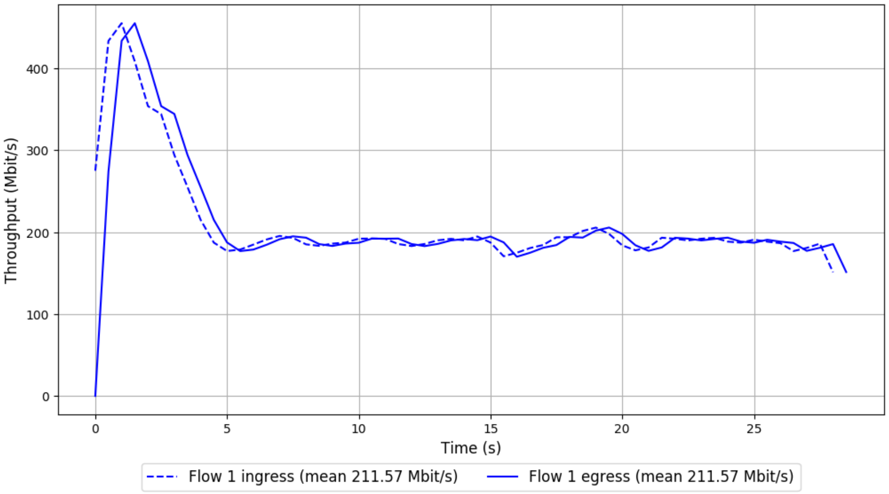
Run 2: Report of Indigo-MusesT — Data Link

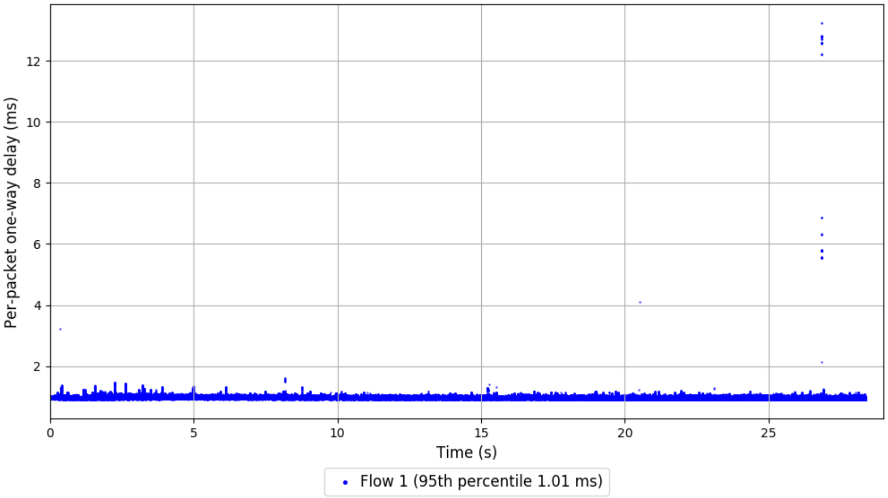




```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-12 11:14:06
End at: 2019-07-12 11:14:36
Local clock offset: 4.927 ms
Remote clock offset: -0.641 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.57 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.57 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.00%
```

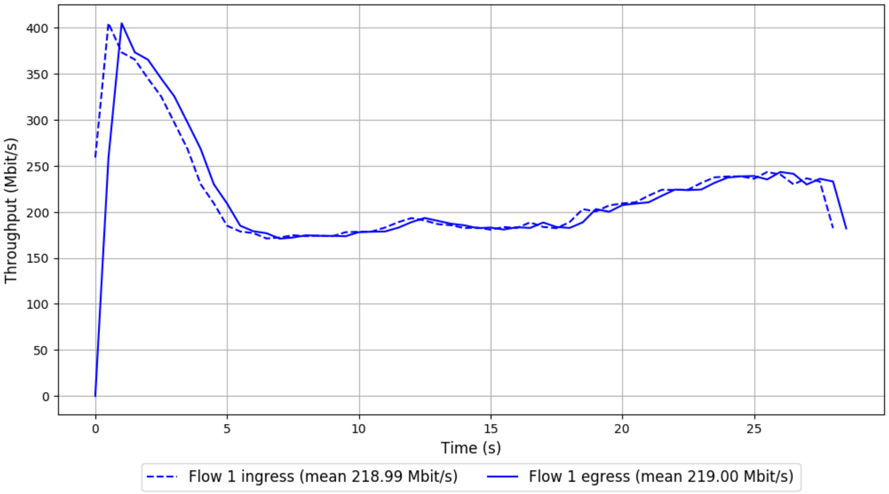
Run 3: Report of Indigo-MusesT — Data Link

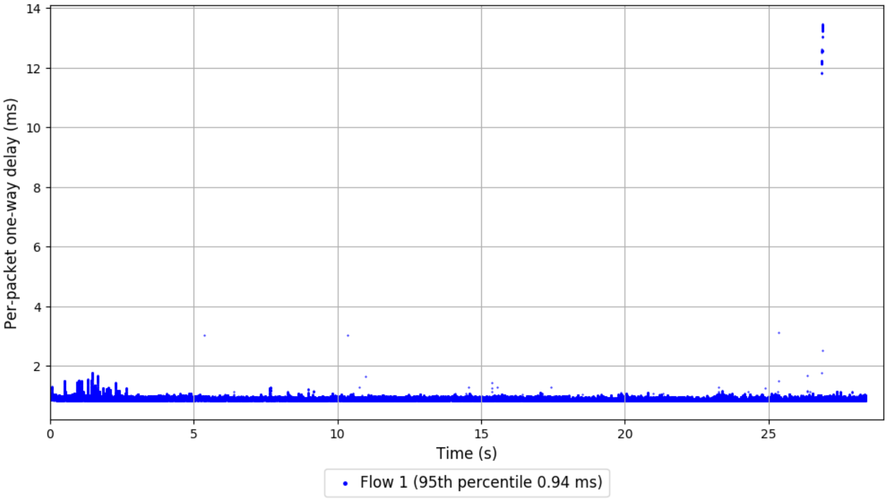




```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-12 11:47:33
End at: 2019-07-12 11:48:03
Local clock offset: 4.928 ms
Remote clock offset: -0.531 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.00 Mbit/s
95th percentile per-packet one-way delay: 0.942 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 219.00 Mbit/s
95th percentile per-packet one-way delay: 0.942 ms
Loss rate: 0.01%
```

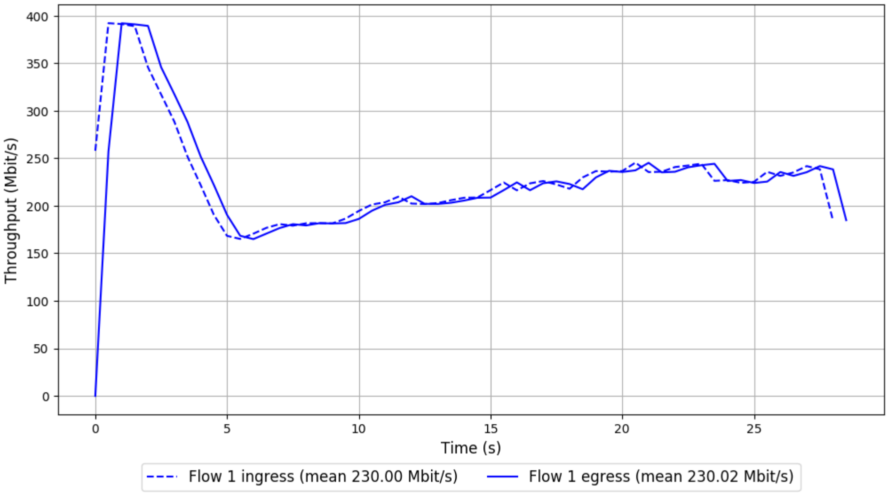
Run 4: Report of Indigo-MusesT — Data Link

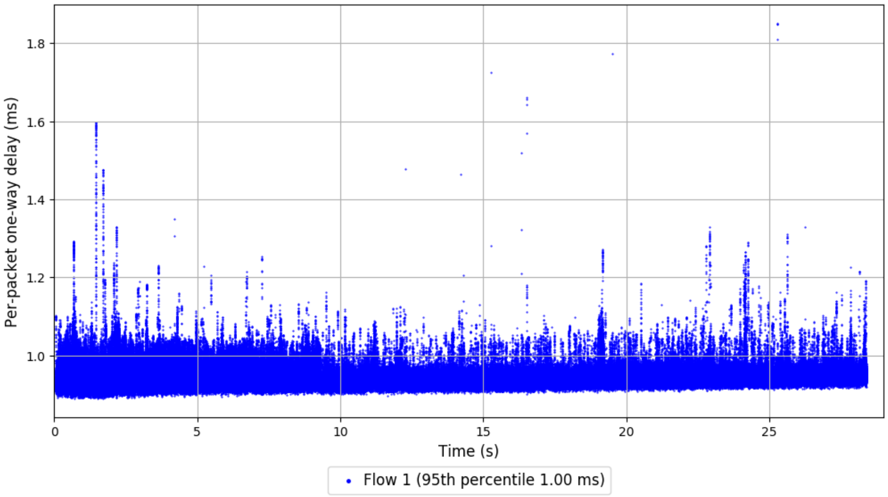




```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-12 12:21:04
End at: 2019-07-12 12:21:34
Local clock offset: 5.132 ms
Remote clock offset: 2.997 ms

# Below is generated by plot.py at 2019-07-12 13:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.02 Mbit/s
95th percentile per-packet one-way delay: 0.996 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.02 Mbit/s
95th percentile per-packet one-way delay: 0.996 ms
Loss rate: 0.00%
```

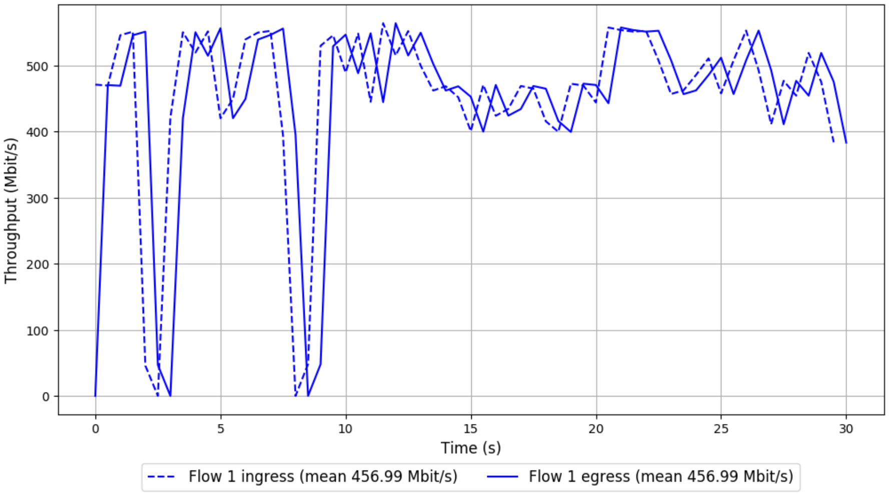
Run 5: Report of Indigo-MusesT — Data Link

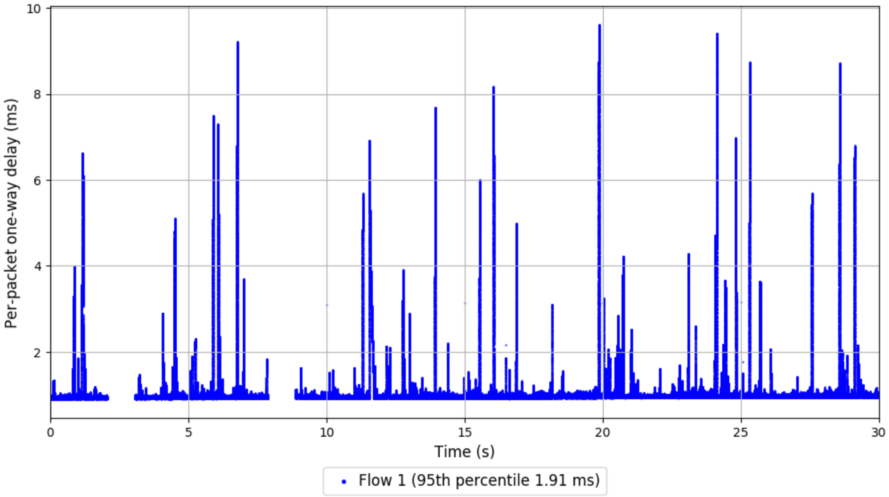




```
Run 1: Statistics of LEDBAT

Start at: 2019-07-12 10:34:47
End at: 2019-07-12 10:35:17
Local clock offset: 6.462 ms
Remote clock offset: 3.259 ms

# Below is generated by plot.py at 2019-07-12 13:38:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 456.99 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 456.99 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.00%
```

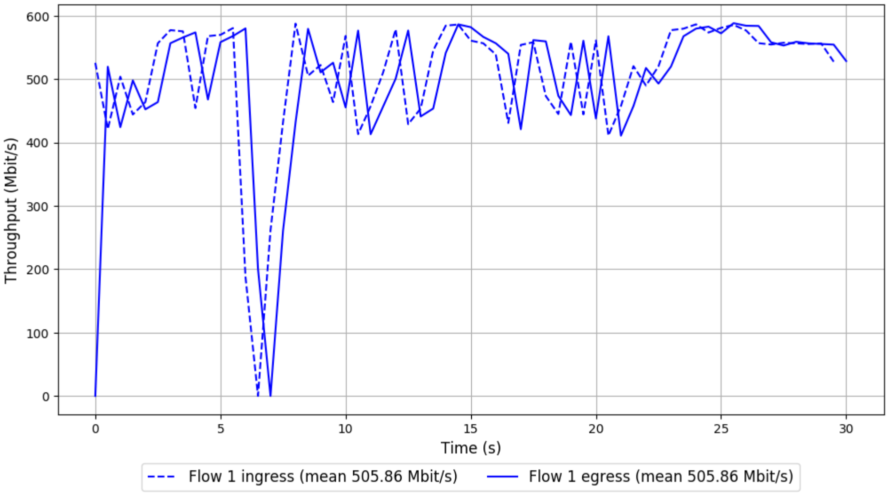
Run 1: Report of LEDBAT — Data Link

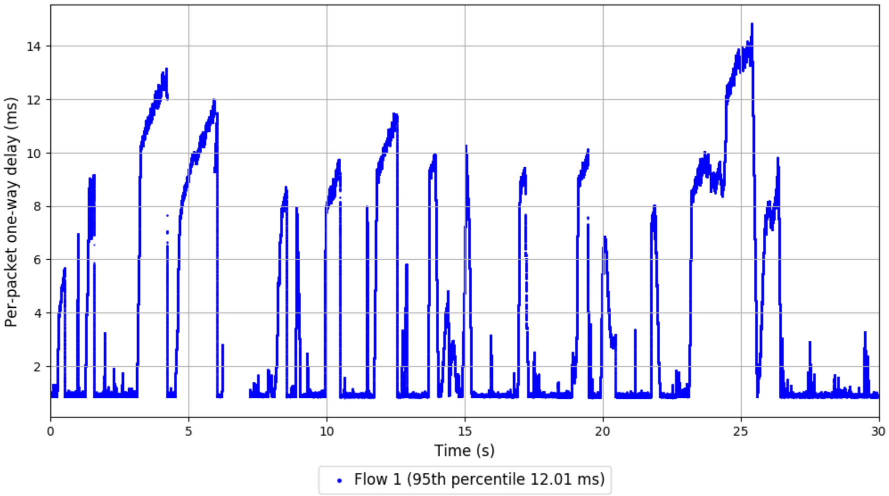




```
Run 2: Statistics of LEDBAT

Start at: 2019-07-12 11:08:19
End at: 2019-07-12 11:08:49
Local clock offset: 5.133 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2019-07-12 13:39:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 505.86 Mbit/s
95th percentile per-packet one-way delay: 12.014 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 505.86 Mbit/s
95th percentile per-packet one-way delay: 12.014 ms
Loss rate: 0.01%
```

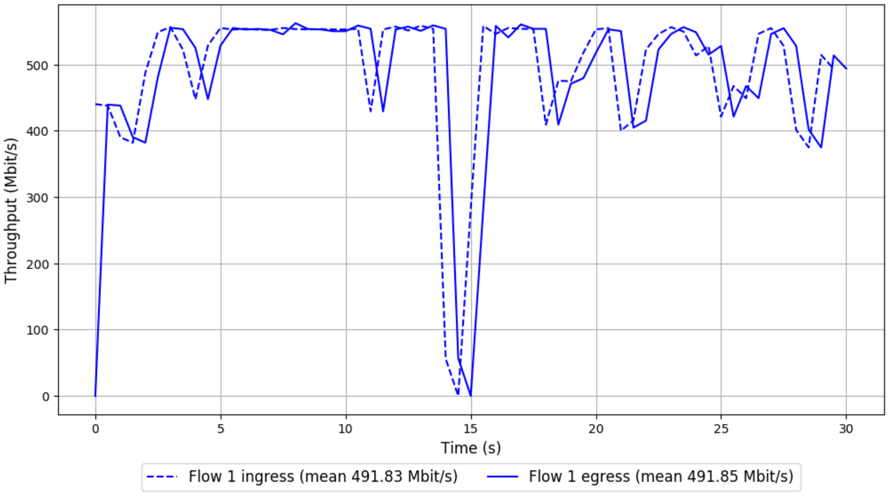
Run 2: Report of LEDBAT — Data Link

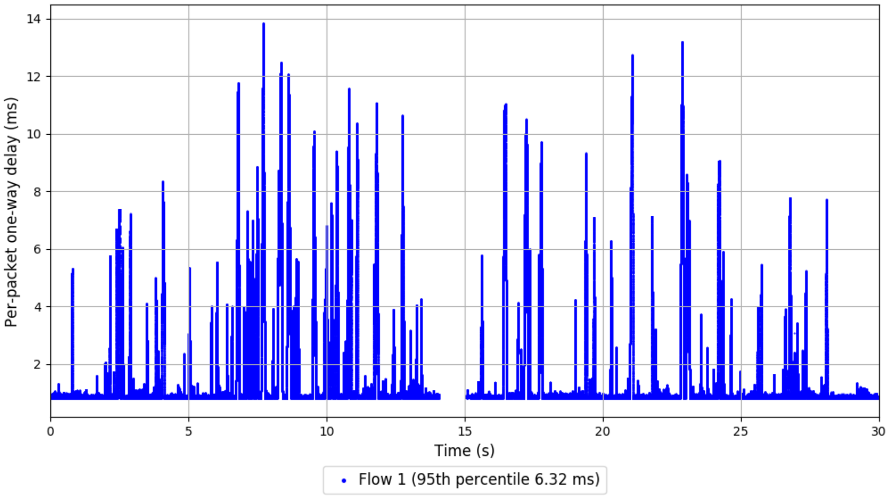




```
Run 3: Statistics of LEDBAT

Start at: 2019-07-12 11:41:50
End at: 2019-07-12 11:42:20
Local clock offset: 4.872 ms
Remote clock offset: -0.51 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 491.85 Mbit/s
95th percentile per-packet one-way delay: 6.315 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 491.85 Mbit/s
95th percentile per-packet one-way delay: 6.315 ms
Loss rate: 0.00%
```

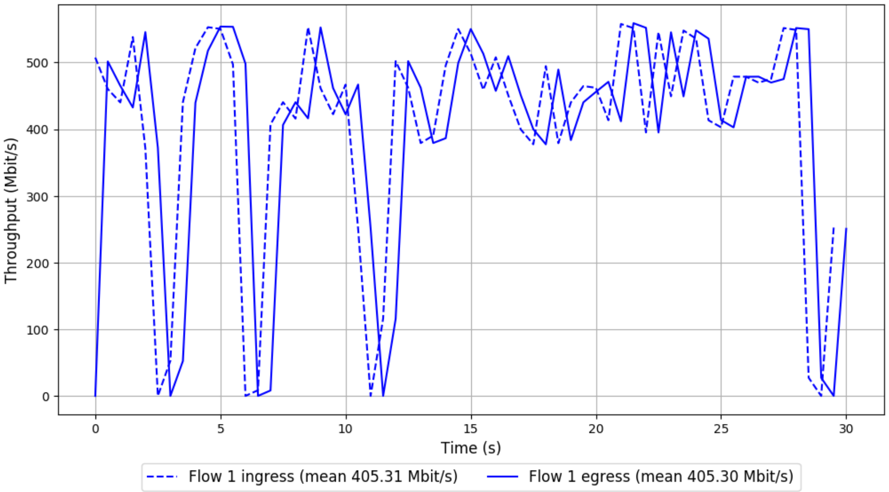
Run 3: Report of LEDBAT — Data Link

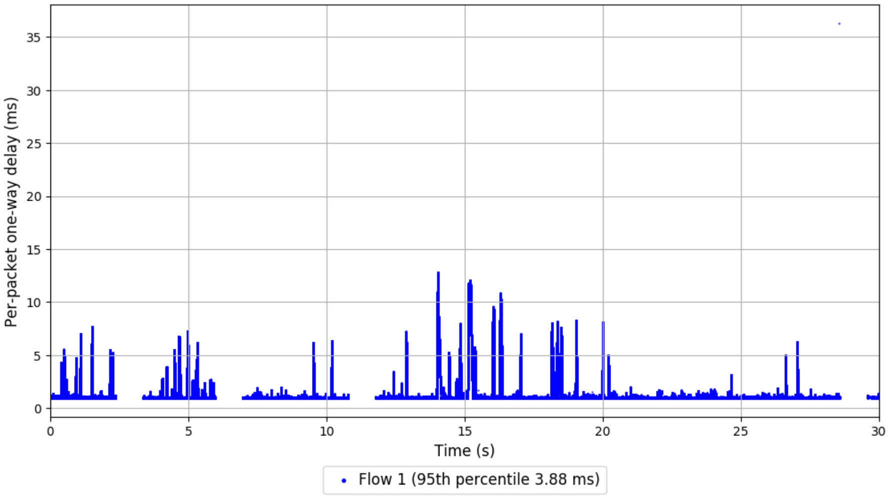




```
Run 4: Statistics of LEDBAT

Start at: 2019-07-12 12:15:23
End at: 2019-07-12 12:15:53
Local clock offset: 5.107 ms
Remote clock offset: 2.563 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 405.30 Mbit/s
95th percentile per-packet one-way delay: 3.880 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 405.30 Mbit/s
95th percentile per-packet one-way delay: 3.880 ms
Loss rate: 0.01%
```

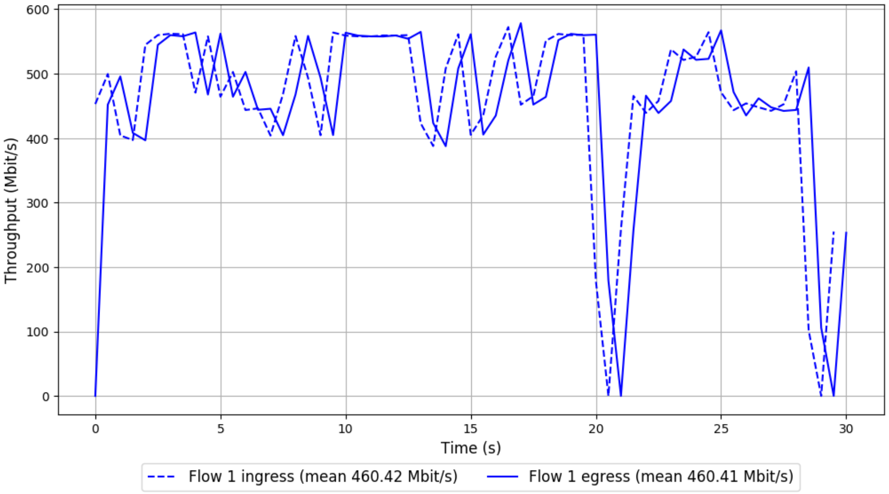
Run 4: Report of LEDBAT — Data Link

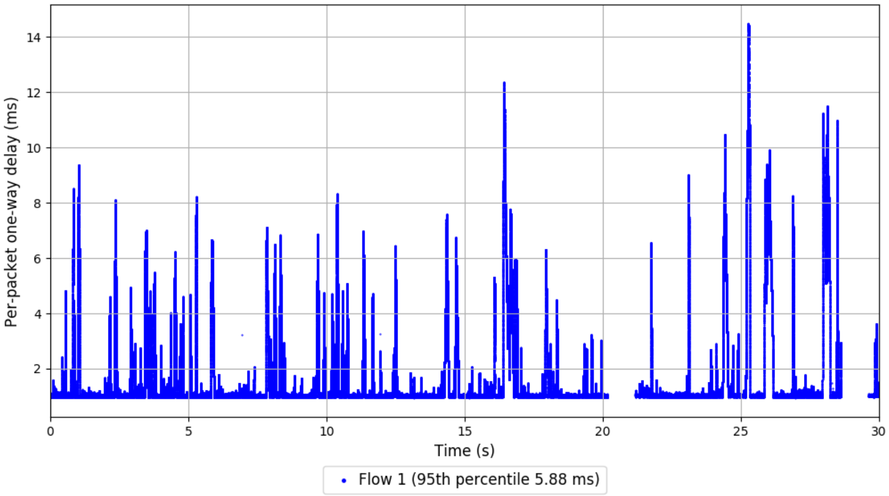




```
Run 5: Statistics of LEDBAT

Start at: 2019-07-12 12:48:58
End at: 2019-07-12 12:49:28
Local clock offset: 5.308 ms
Remote clock offset: 3.836 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 460.41 Mbit/s
95th percentile per-packet one-way delay: 5.883 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 460.41 Mbit/s
95th percentile per-packet one-way delay: 5.883 ms
Loss rate: 0.01%
```

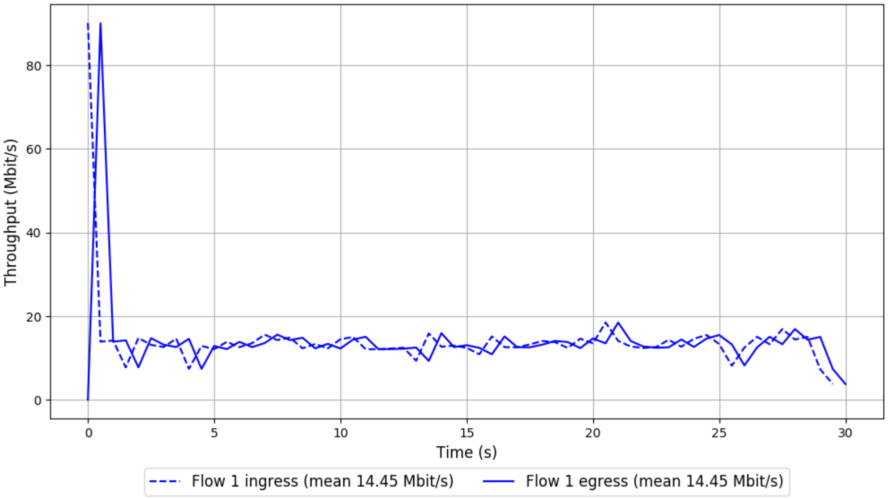
Run 5: Report of LEDBAT — Data Link

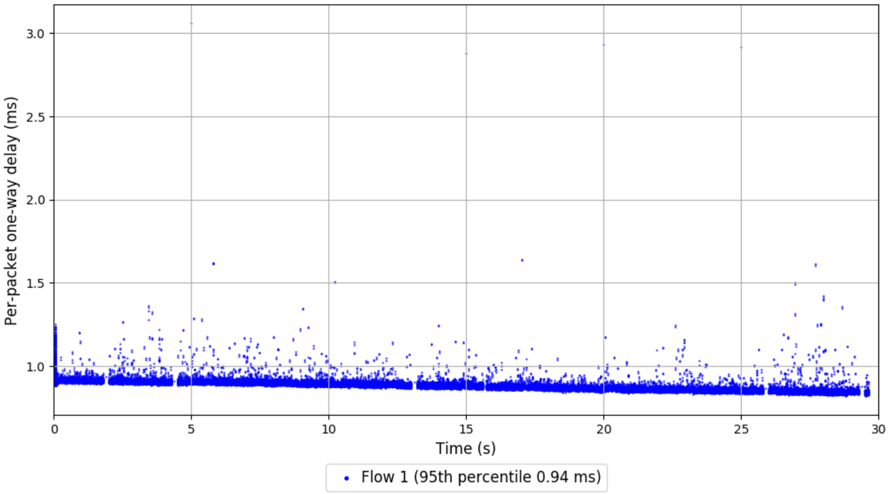




```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 10:19:54
End at: 2019-07-12 10:20:24
Local clock offset: 6.904 ms
Remote clock offset: 3.889 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.00%
```

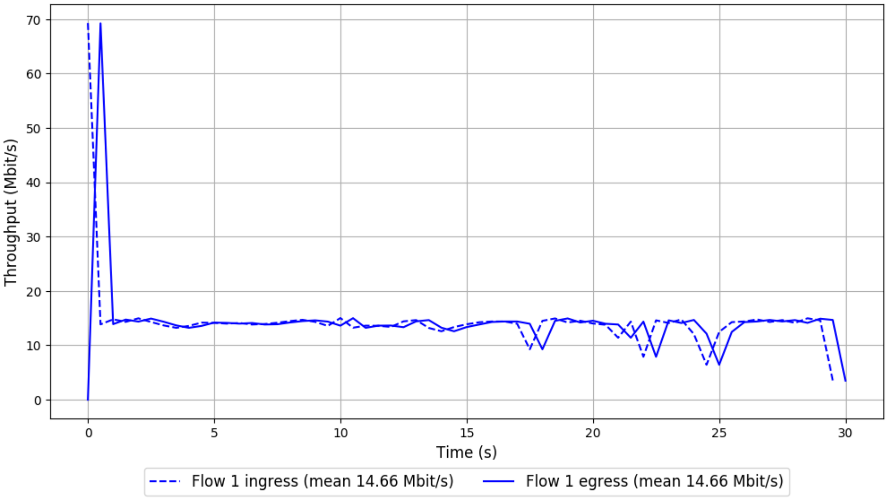
Run 1: Report of Muses_DecisionTree — Data Link

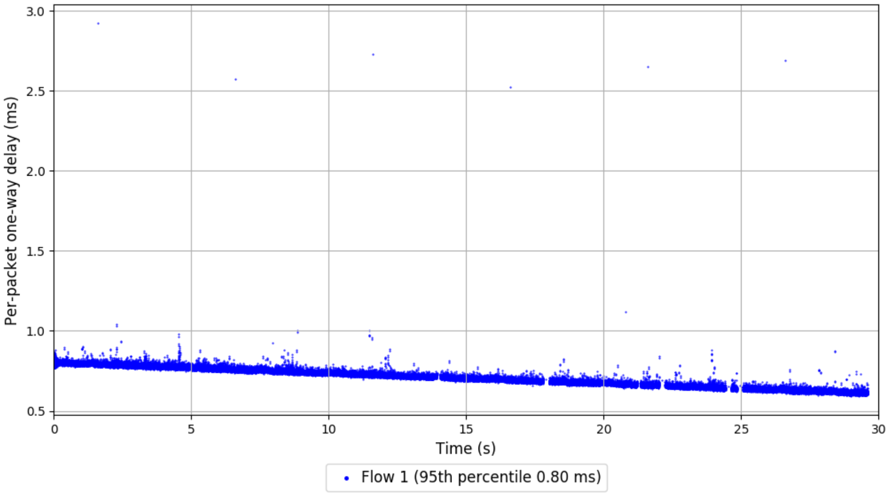




```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 10:53:07
End at: 2019-07-12 10:53:37
Local clock offset: 6.049 ms
Remote clock offset: 2.843 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 0.804 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 0.804 ms
Loss rate: 0.01%
```

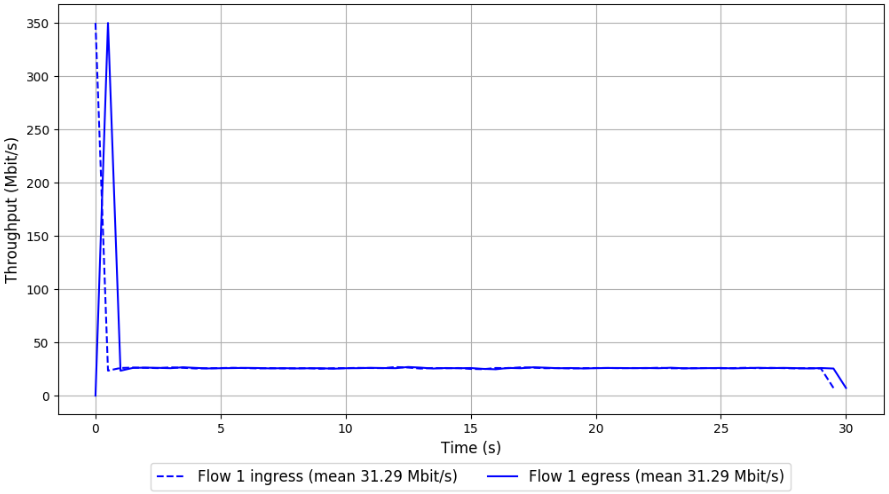
Run 2: Report of Muses_DecisionTree — Data Link

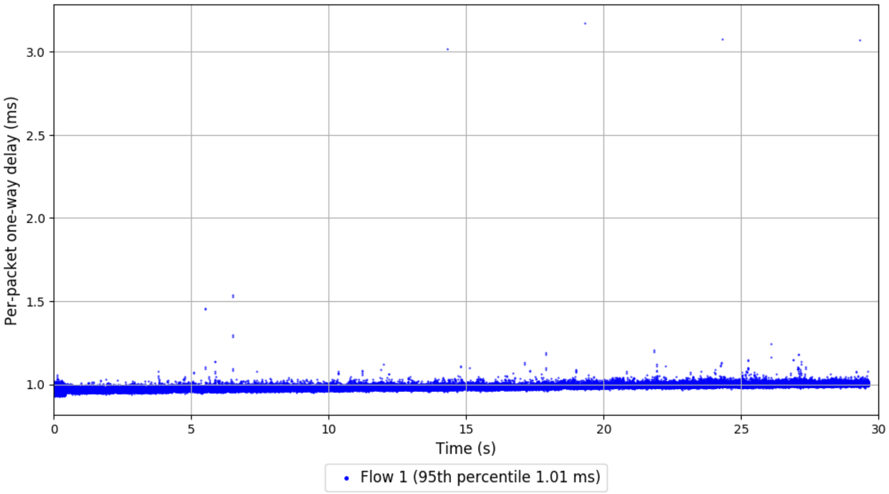




```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 11:26:39
End at: 2019-07-12 11:27:09
Local clock offset: 4.724 ms
Remote clock offset: -1.065 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 1.010 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 1.010 ms
Loss rate: 0.00%
```

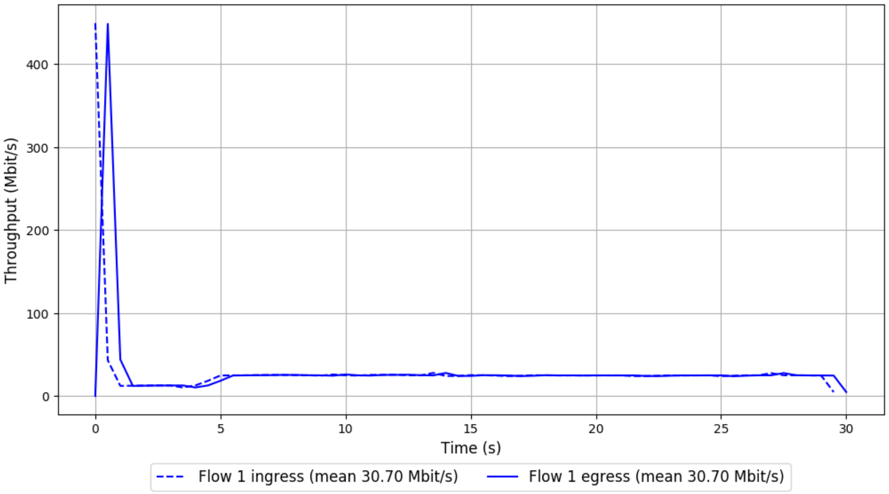
Run 3: Report of Muses_DecisionTree — Data Link

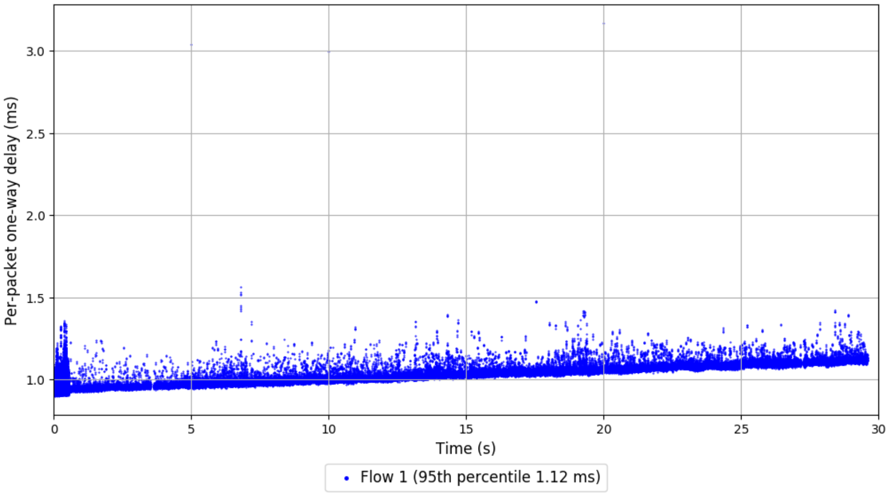




```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 12:00:07
End at: 2019-07-12 12:00:37
Local clock offset: 4.968 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.00%
```

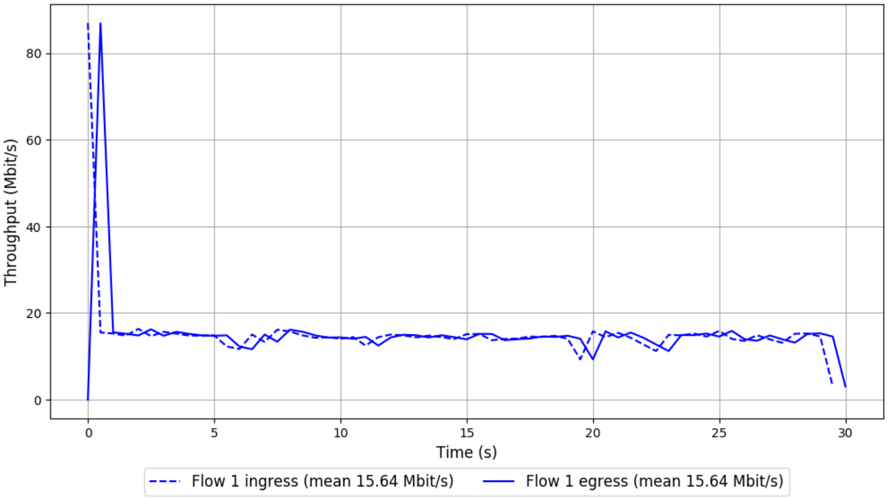
Run 4: Report of Muses_DecisionTree — Data Link

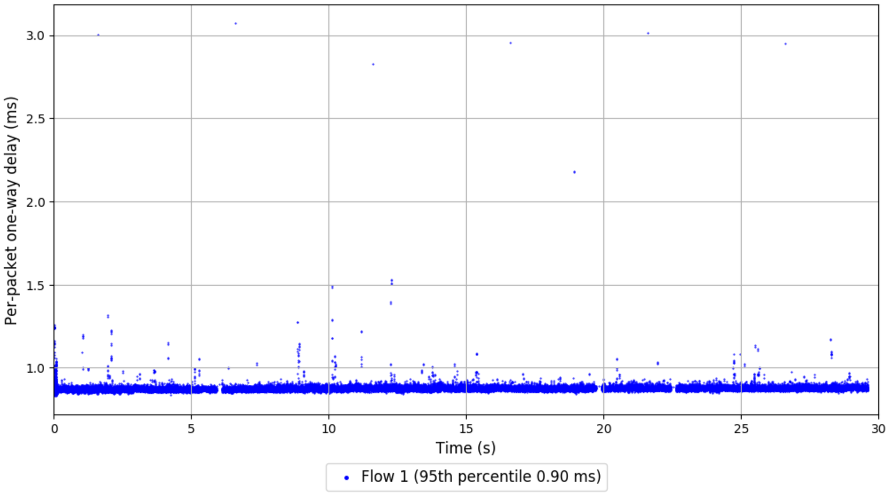




```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 12:33:39
End at: 2019-07-12 12:34:09
Local clock offset: 5.193 ms
Remote clock offset: 3.585 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.00%
```

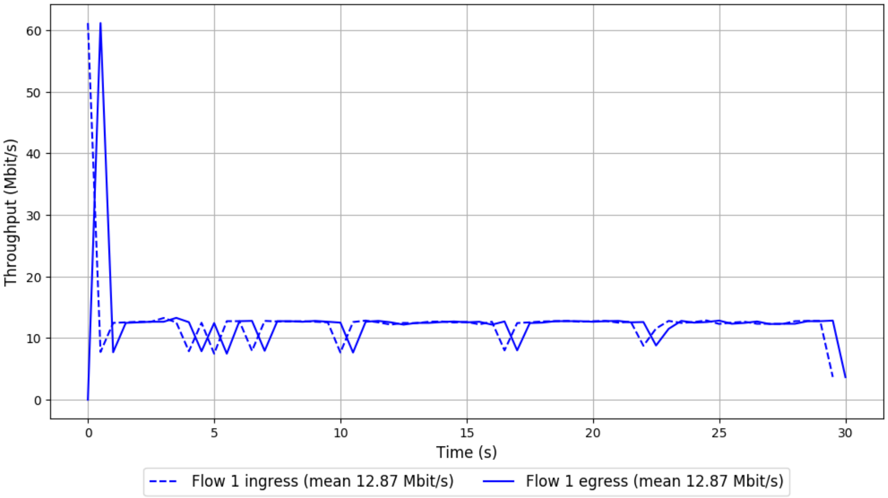
Run 5: Report of Muses_DecisionTree — Data Link

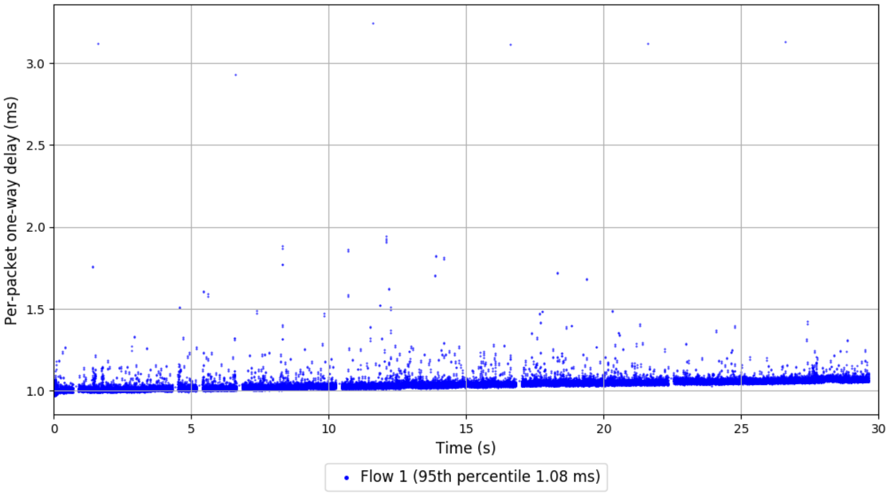




```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 10:30:44
End at: 2019-07-12 10:31:14
Local clock offset: 6.995 ms
Remote clock offset: 3.305 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.00%
```

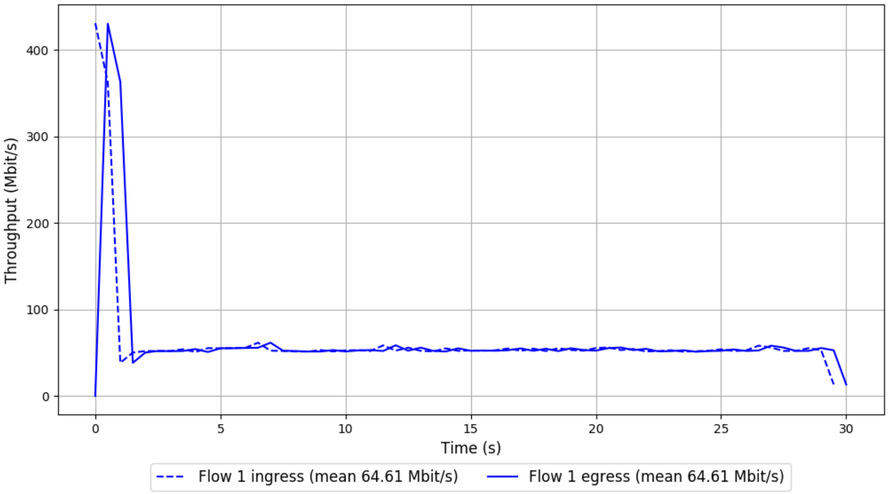
Run 1: Report of Muses_DecisionTreeH0 — Data Link

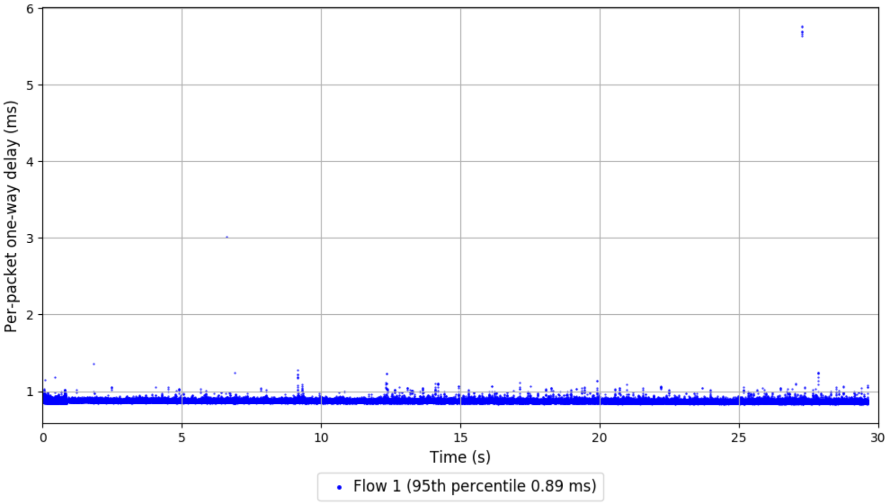




```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 11:03:56
End at: 2019-07-12 11:04:26
Local clock offset: 5.489 ms
Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.61 Mbit/s
95th percentile per-packet one-way delay: 0.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.61 Mbit/s
95th percentile per-packet one-way delay: 0.894 ms
Loss rate: 0.00%
```

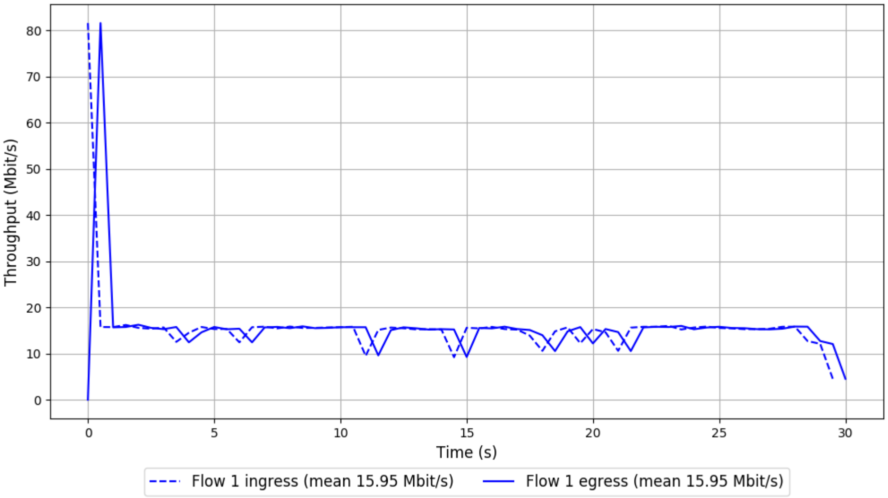
Run 2: Report of Muses_DecisionTreeH0 — Data Link

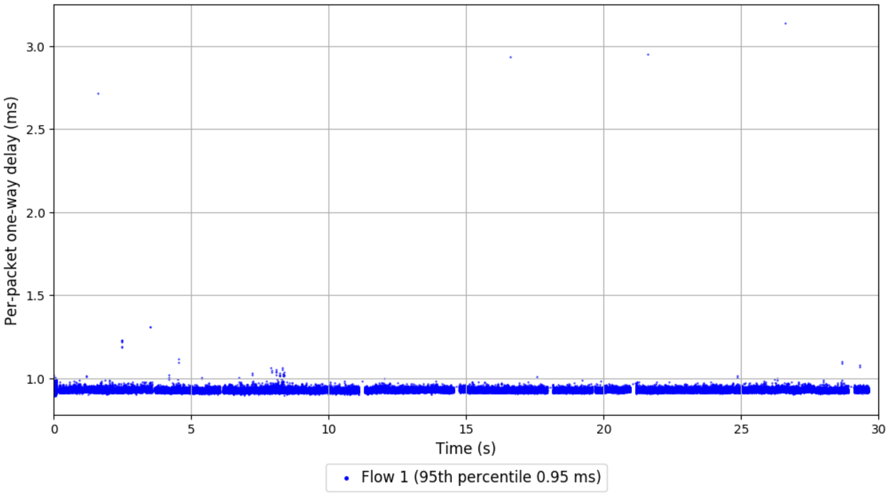




```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 11:37:29
End at: 2019-07-12 11:37:59
Local clock offset: 4.835 ms
Remote clock offset: -0.611 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.95 Mbit/s
95th percentile per-packet one-way delay: 0.949 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.95 Mbit/s
95th percentile per-packet one-way delay: 0.949 ms
Loss rate: 0.00%
```

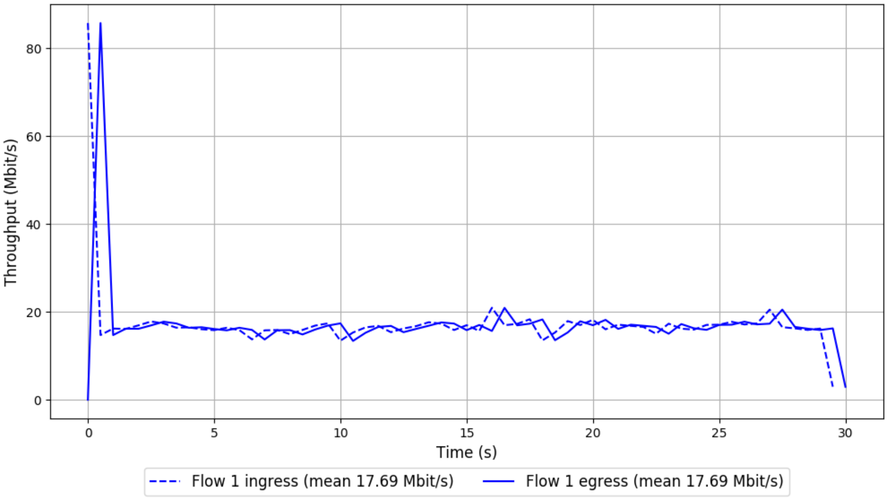
Run 3: Report of Muses_DecisionTreeH0 — Data Link

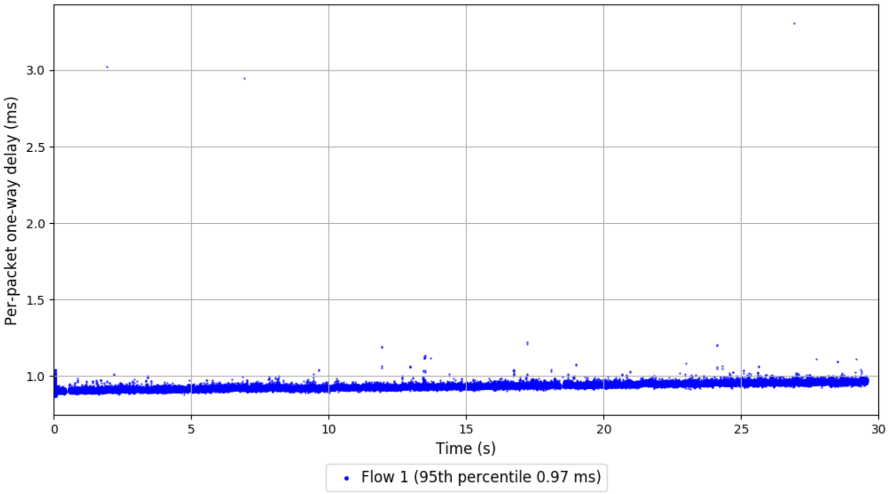




```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 12:11:00
End at: 2019-07-12 12:11:30
Local clock offset: 5.107 ms
Remote clock offset: 2.17 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.69 Mbit/s
95th percentile per-packet one-way delay: 0.966 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 17.69 Mbit/s
95th percentile per-packet one-way delay: 0.966 ms
Loss rate: 0.01%
```

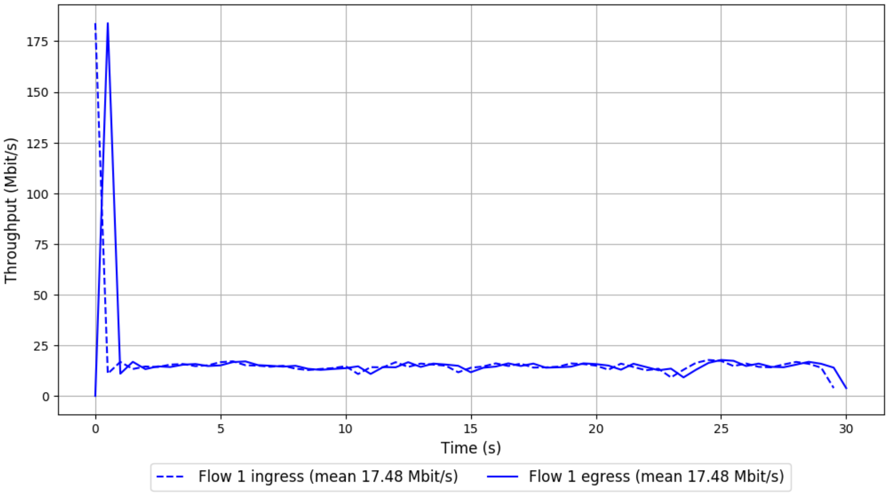
Run 4: Report of Muses_DecisionTreeH0 — Data Link

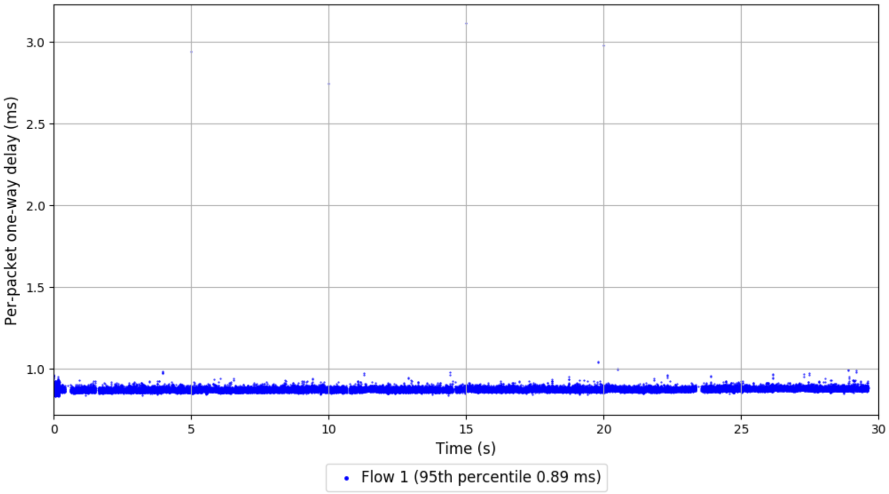




```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 12:44:35
End at: 2019-07-12 12:45:05
Local clock offset: 5.279 ms
Remote clock offset: 3.848 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.48 Mbit/s
95th percentile per-packet one-way delay: 0.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 17.48 Mbit/s
95th percentile per-packet one-way delay: 0.891 ms
Loss rate: 0.00%
```

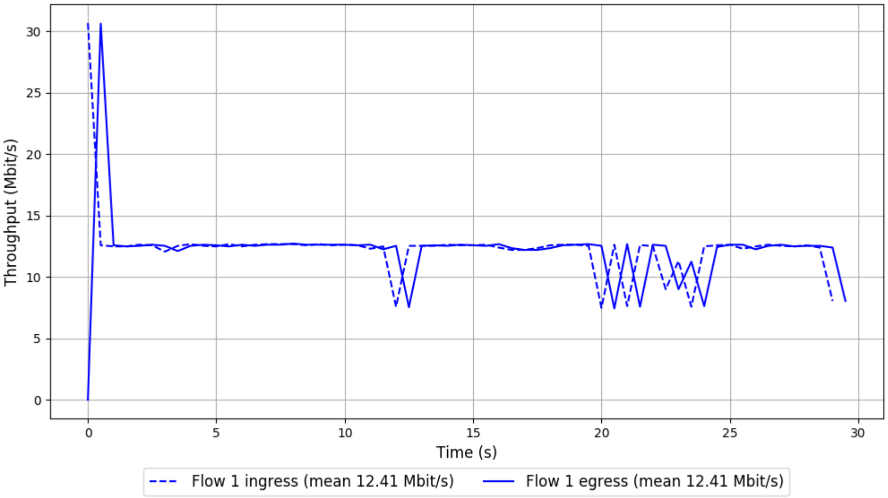
Run 5: Report of Muses_DecisionTreeH0 — Data Link

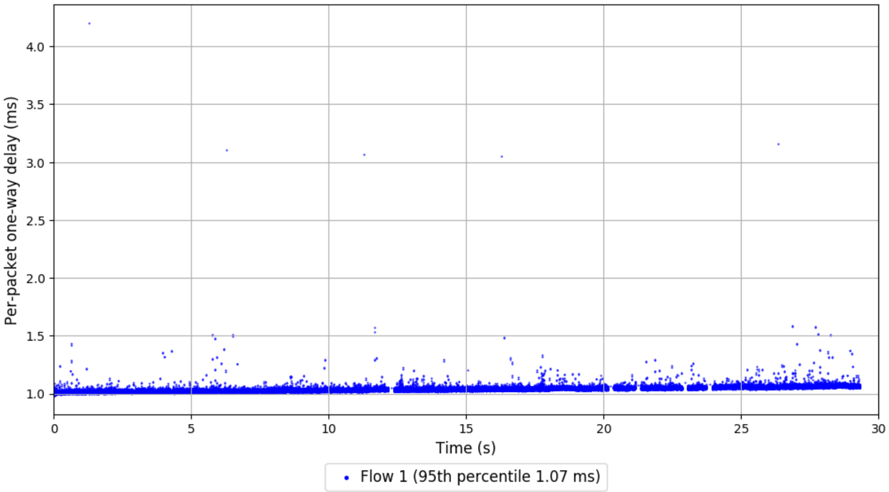




```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 10:04:33
End at: 2019-07-12 10:05:03
Local clock offset: 6.832 ms
Remote clock offset: 3.378 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.01%
```

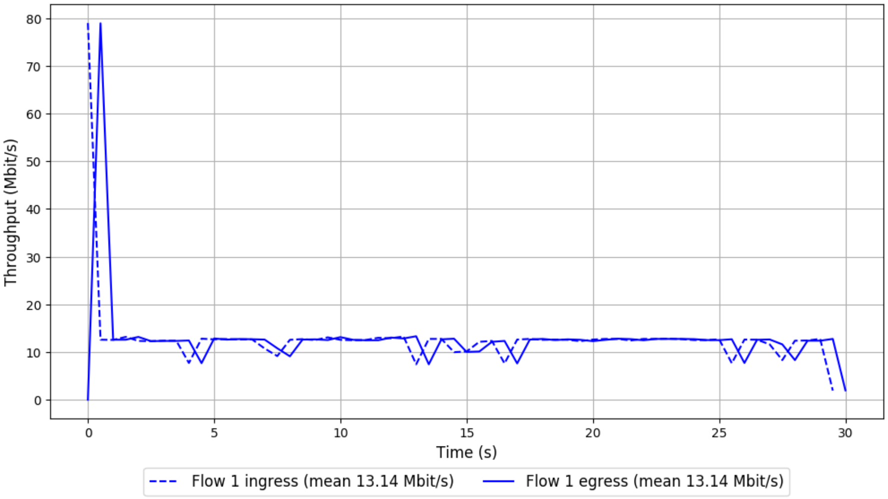
Run 1: Report of Muses_DecisionTreeR0 — Data Link

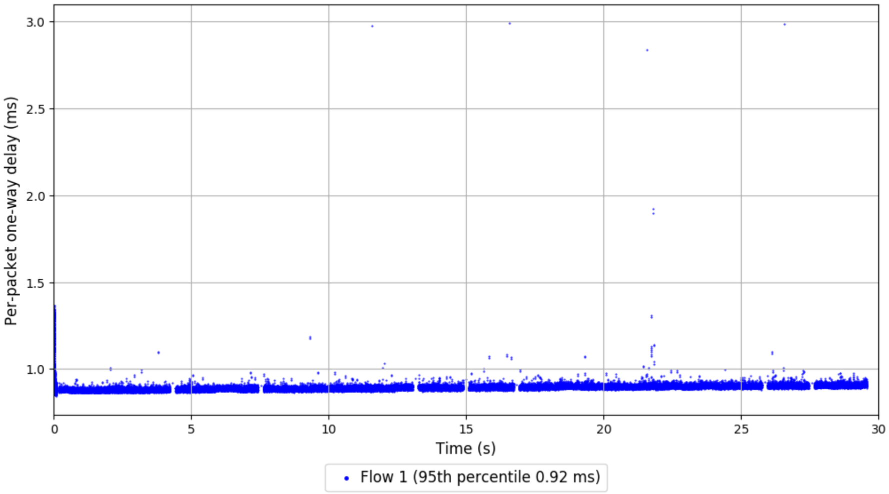




```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 10:37:42
End at: 2019-07-12 10:38:12
Local clock offset: 6.264 ms
Remote clock offset: 3.329 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%
```

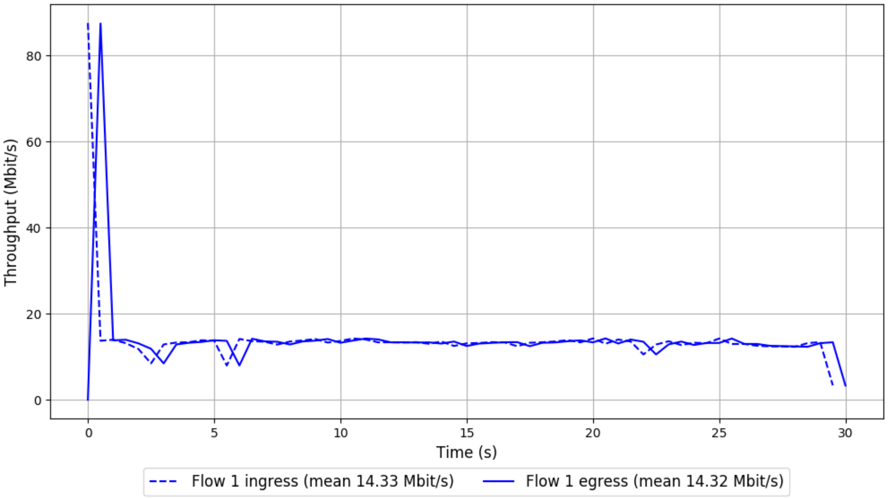
Run 2: Report of Muses_DecisionTreeR0 — Data Link

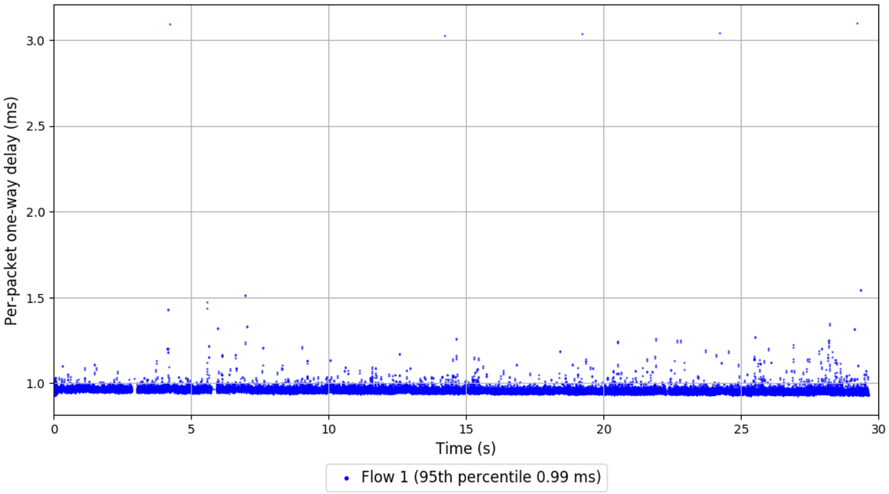




```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 11:11:16
End at: 2019-07-12 11:11:46
Local clock offset: 5.03 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.32 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.32 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
```

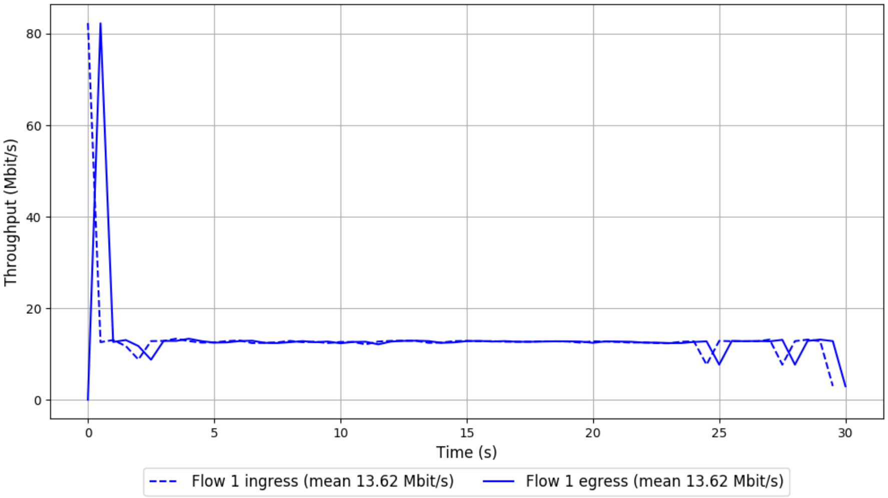
Run 3: Report of Muses_DecisionTreeR0 — Data Link

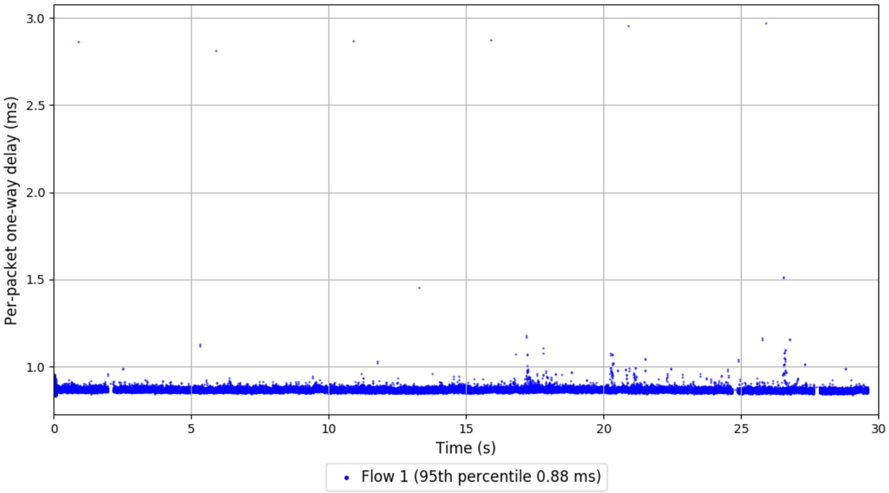




```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 11:44:44
End at: 2019-07-12 11:45:14
Local clock offset: 4.937 ms
Remote clock offset: -0.5 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 0.884 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 0.884 ms
Loss rate: 0.01%
```

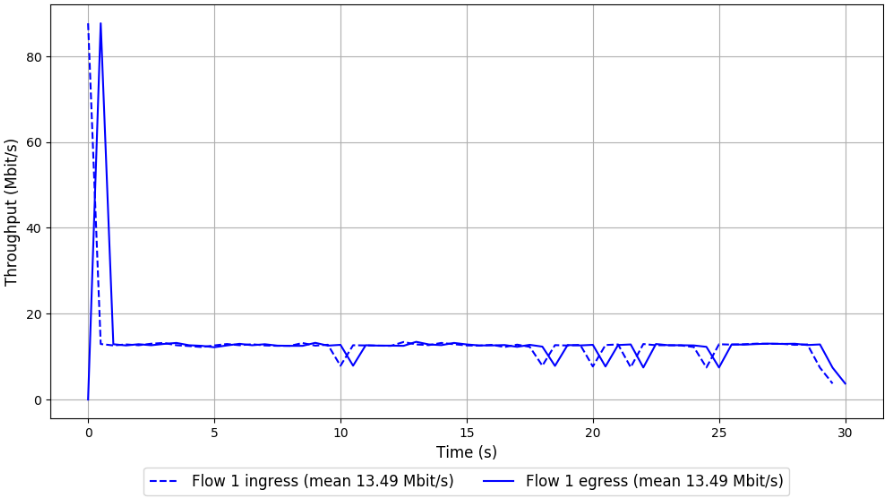
Run 4: Report of Muses_DecisionTreeR0 — Data Link

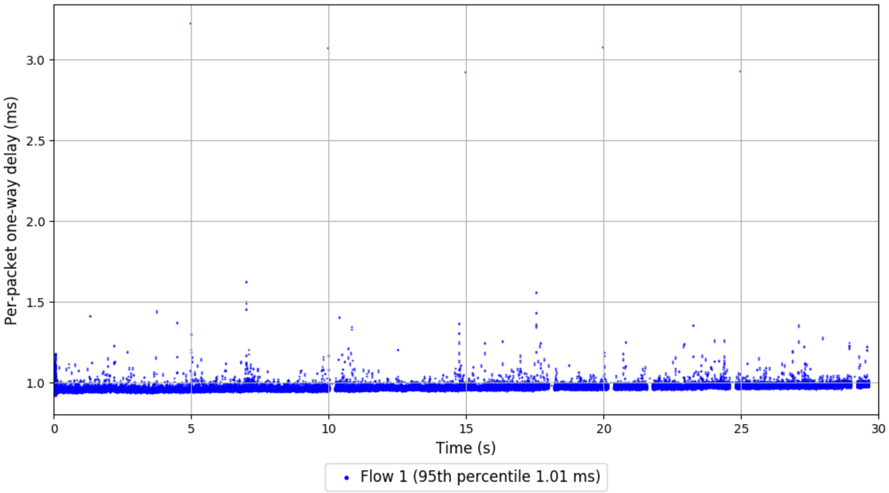




```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 12:18:14
End at: 2019-07-12 12:18:44
Local clock offset: 5.106 ms
Remote clock offset: 2.791 ms

# Below is generated by plot.py at 2019-07-12 13:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.01%
```

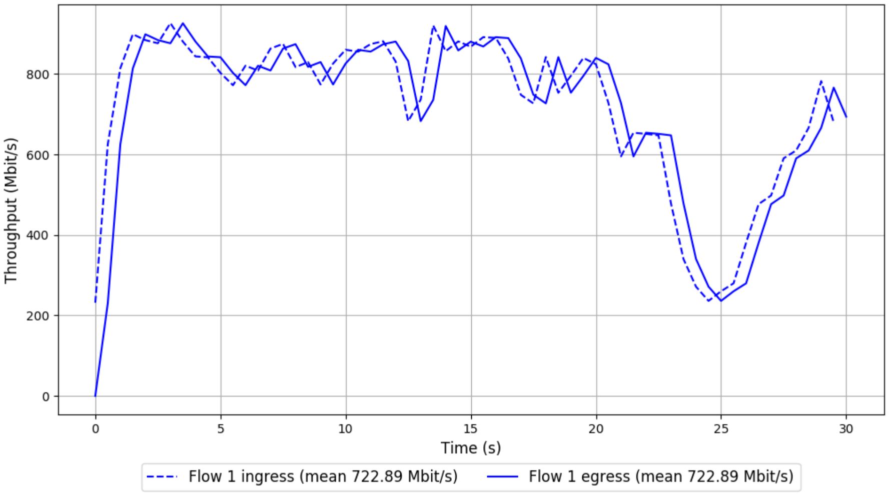
Run 5: Report of Muses_DecisionTreeR0 — Data Link

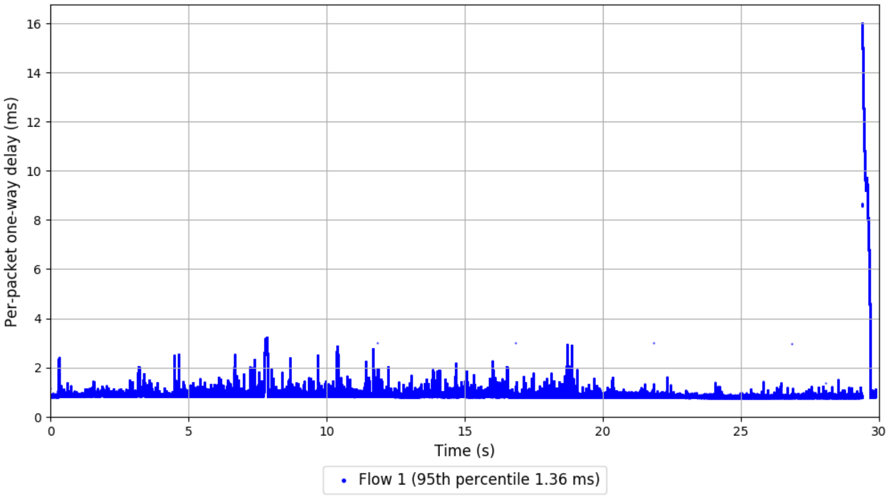




```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-12 10:21:08
End at: 2019-07-12 10:21:38
Local clock offset: 6.931 ms
Remote clock offset: 3.77 ms

# Below is generated by plot.py at 2019-07-12 13:45:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 722.89 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 722.89 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.01%
```

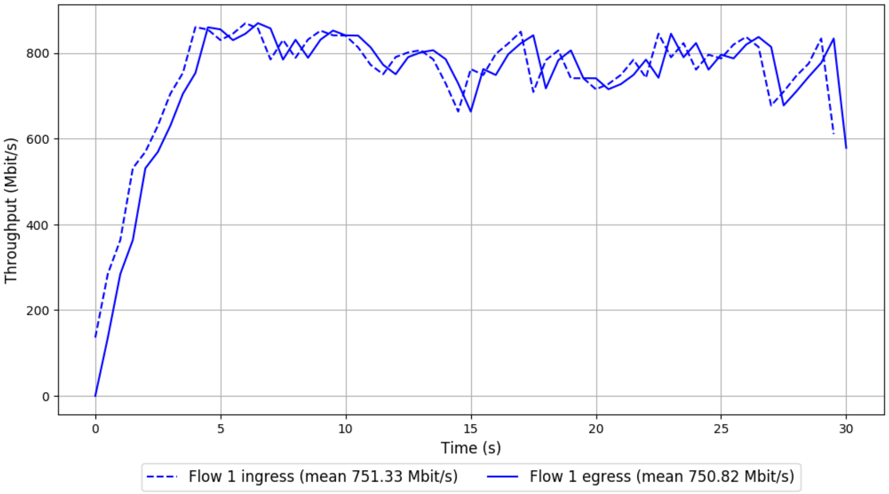
Run 1: Report of PCC-Allegro — Data Link

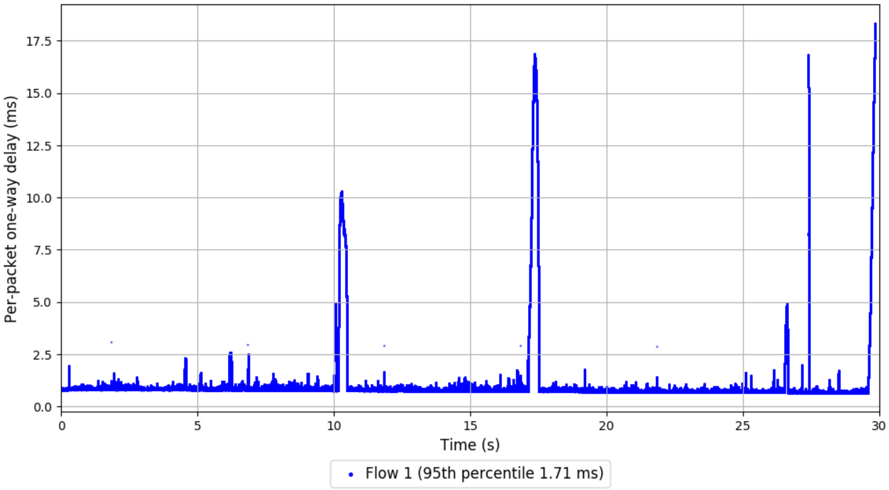




```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-12 10:54:21
End at: 2019-07-12 10:54:51
Local clock offset: 6.08 ms
Remote clock offset: 2.364 ms

# Below is generated by plot.py at 2019-07-12 13:46:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 750.82 Mbit/s
95th percentile per-packet one-way delay: 1.708 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 750.82 Mbit/s
95th percentile per-packet one-way delay: 1.708 ms
Loss rate: 0.07%
```

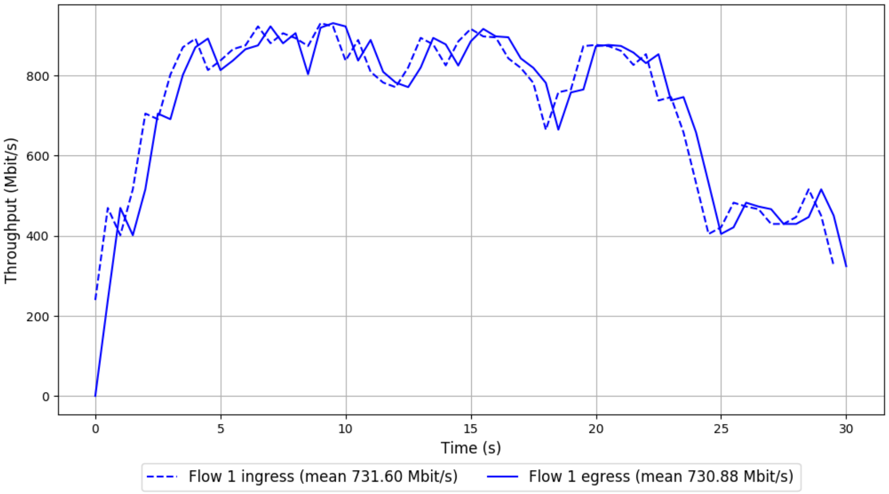
Run 2: Report of PCC-Allegro — Data Link

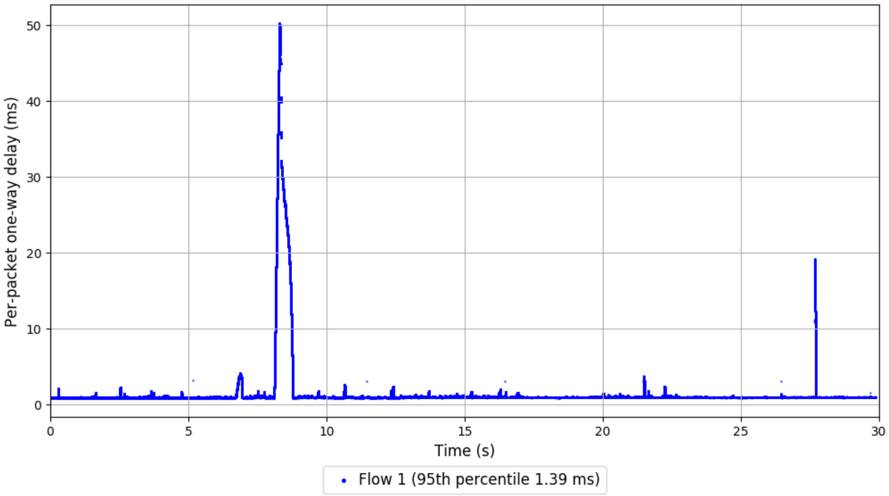




```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-12 11:27:54
End at: 2019-07-12 11:28:24
Local clock offset: 4.704 ms
Remote clock offset: -0.895 ms

# Below is generated by plot.py at 2019-07-12 13:46:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 730.88 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 730.88 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.10%
```

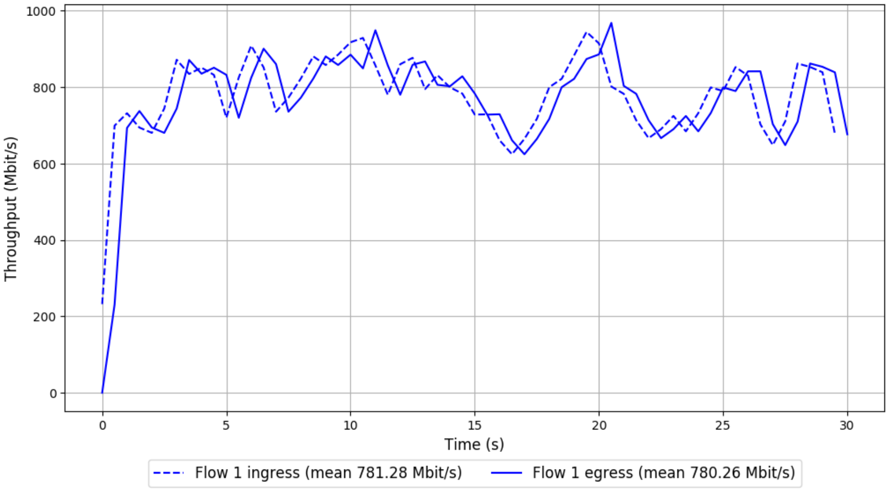
Run 3: Report of PCC-Allegro — Data Link

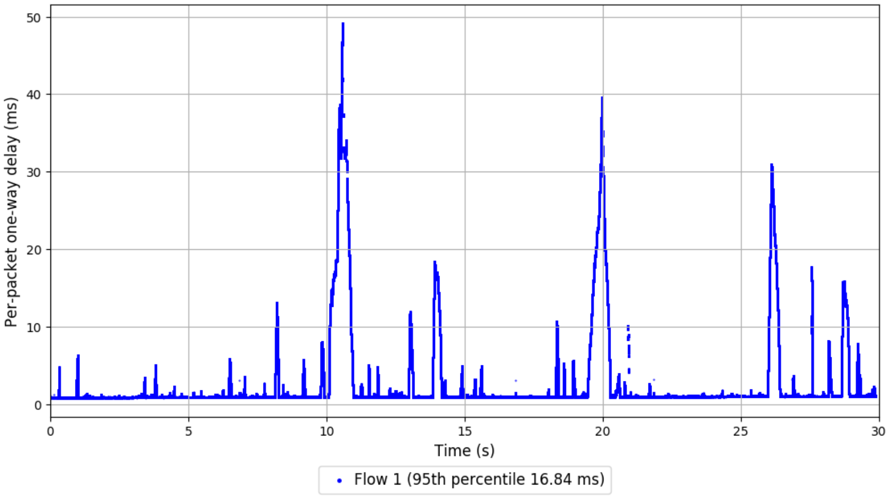




```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-12 12:01:21
End at: 2019-07-12 12:01:51
Local clock offset: 4.982 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2019-07-12 13:48:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 780.26 Mbit/s
95th percentile per-packet one-way delay: 16.838 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 780.26 Mbit/s
95th percentile per-packet one-way delay: 16.838 ms
Loss rate: 0.14%
```

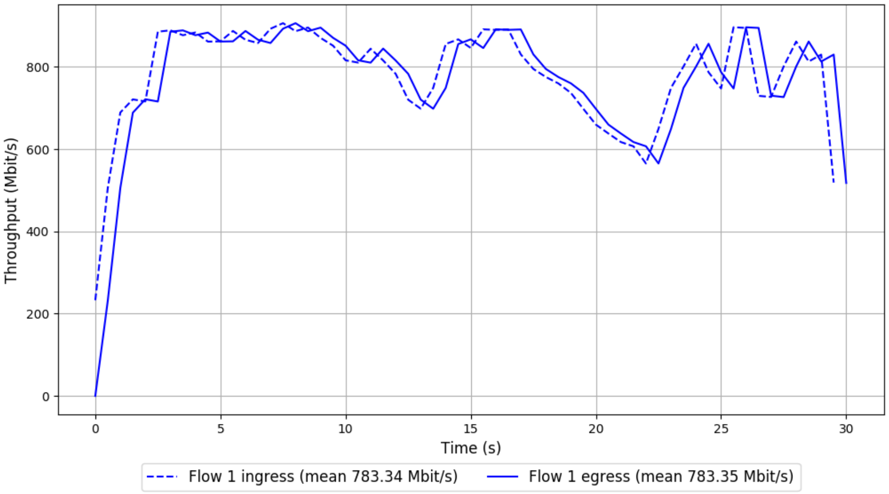
Run 4: Report of PCC-Allegro — Data Link

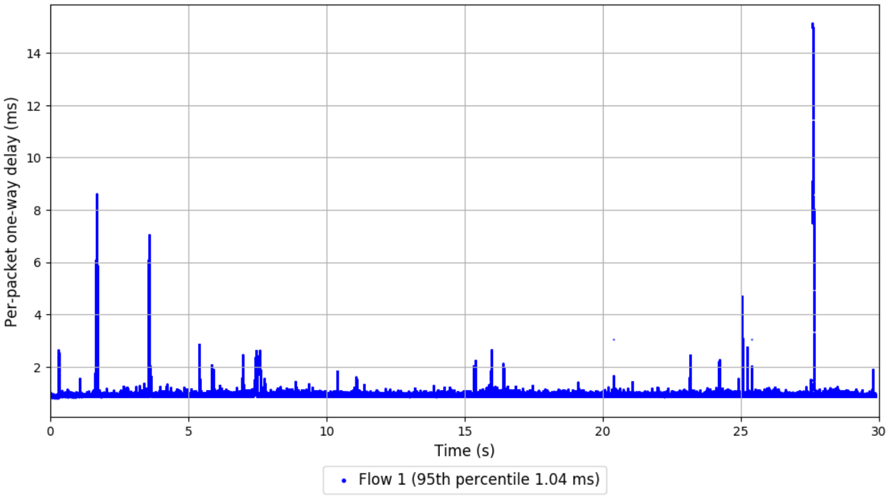




```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-12 12:34:54
End at: 2019-07-12 12:35:24
Local clock offset: 5.211 ms
Remote clock offset: 3.615 ms

# Below is generated by plot.py at 2019-07-12 13:49:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 783.35 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 783.35 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%
```

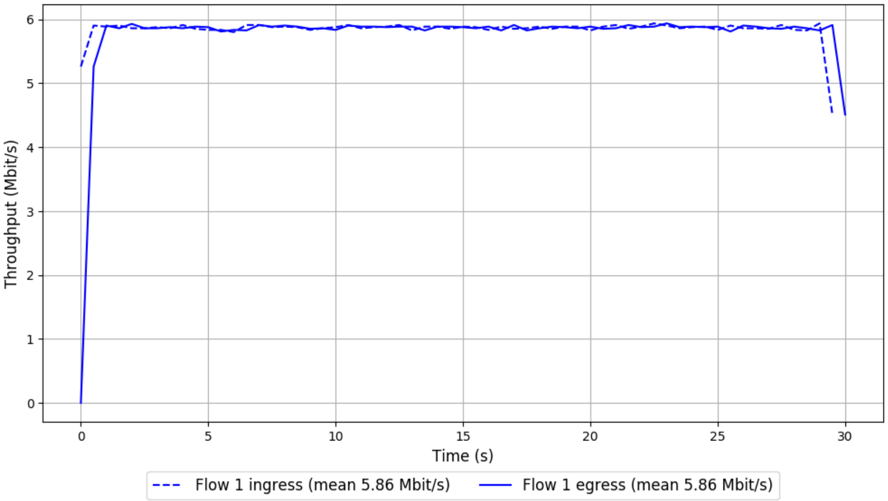
Run 5: Report of PCC-Allegro — Data Link

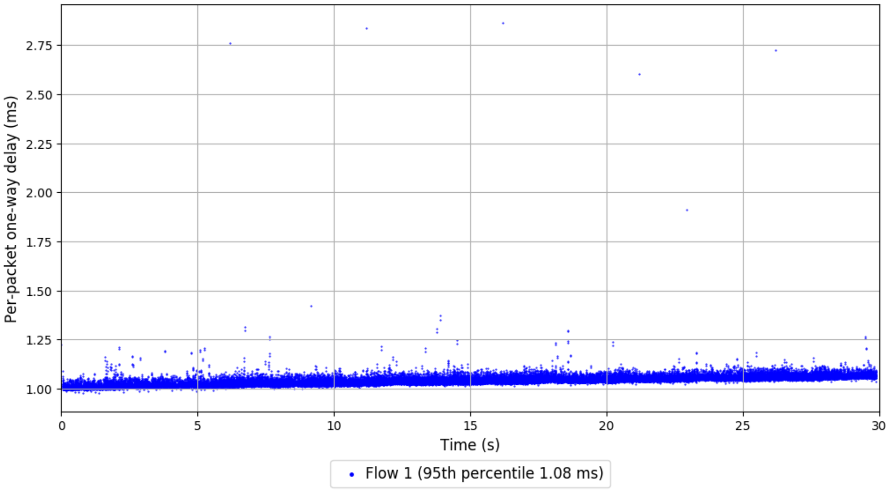




```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-12 10:31:58
End at: 2019-07-12 10:32:28
Local clock offset: 6.819 ms
Remote clock offset: 3.273 ms

# Below is generated by plot.py at 2019-07-12 13:49:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.01%
```

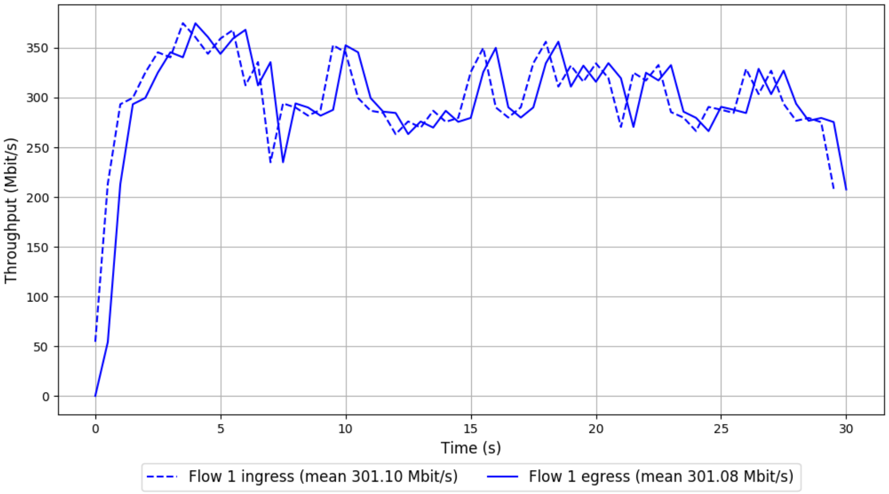
Run 1: Report of PCC-Expr — Data Link

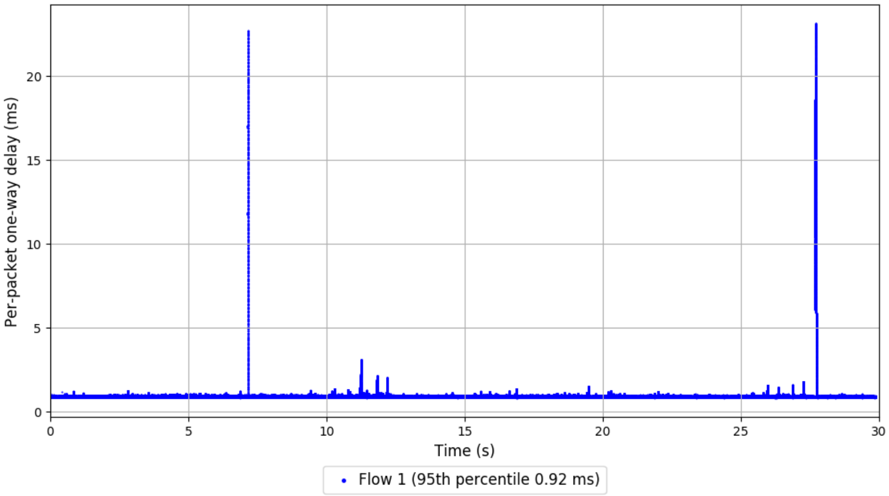




```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-12 11:05:11
End at: 2019-07-12 11:05:41
Local clock offset: 5.375 ms
Remote clock offset: 0.171 ms

# Below is generated by plot.py at 2019-07-12 13:49:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 301.08 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 301.08 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 0.01%
```

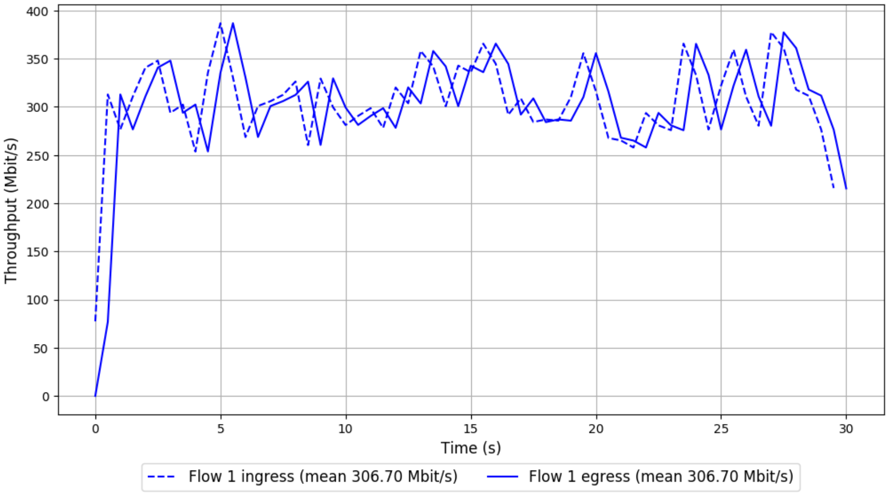
Run 2: Report of PCC-Expr — Data Link

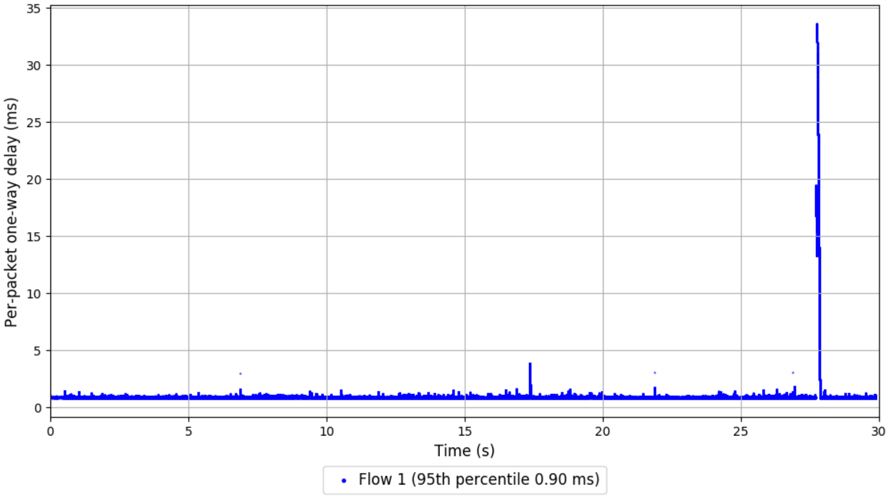




```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-12 11:38:43
End at: 2019-07-12 11:39:13
Local clock offset: 4.835 ms
Remote clock offset: -0.525 ms

# Below is generated by plot.py at 2019-07-12 13:49:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 306.70 Mbit/s
95th percentile per-packet one-way delay: 0.901 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 306.70 Mbit/s
95th percentile per-packet one-way delay: 0.901 ms
Loss rate: 0.00%
```

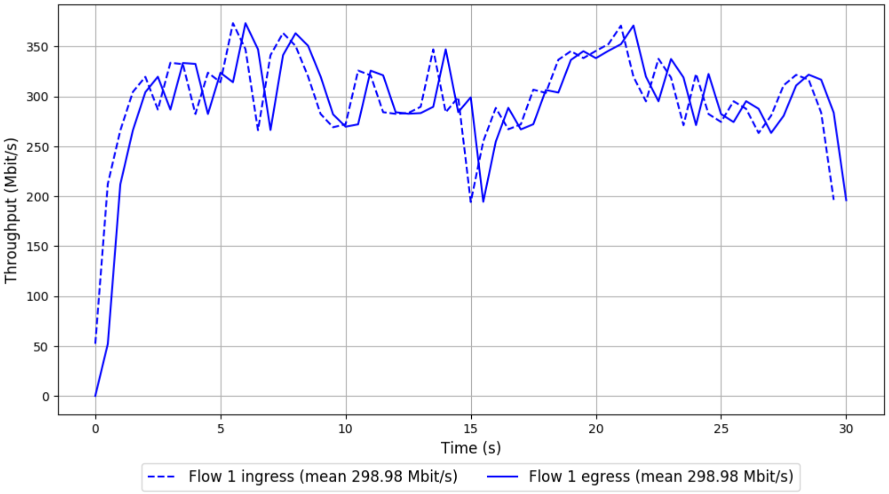
Run 3: Report of PCC-Expr — Data Link

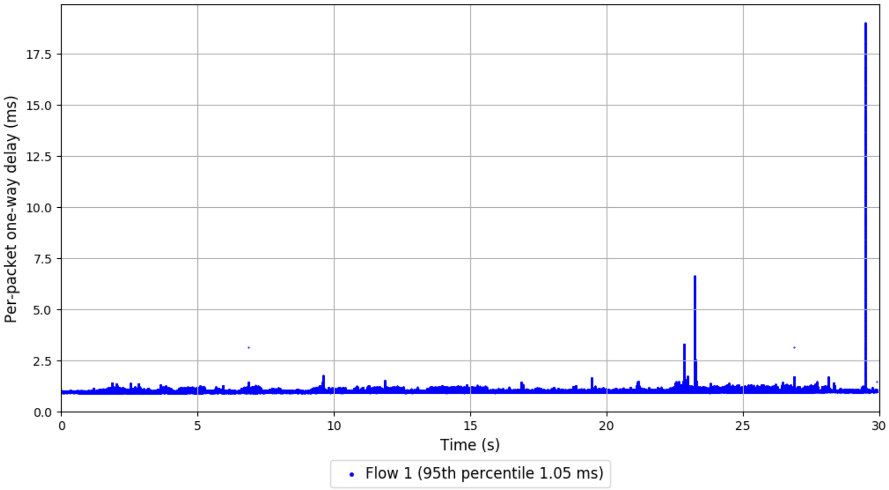




```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-12 12:12:14
End at: 2019-07-12 12:12:44
Local clock offset: 5.091 ms
Remote clock offset: 2.233 ms

# Below is generated by plot.py at 2019-07-12 13:49:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 298.98 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 298.98 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
```

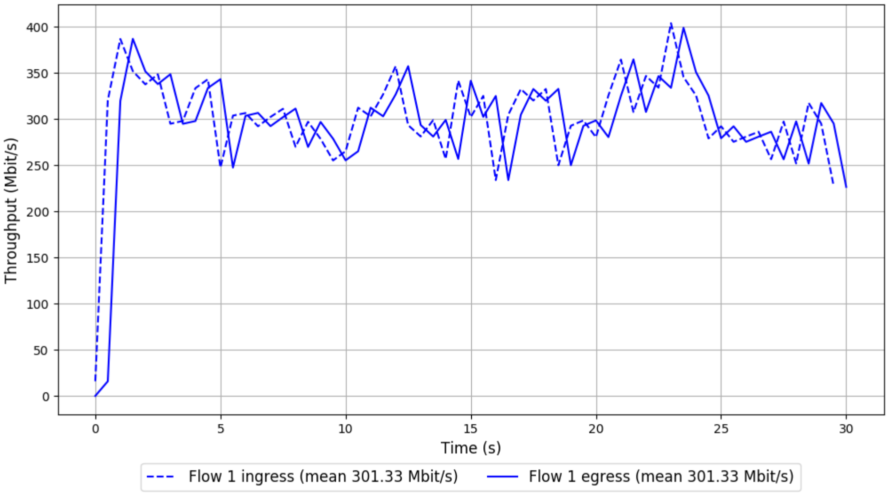
Run 4: Report of PCC-Expr — Data Link

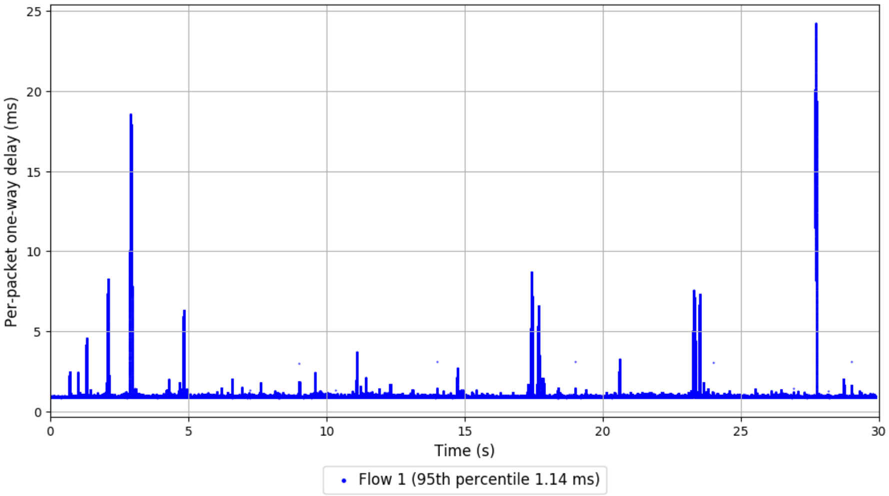




```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-12 12:45:50
End at: 2019-07-12 12:46:20
Local clock offset: 5.266 ms
Remote clock offset: 3.82 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 301.33 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 301.33 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.01%
```

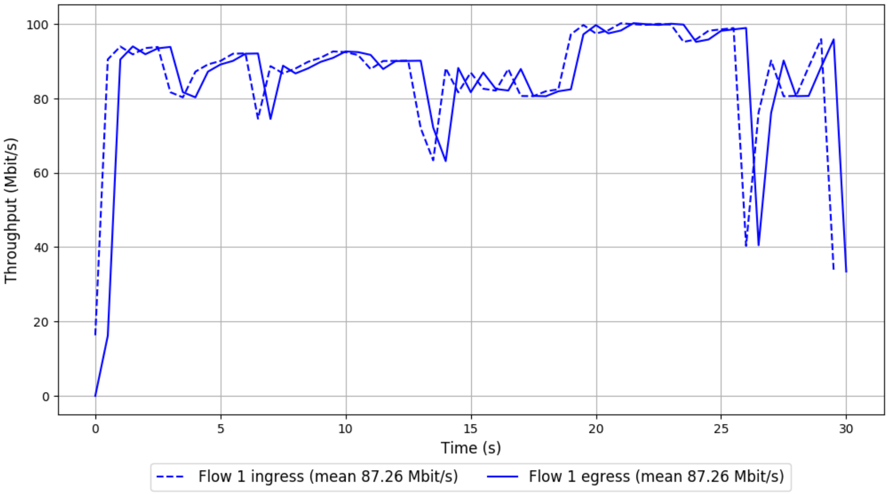
Run 5: Report of PCC-Expr — Data Link

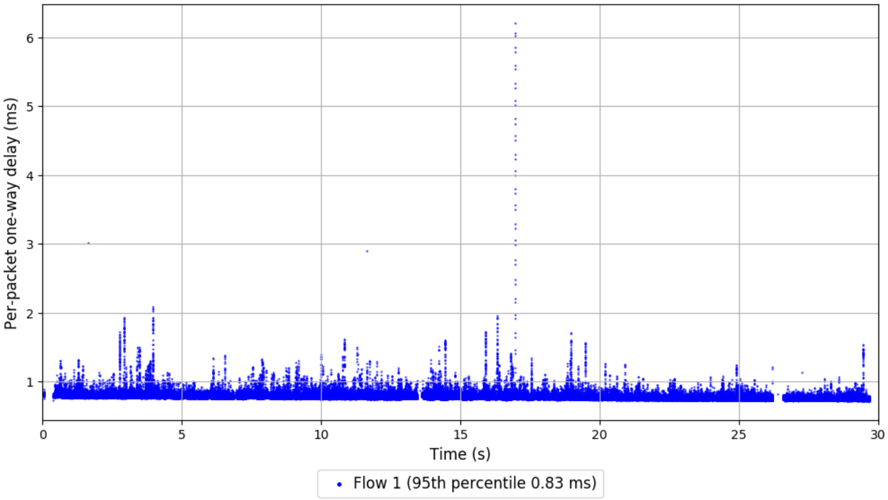




```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-12 10:25:20
End at: 2019-07-12 10:25:50
Local clock offset: 7.102 ms
Remote clock offset: 3.535 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 0.834 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 0.834 ms
Loss rate: 0.01%
```

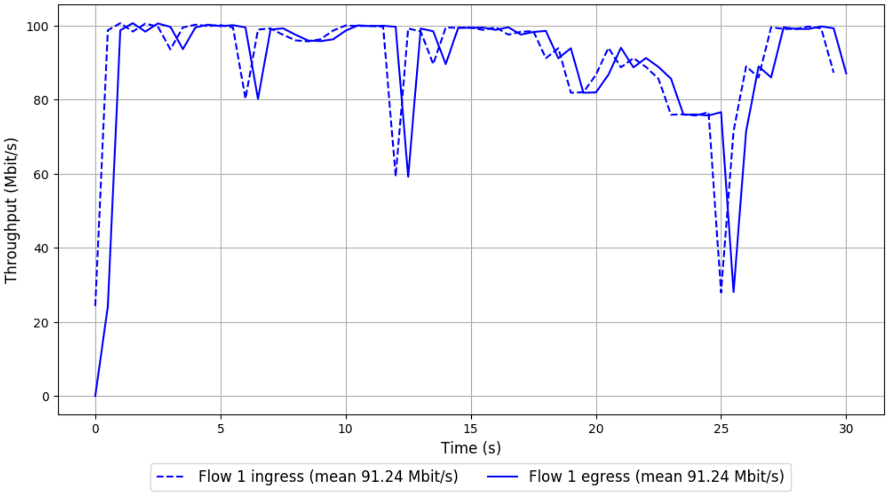
Run 1: Report of QUIC Cubic — Data Link

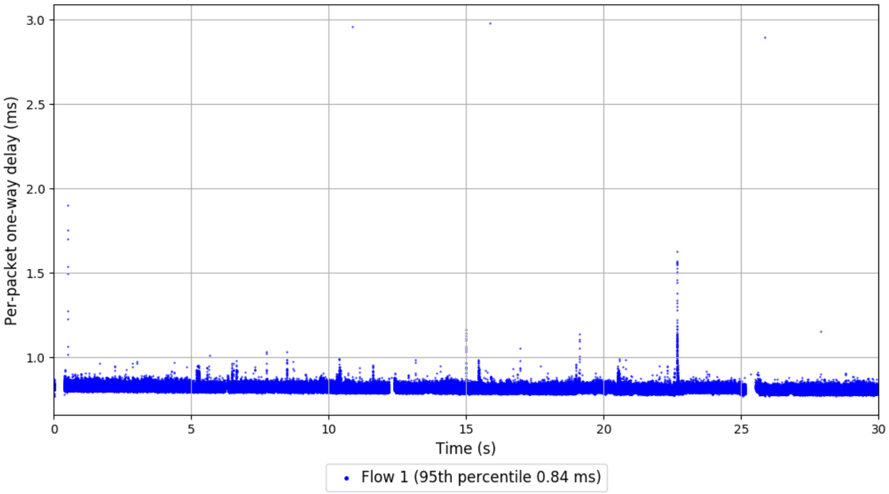




```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-12 10:58:34
End at: 2019-07-12 10:59:04
Local clock offset: 6.128 ms
Remote clock offset: 1.24 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 0.844 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 0.844 ms
Loss rate: 0.01%
```

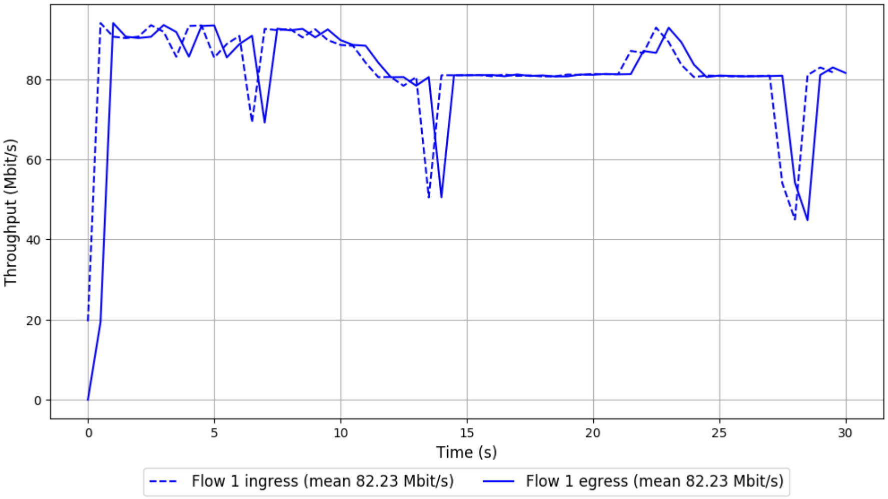
Run 2: Report of QUIC Cubic — Data Link

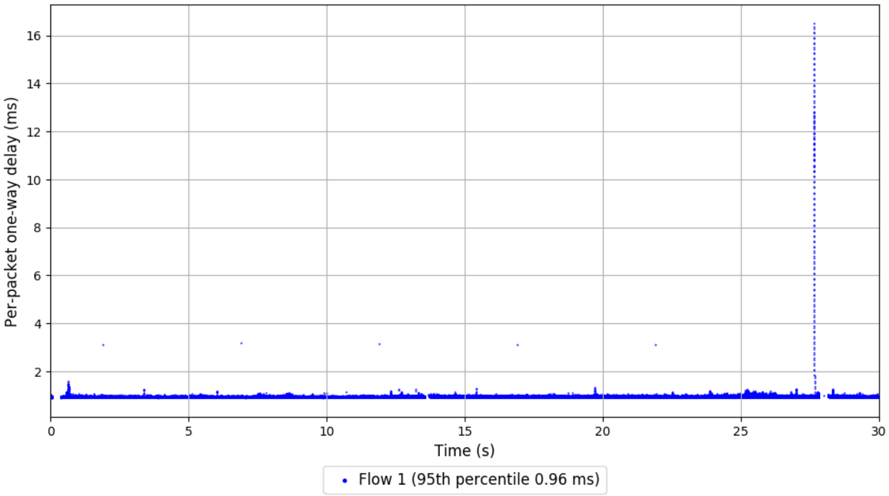




```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-12 11:32:06
End at: 2019-07-12 11:32:36
Local clock offset: 4.762 ms
Remote clock offset: -0.723 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.23 Mbit/s
95th percentile per-packet one-way delay: 0.957 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.23 Mbit/s
95th percentile per-packet one-way delay: 0.957 ms
Loss rate: 0.01%
```

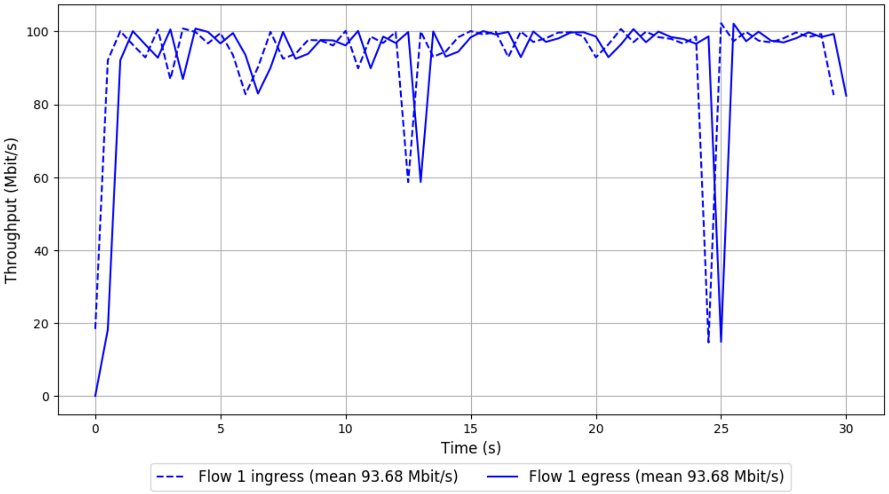
Run 3: Report of QUIC Cubic — Data Link

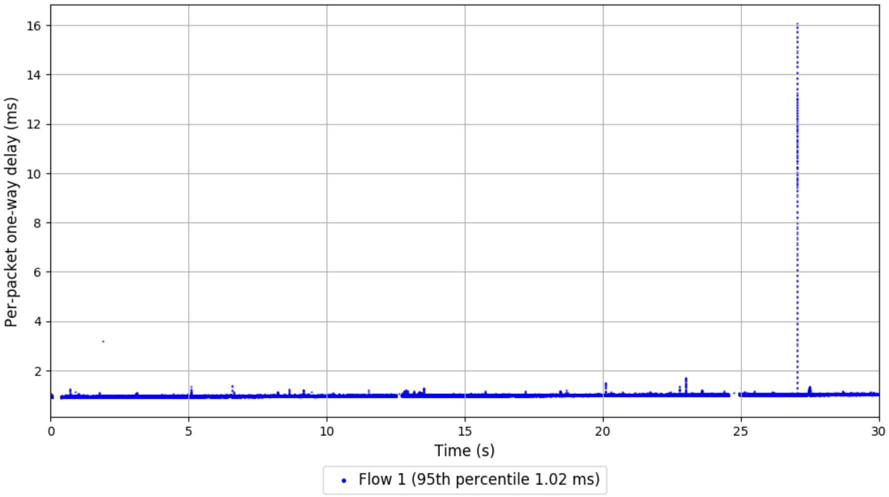




```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-12 12:05:35
End at: 2019-07-12 12:06:05
Local clock offset: 5.056 ms
Remote clock offset: 1.201 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.01%
```

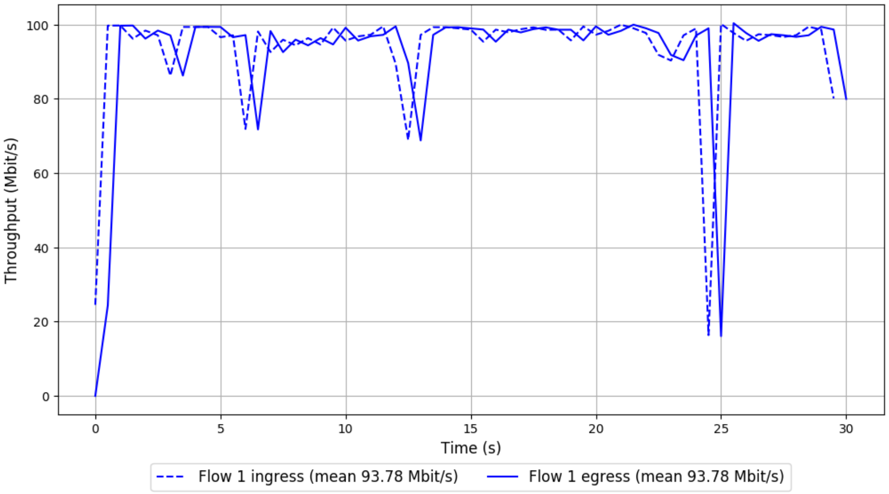
Run 4: Report of QUIC Cubic — Data Link

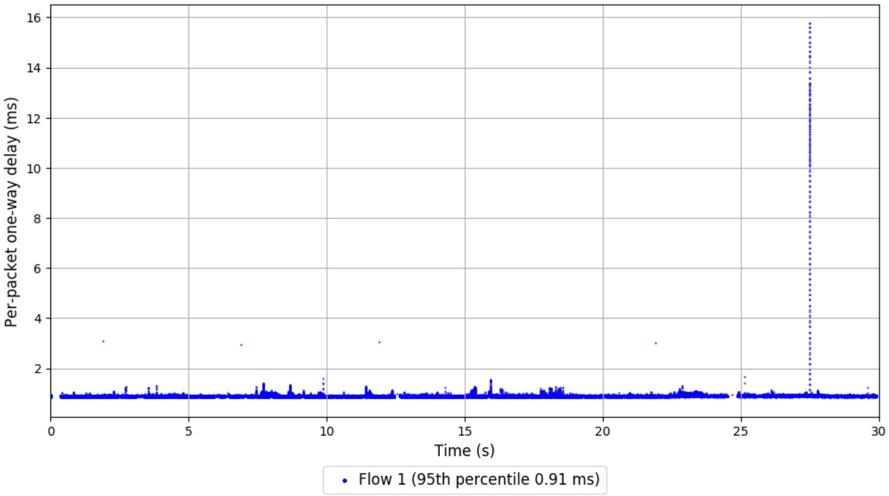




```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-12 12:39:08
End at: 2019-07-12 12:39:38
Local clock offset: 5.216 ms
Remote clock offset: 3.697 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 0.912 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 0.912 ms
Loss rate: 0.01%
```

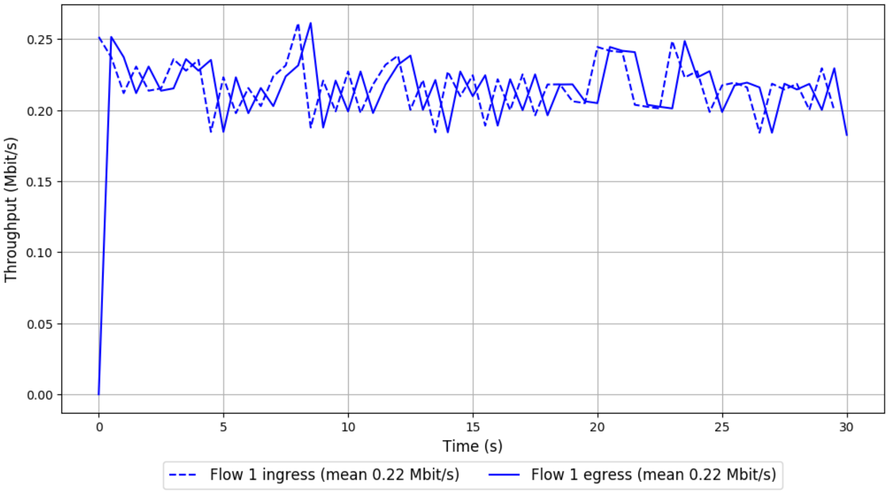
Run 5: Report of QUIC Cubic — Data Link

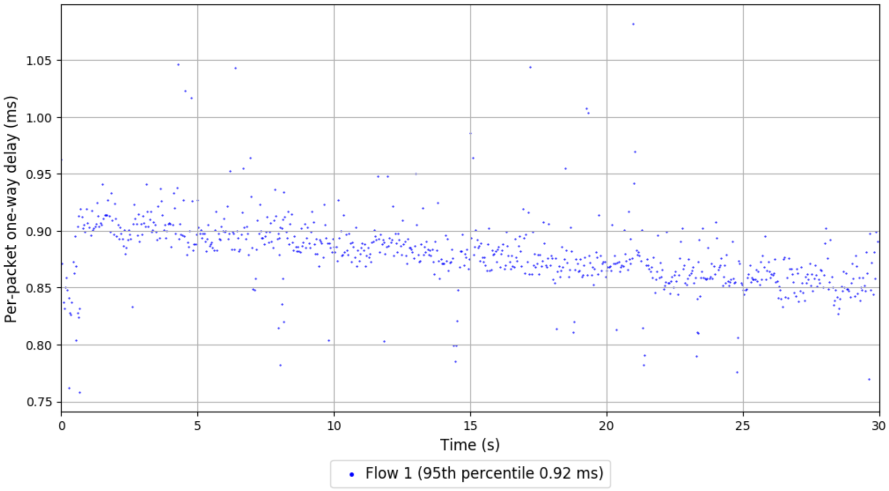




```
Run 1: Statistics of SCReAM

Start at: 2019-07-12 10:22:39
End at: 2019-07-12 10:23:09
Local clock offset: 7.005 ms
Remote clock offset: 3.697 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.923 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.923 ms
Loss rate: 0.13%
```

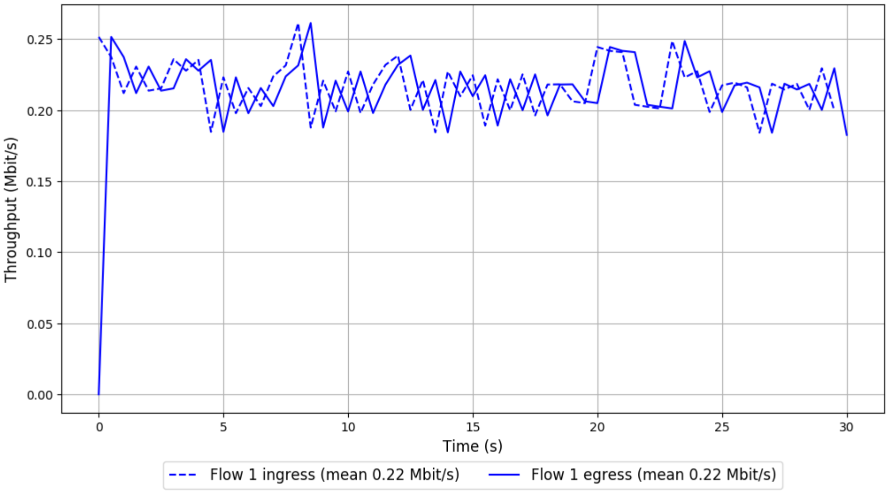
Run 1: Report of SCReAM — Data Link

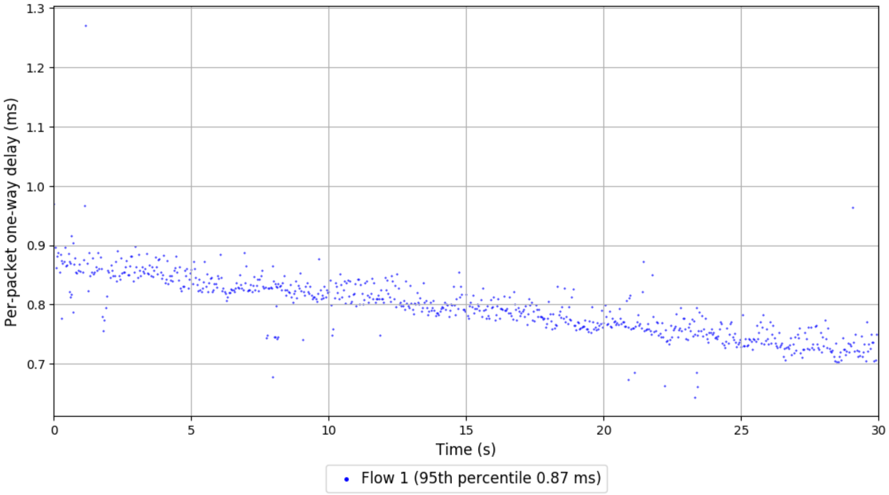




```
Run 2: Statistics of SCReAM

Start at: 2019-07-12 10:55:52
End at: 2019-07-12 10:56:22
Local clock offset: 6.108 ms
Remote clock offset: 1.981 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.873 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.873 ms
Loss rate: 0.13%
```

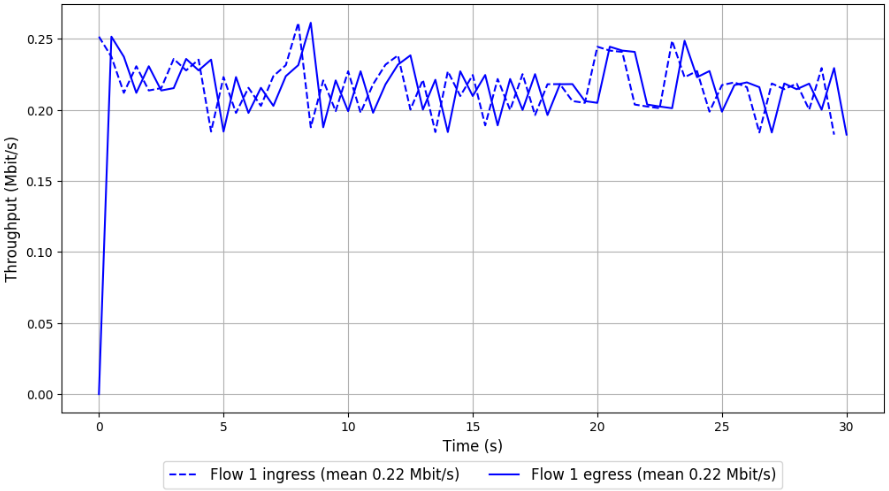
Run 2: Report of SCReAM — Data Link

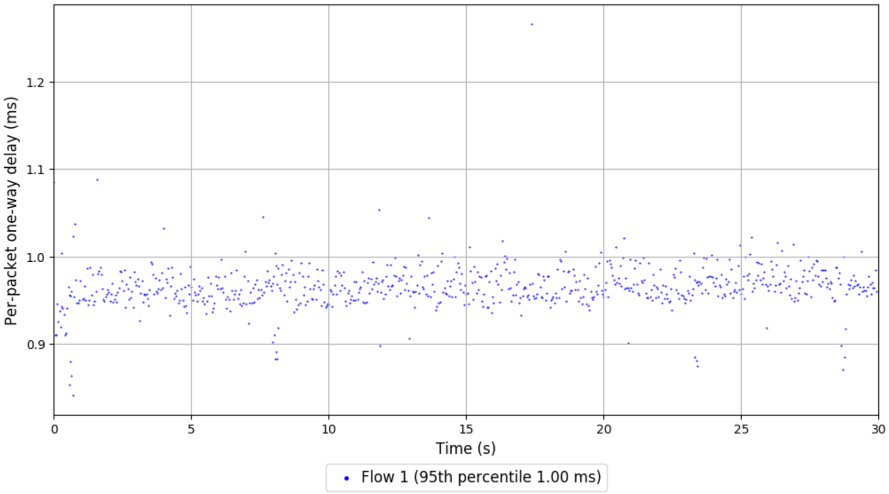




```
Run 3: Statistics of SCReAM

Start at: 2019-07-12 11:29:25
End at: 2019-07-12 11:29:55
Local clock offset: 4.719 ms
Remote clock offset: -0.779 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.00%
```

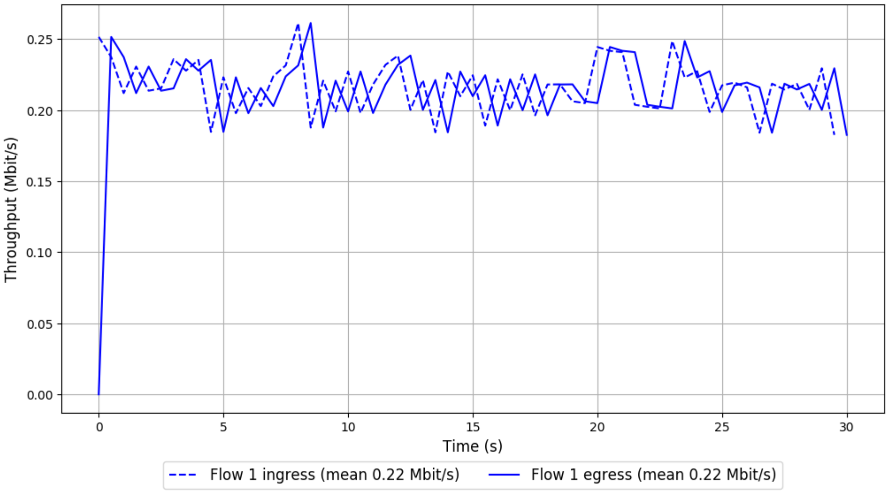
Run 3: Report of SCReAM — Data Link

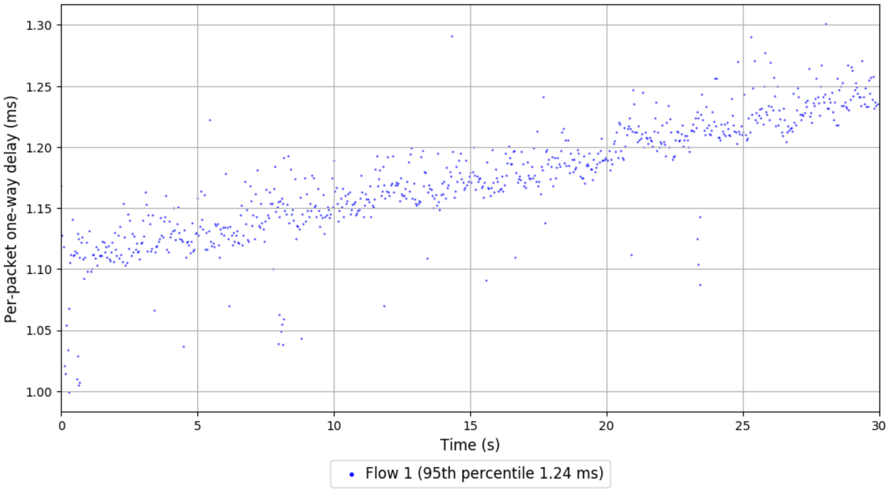




```
Run 4: Statistics of SCReAM

Start at: 2019-07-12 12:02:53
End at: 2019-07-12 12:03:23
Local clock offset: 5.012 ms
Remote clock offset: 0.412 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.00%
```

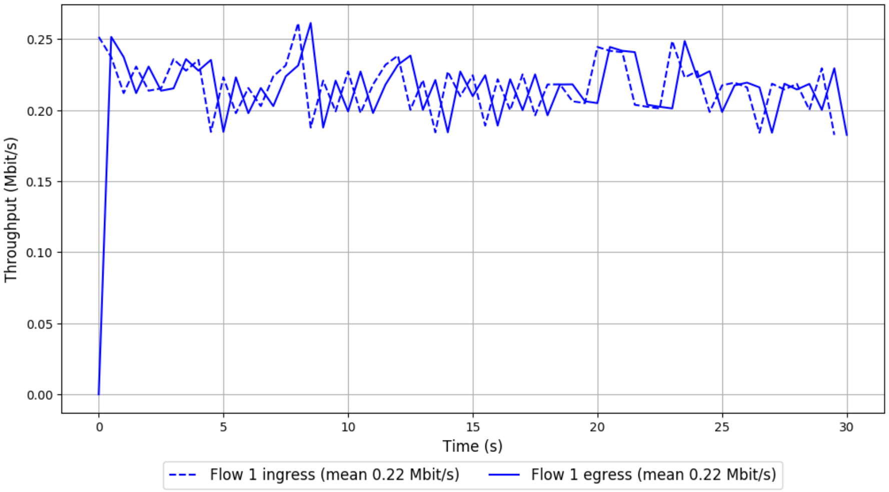
Run 4: Report of SCReAM — Data Link

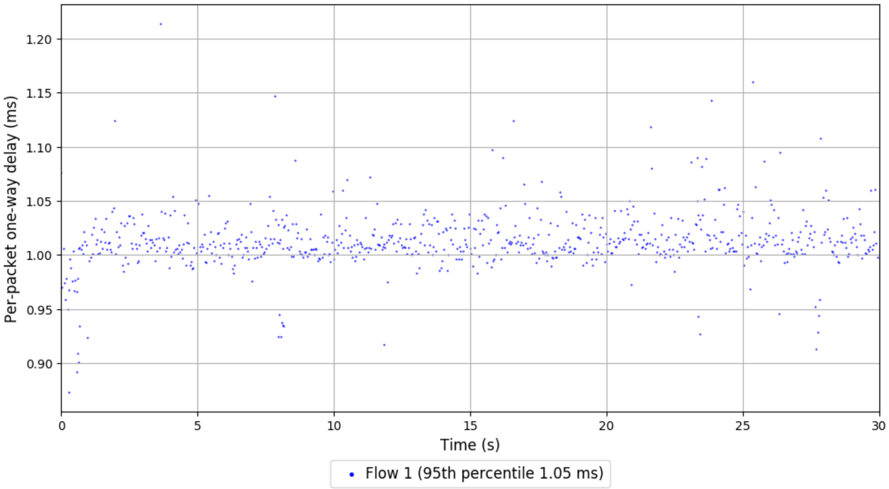




```
Run 5: Statistics of SCReAM

Start at: 2019-07-12 12:36:26
End at: 2019-07-12 12:36:56
Local clock offset: 5.183 ms
Remote clock offset: 3.593 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.052 ms
Loss rate: 0.00%
```

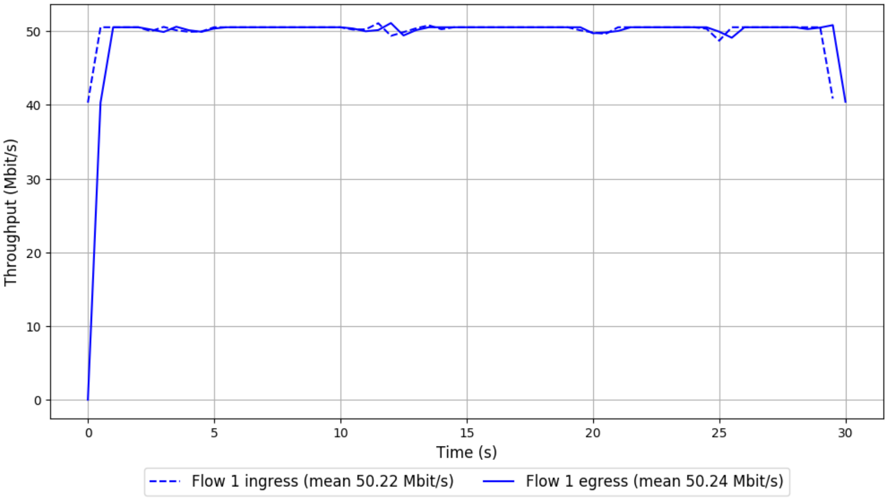
Run 5: Report of SCReAM — Data Link

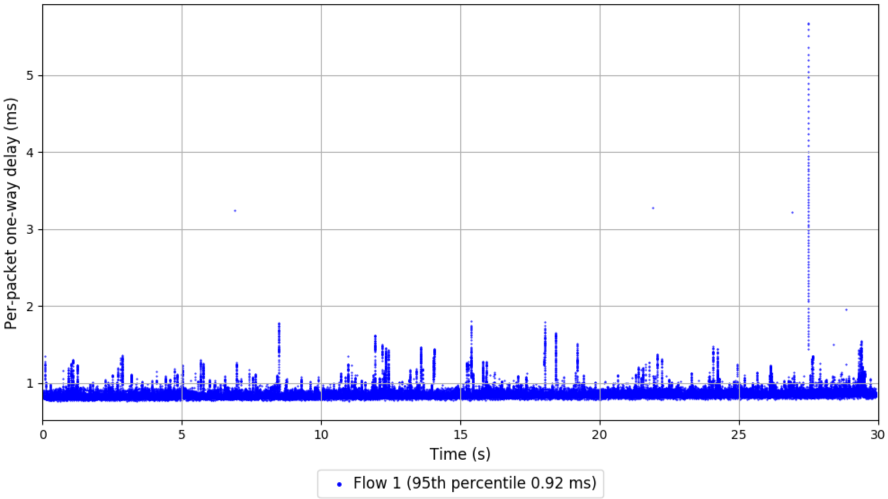




```
Run 1: Statistics of Sprout

Start at: 2019-07-12 10:09:59
End at: 2019-07-12 10:10:29
Local clock offset: 6.673 ms
Remote clock offset: 3.882 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 0.923 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.24 Mbit/s
95th percentile per-packet one-way delay: 0.923 ms
Loss rate: 0.01%
```

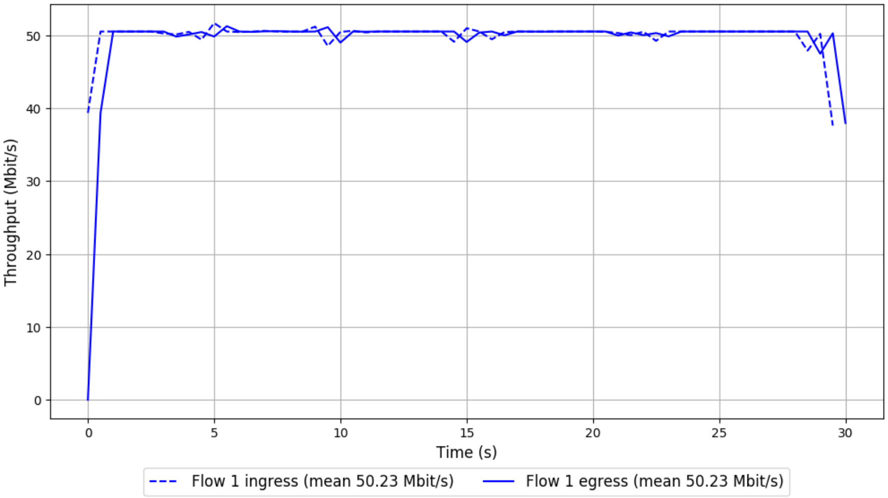
Run 1: Report of Sprout — Data Link

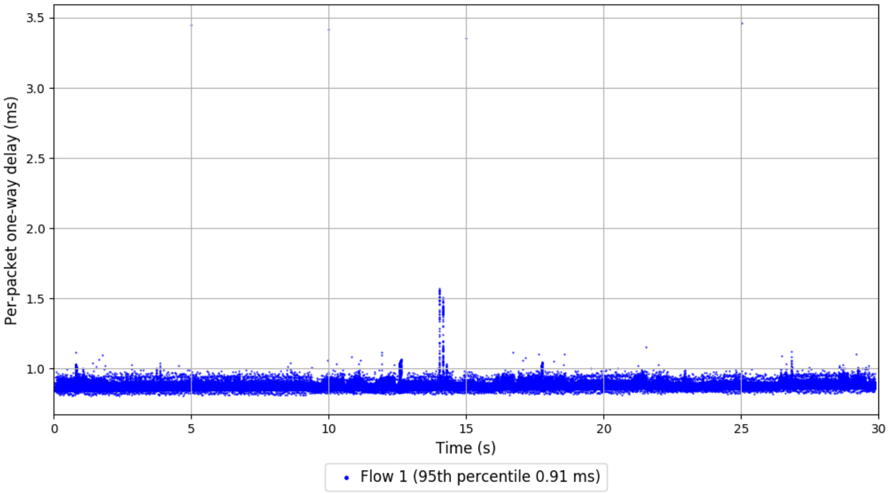




```
Run 2: Statistics of Sprout

Start at: 2019-07-12 10:43:11
End at: 2019-07-12 10:43:41
Local clock offset: 6.061 ms
Remote clock offset: 3.41 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 0.00%
```

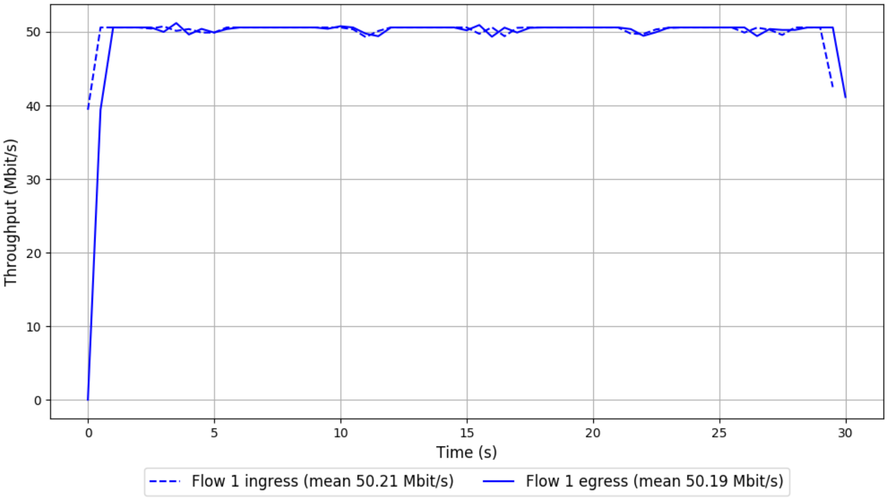
Run 2: Report of Sprout — Data Link

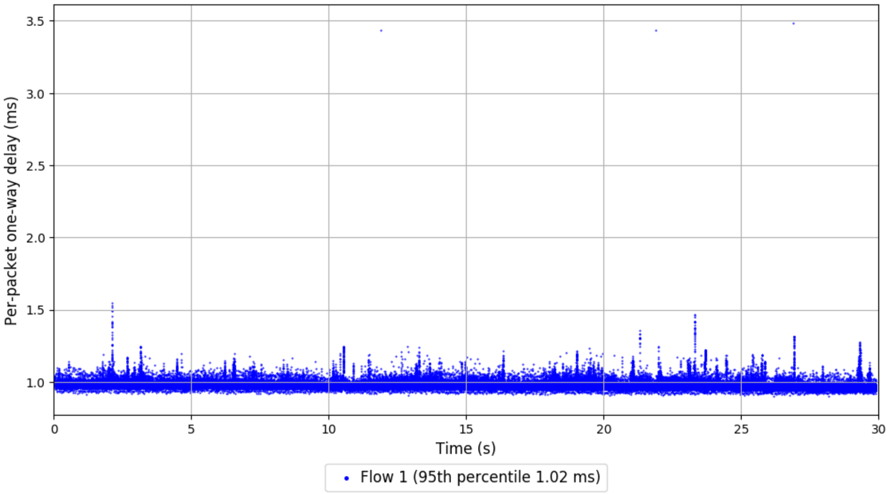




```
Run 3: Statistics of Sprout

Start at: 2019-07-12 11:16:43
End at: 2019-07-12 11:17:13
Local clock offset: 4.87 ms
Remote clock offset: -0.784 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.05%
```

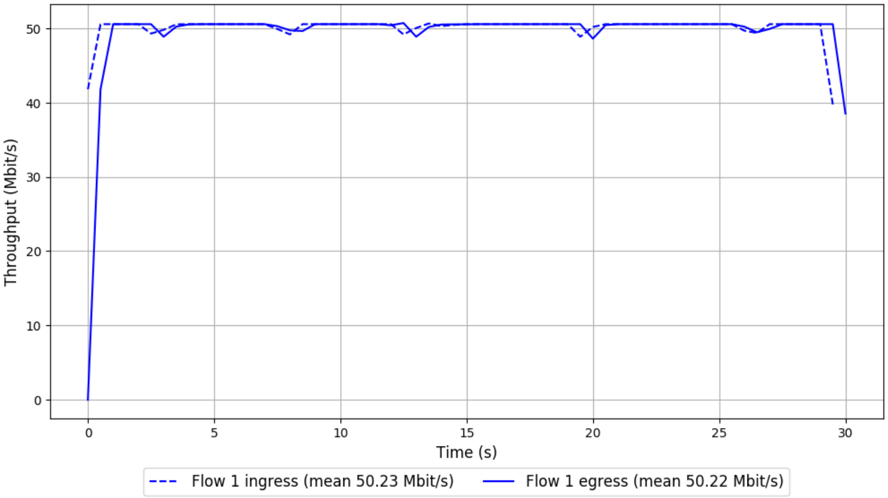
Run 3: Report of Sprout — Data Link

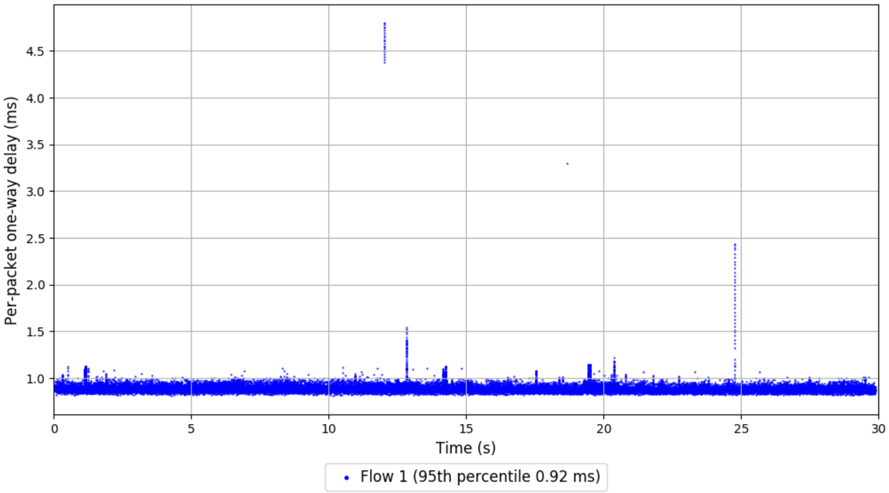




```
Run 4: Statistics of Sprout

Start at: 2019-07-12 11:50:09
End at: 2019-07-12 11:50:39
Local clock offset: 4.927 ms
Remote clock offset: -0.548 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.04%
```

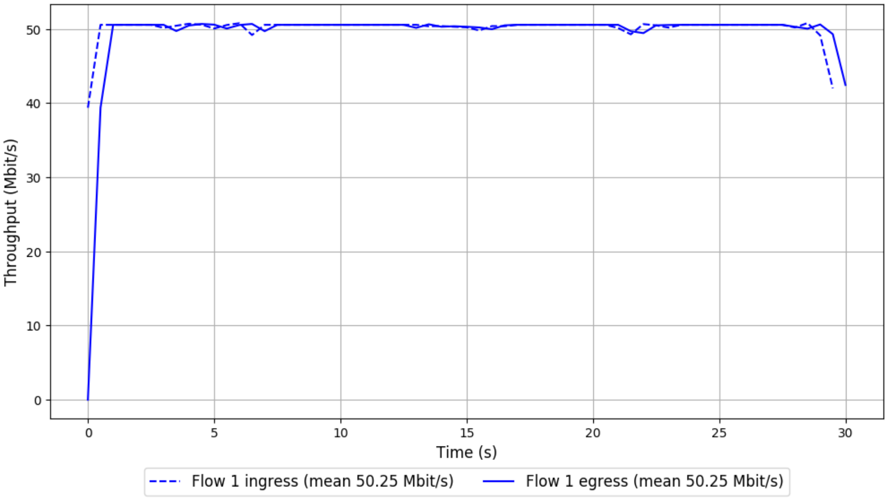
Run 4: Report of Sprout — Data Link

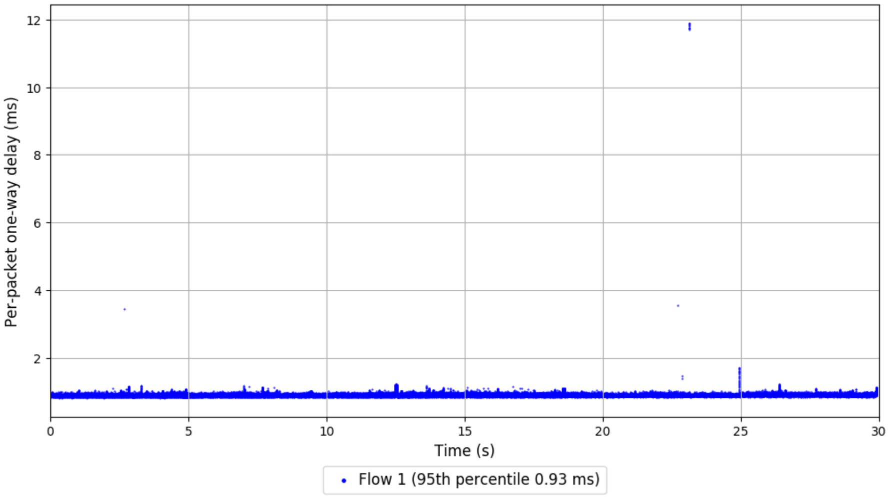




```
Run 5: Statistics of Sprout

Start at: 2019-07-12 12:23:41
End at: 2019-07-12 12:24:11
Local clock offset: 5.122 ms
Remote clock offset: 3.216 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 0.931 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 0.931 ms
Loss rate: 0.00%
```

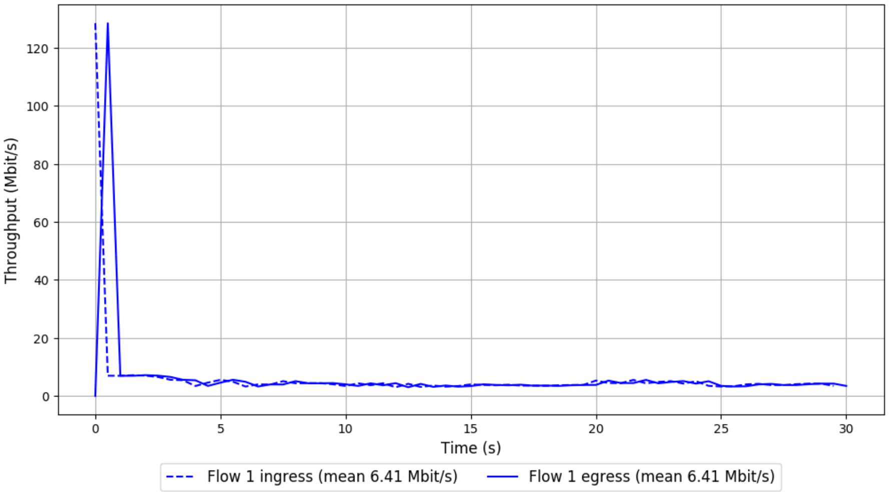
Run 5: Report of Sprout — Data Link

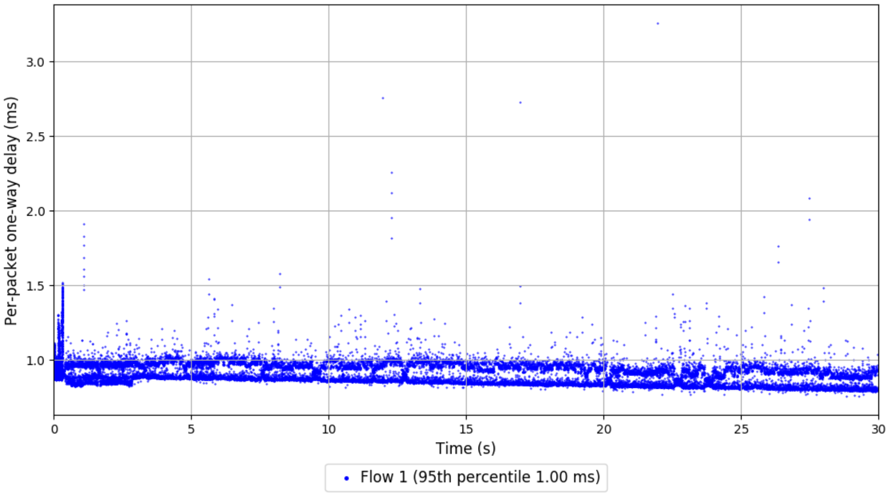




```
Run 1: Statistics of TaoVA-100x

Start at: 2019-07-12 10:17:03
End at: 2019-07-12 10:17:33
Local clock offset: 6.797 ms
Remote clock offset: 4.271 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 1.003 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 1.003 ms
Loss rate: 0.01%
```

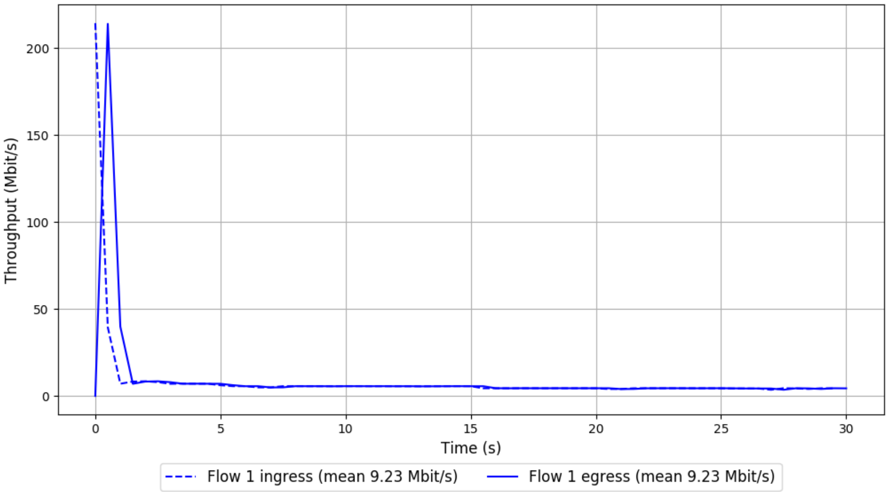
Run 1: Report of TaoVA-100x — Data Link

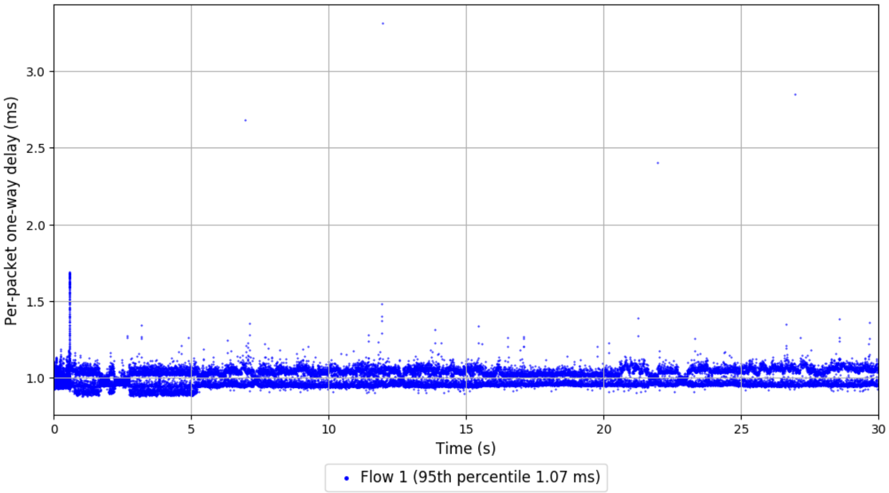




```
Run 2: Statistics of TaoVA-100x

Start at: 2019-07-12 10:50:16
End at: 2019-07-12 10:50:46
Local clock offset: 6.038 ms
Remote clock offset: 3.455 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
```

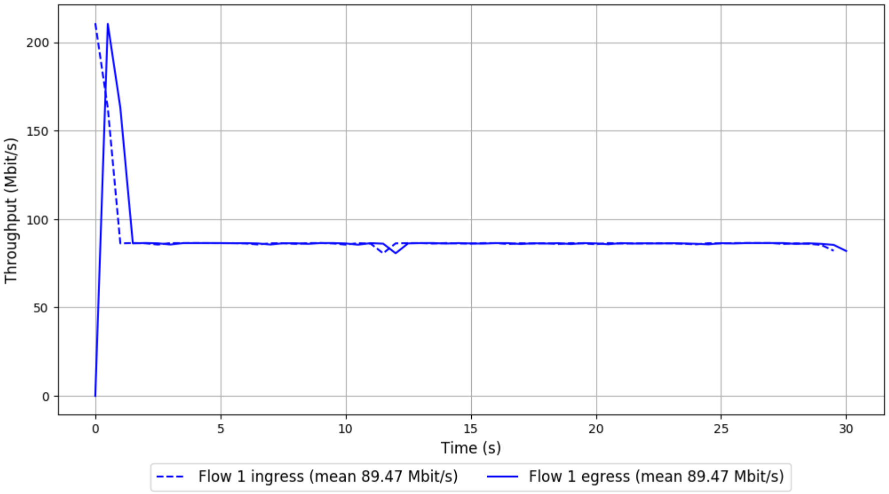
Run 2: Report of TaoVA-100x — Data Link

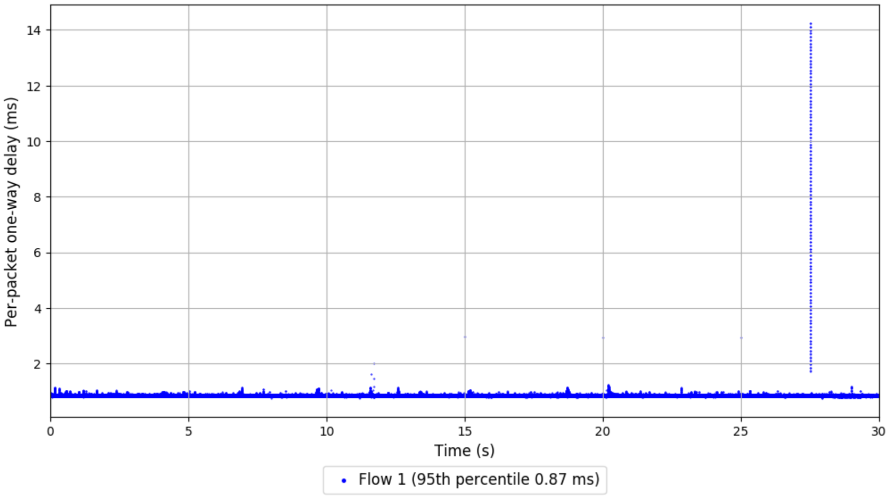




```
Run 3: Statistics of TaoVA-100x

Start at: 2019-07-12 11:23:44
End at: 2019-07-12 11:24:14
Local clock offset: 4.755 ms
Remote clock offset: -0.991 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 0.868 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 0.868 ms
Loss rate: 0.01%
```

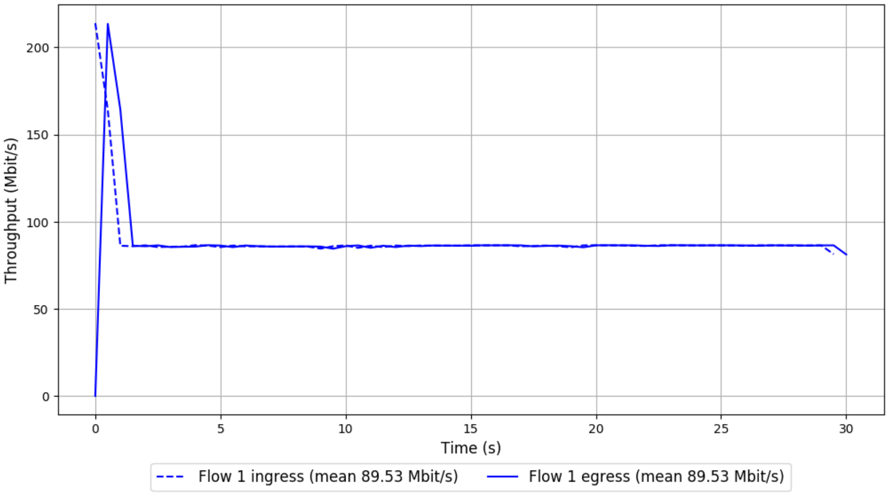
Run 3: Report of TaoVA-100x — Data Link

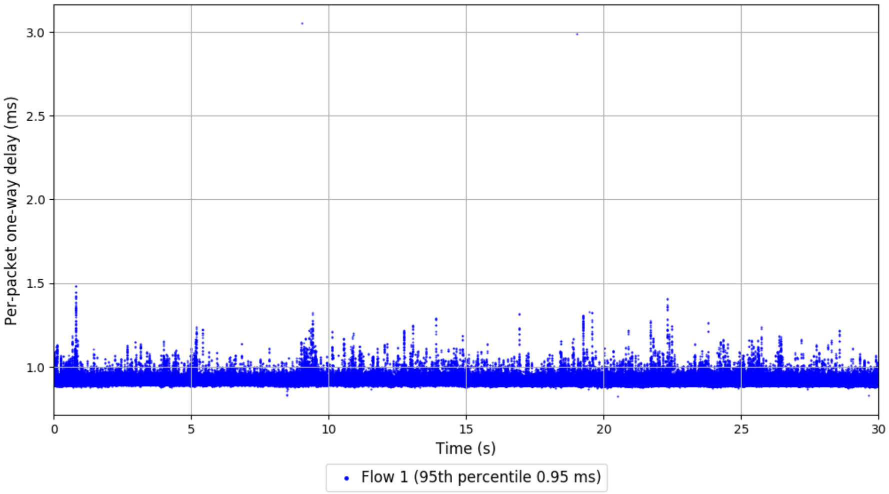




```
Run 4: Statistics of TaoVA-100x

Start at: 2019-07-12 11:57:11
End at: 2019-07-12 11:57:41
Local clock offset: 4.951 ms
Remote clock offset: -0.664 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.53 Mbit/s
95th percentile per-packet one-way delay: 0.950 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 89.53 Mbit/s
95th percentile per-packet one-way delay: 0.950 ms
Loss rate: 0.01%
```

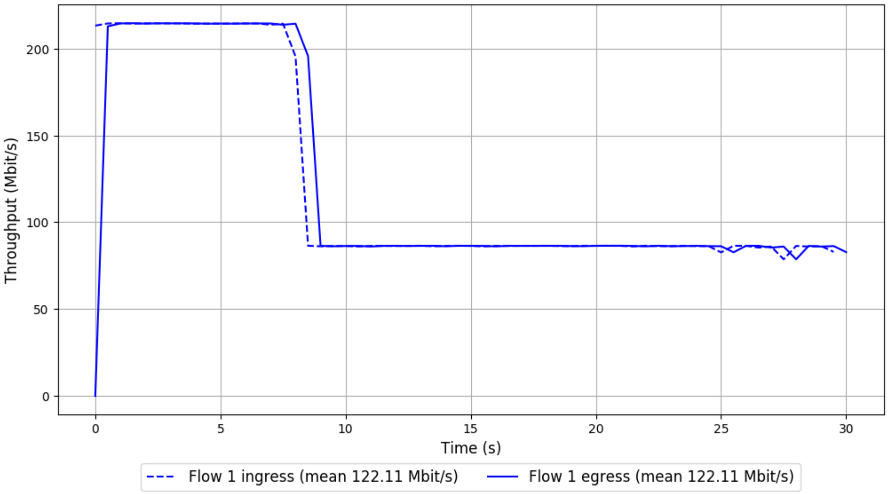
Run 4: Report of TaoVA-100x — Data Link

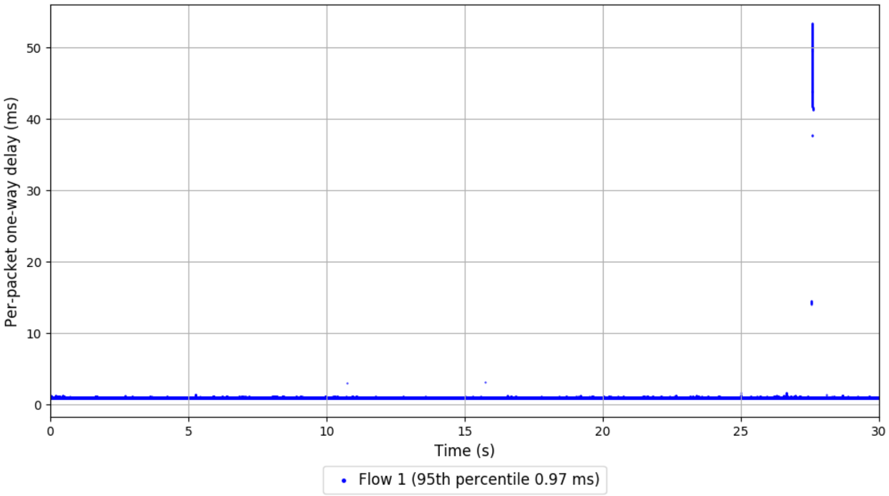




```
Run 5: Statistics of TaoVA-100x

Start at: 2019-07-12 12:30:41
End at: 2019-07-12 12:31:11
Local clock offset: 5.123 ms
Remote clock offset: 3.399 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.11 Mbit/s
95th percentile per-packet one-way delay: 0.967 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 122.11 Mbit/s
95th percentile per-packet one-way delay: 0.967 ms
Loss rate: 0.00%
```

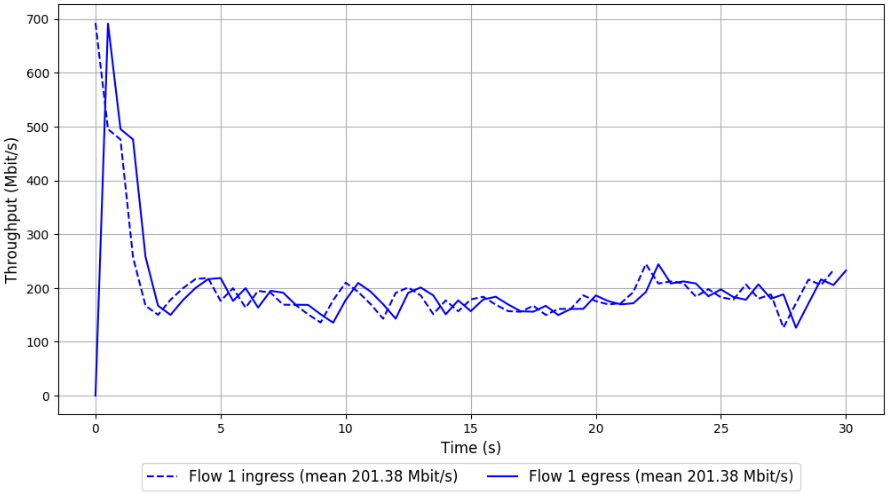
Run 5: Report of TaoVA-100x — Data Link

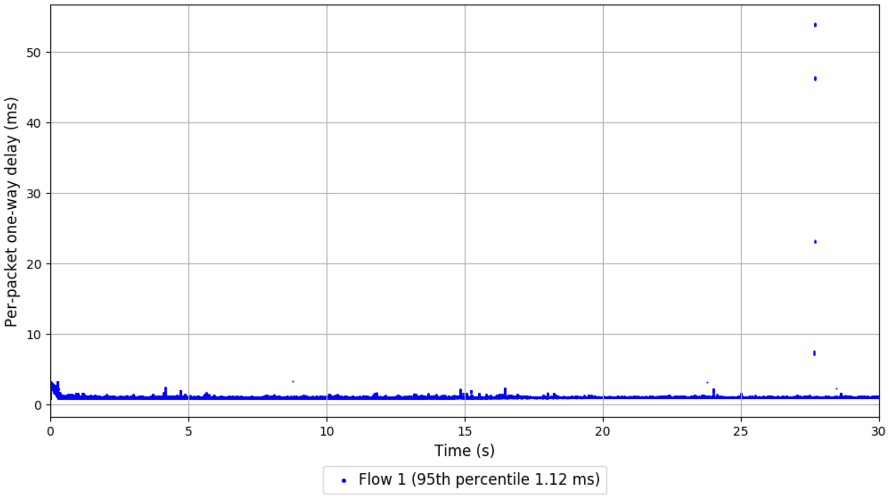




```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-12 10:03:13
End at: 2019-07-12 10:03:43
Local clock offset: 6.888 ms
Remote clock offset: 3.345 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.38 Mbit/s
95th percentile per-packet one-way delay: 1.125 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 201.38 Mbit/s
95th percentile per-packet one-way delay: 1.125 ms
Loss rate: 0.01%
```

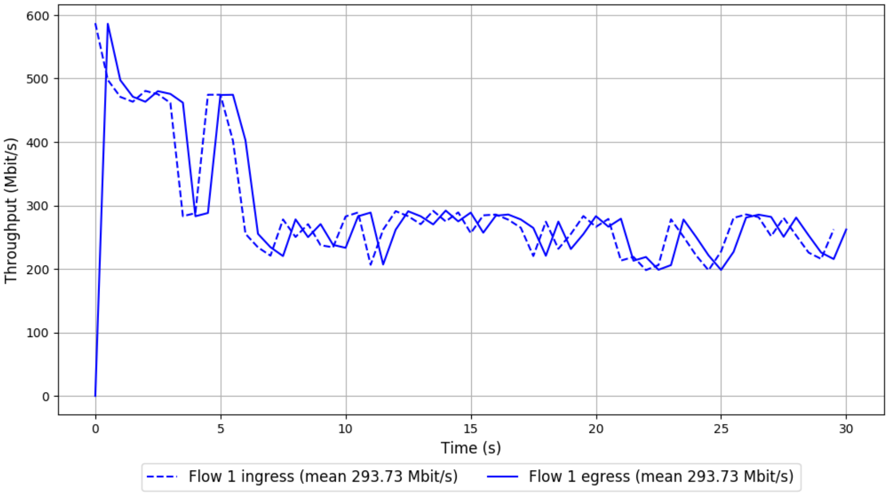
Run 1: Report of TCP Vegas — Data Link

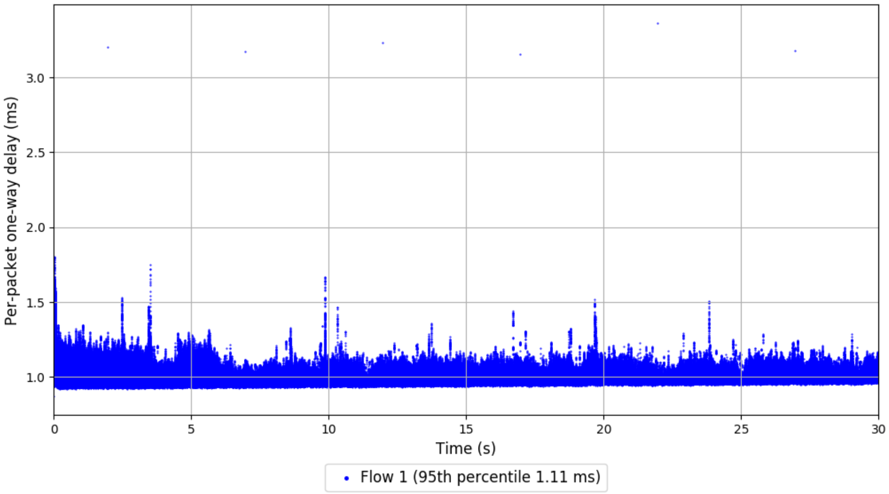




```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-12 10:36:19
End at: 2019-07-12 10:36:49
Local clock offset: 6.368 ms
Remote clock offset: 3.28 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 293.73 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 293.73 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.00%
```

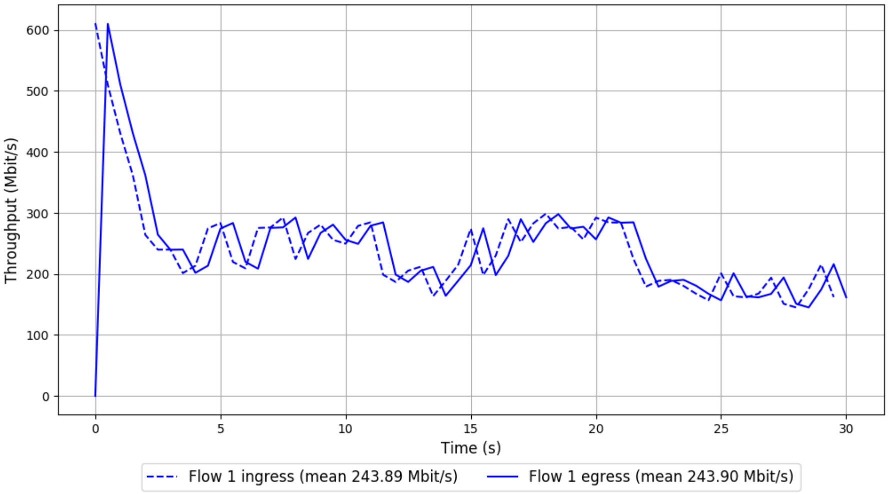
Run 2: Report of TCP Vegas — Data Link

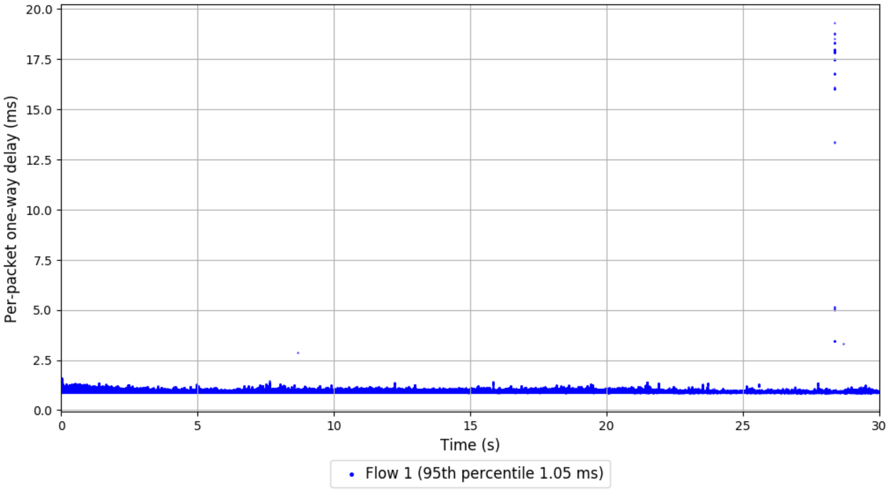




```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-12 11:09:55
End at: 2019-07-12 11:10:25
Local clock offset: 5.065 ms
Remote clock offset: -0.332 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.90 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 243.90 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.00%
```

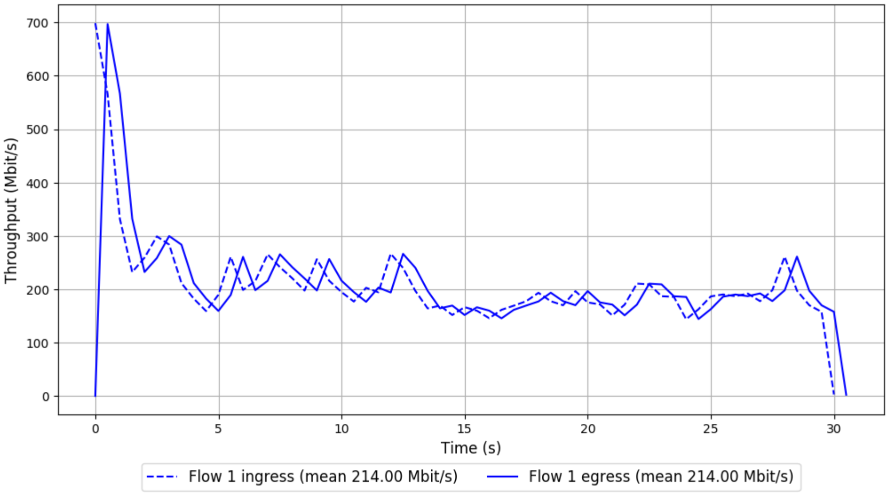
Run 3: Report of TCP Vegas — Data Link

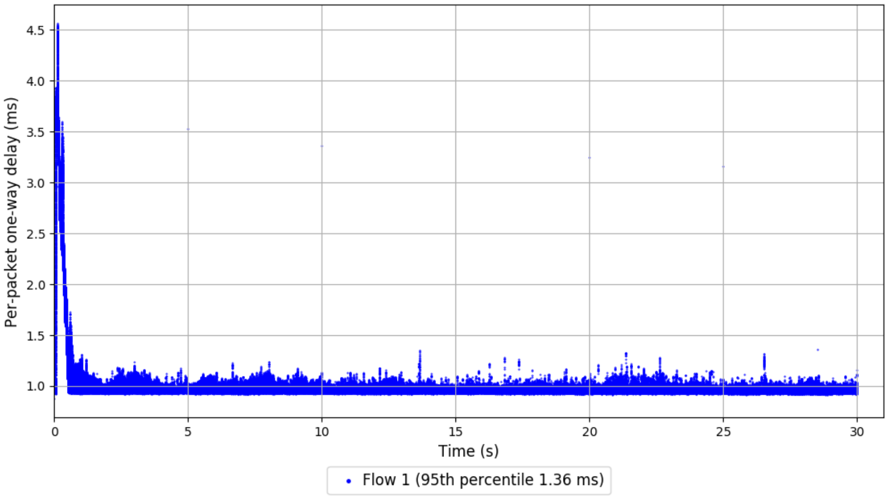




```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-12 11:43:24
End at: 2019-07-12 11:43:54
Local clock offset: 4.896 ms
Remote clock offset: -0.604 ms

# Below is generated by plot.py at 2019-07-12 13:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.00 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 214.00 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.01%
```

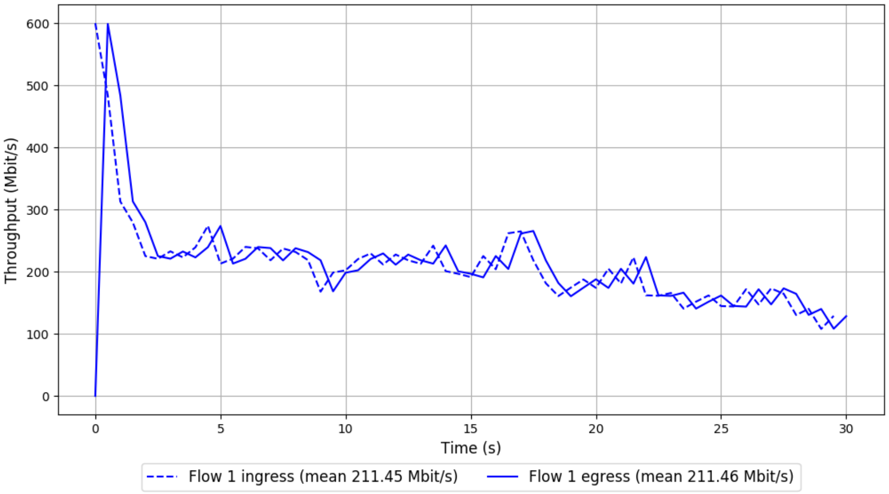
Run 4: Report of TCP Vegas — Data Link

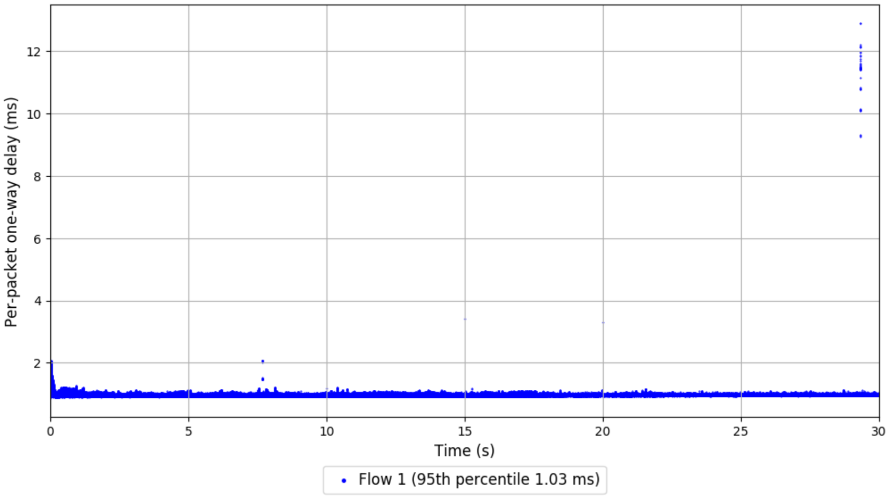




```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-12 12:16:53
End at: 2019-07-12 12:17:23
Local clock offset: 5.102 ms
Remote clock offset: 2.704 ms

# Below is generated by plot.py at 2019-07-12 13:52:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.46 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.46 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.00%
```

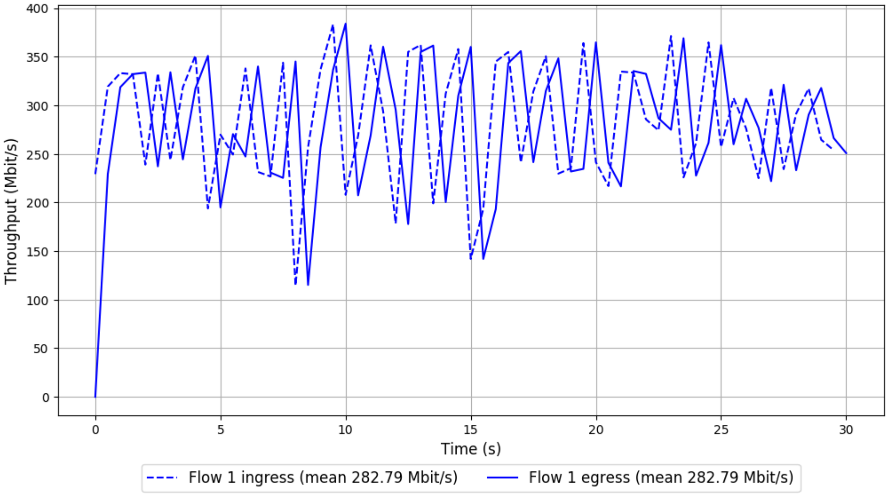
Run 5: Report of TCP Vegas — Data Link

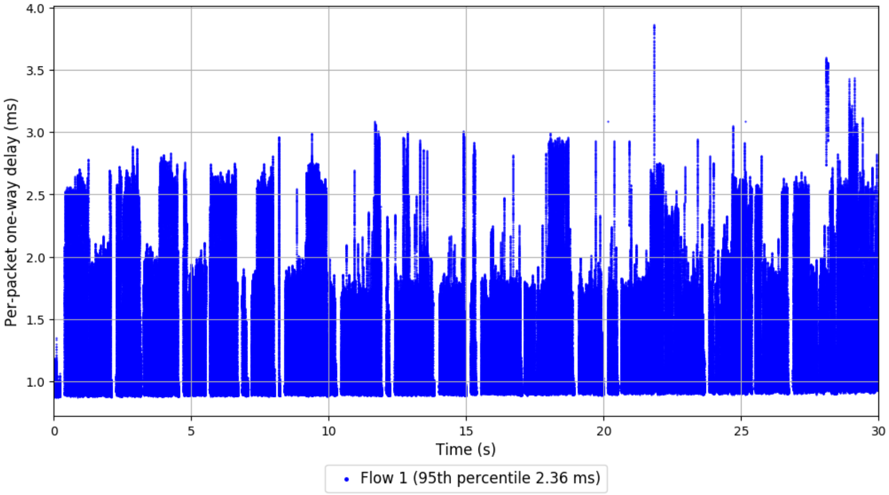




```
Run 1: Statistics of Verus

Start at: 2019-07-12 10:12:38
End at: 2019-07-12 10:13:08
Local clock offset: 6.699 ms
Remote clock offset: 3.972 ms

# Below is generated by plot.py at 2019-07-12 13:53:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.79 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 282.79 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.02%
```

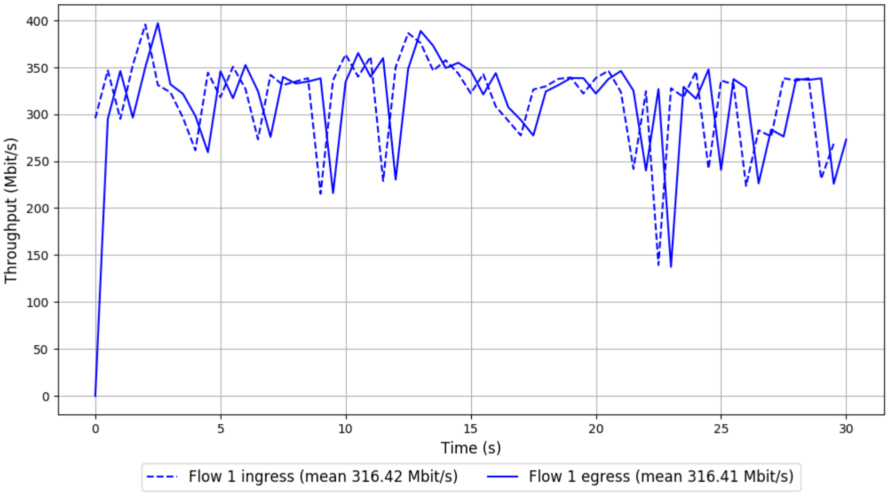
Run 1: Report of Verus — Data Link

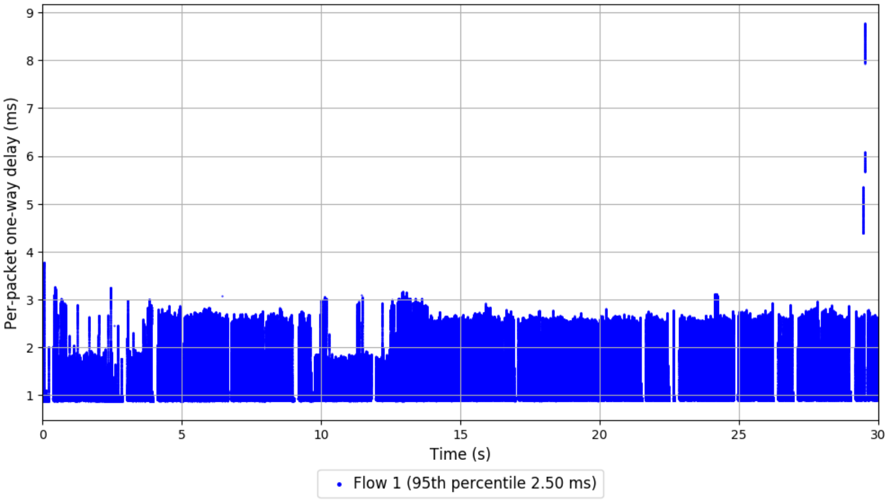




```
Run 2: Statistics of Verus

Start at: 2019-07-12 10:45:50
End at: 2019-07-12 10:46:20
Local clock offset: 6.031 ms
Remote clock offset: 3.399 ms

# Below is generated by plot.py at 2019-07-12 13:54:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.41 Mbit/s
95th percentile per-packet one-way delay: 2.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 316.41 Mbit/s
95th percentile per-packet one-way delay: 2.502 ms
Loss rate: 0.00%
```

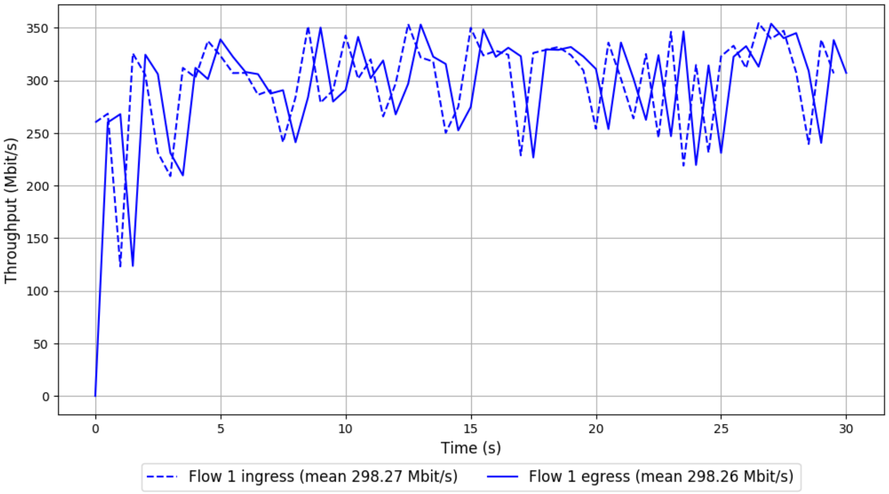
Run 2: Report of Verus — Data Link

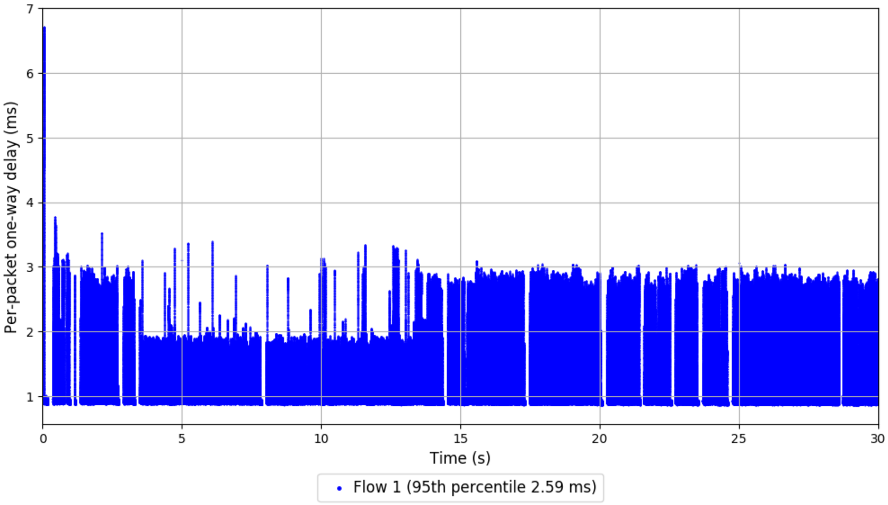




```
Run 3: Statistics of Verus

Start at: 2019-07-12 11:19:20
End at: 2019-07-12 11:19:50
Local clock offset: 4.802 ms
Remote clock offset: -0.885 ms

# Below is generated by plot.py at 2019-07-12 13:55:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 298.26 Mbit/s
95th percentile per-packet one-way delay: 2.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 298.26 Mbit/s
95th percentile per-packet one-way delay: 2.589 ms
Loss rate: 0.00%
```

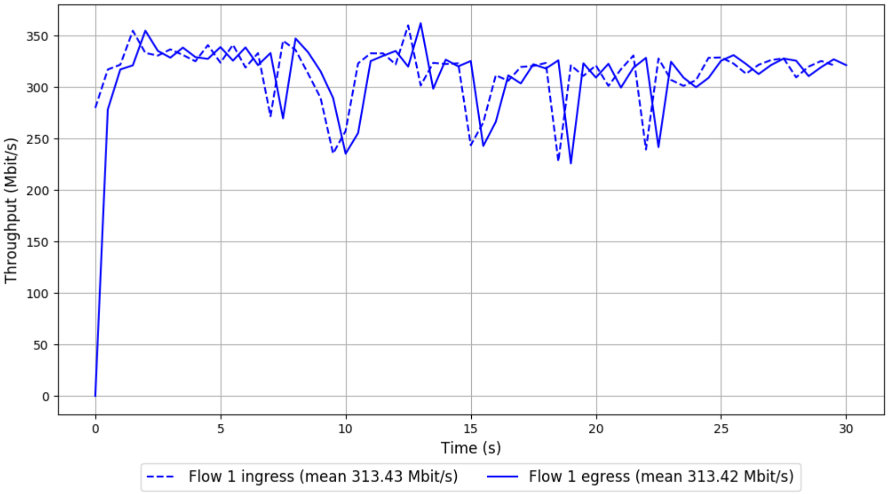
Run 3: Report of Verus — Data Link

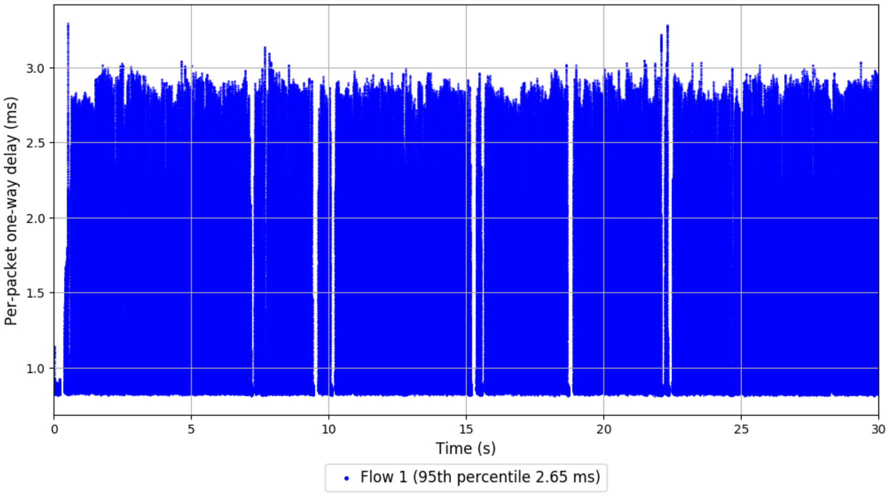




```
Run 4: Statistics of Verus

Start at: 2019-07-12 11:52:46
End at: 2019-07-12 11:53:16
Local clock offset: 4.943 ms
Remote clock offset: -0.576 ms

# Below is generated by plot.py at 2019-07-12 13:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 313.42 Mbit/s
95th percentile per-packet one-way delay: 2.654 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 313.42 Mbit/s
95th percentile per-packet one-way delay: 2.654 ms
Loss rate: 0.00%
```

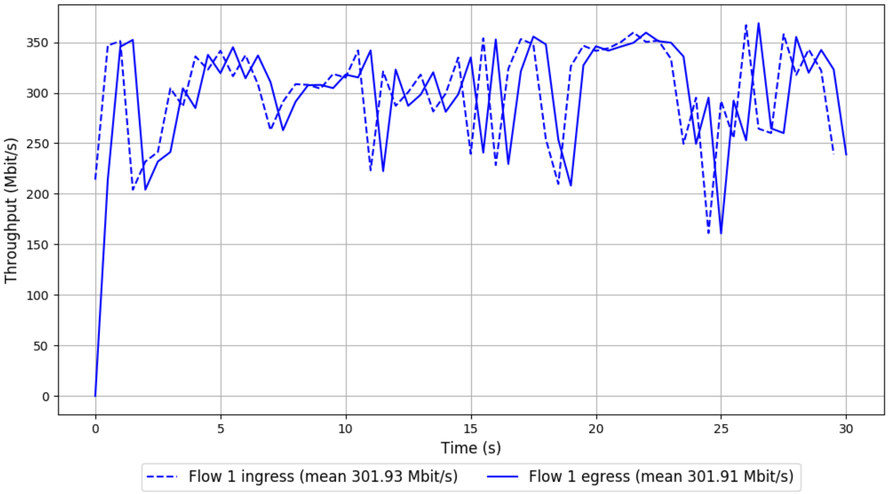
Run 4: Report of Verus — Data Link

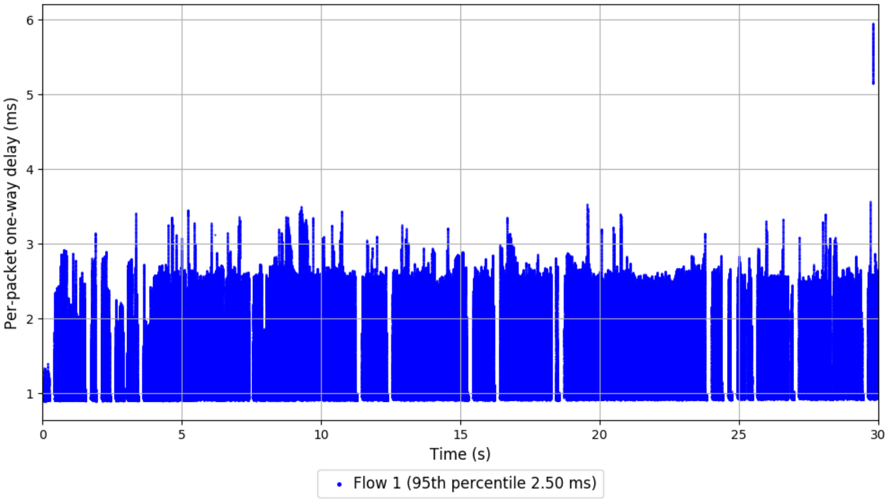




```
Run 5: Statistics of Verus

Start at: 2019-07-12 12:26:16
End at: 2019-07-12 12:26:46
Local clock offset: 5.158 ms
Remote clock offset: 3.288 ms

# Below is generated by plot.py at 2019-07-12 13:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 301.91 Mbit/s
95th percentile per-packet one-way delay: 2.496 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 301.91 Mbit/s
95th percentile per-packet one-way delay: 2.496 ms
Loss rate: 0.00%
```

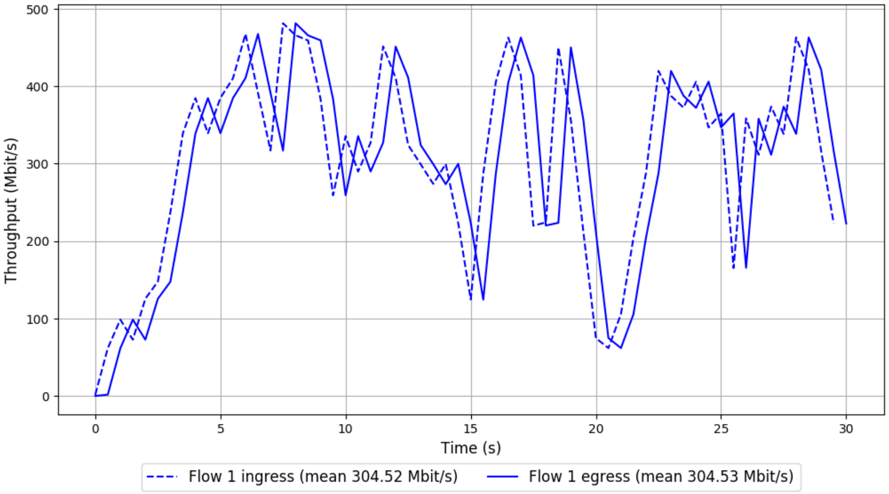
Run 5: Report of Verus — Data Link

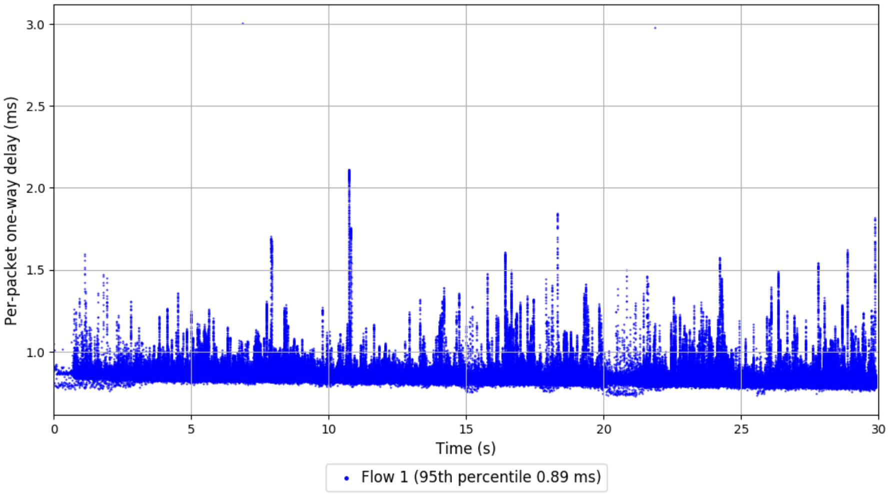




```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-12 10:23:53
End at: 2019-07-12 10:24:23
Local clock offset: 7.052 ms
Remote clock offset: 3.564 ms

# Below is generated by plot.py at 2019-07-12 13:55:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 304.53 Mbit/s
95th percentile per-packet one-way delay: 0.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 304.53 Mbit/s
95th percentile per-packet one-way delay: 0.894 ms
Loss rate: 0.00%
```

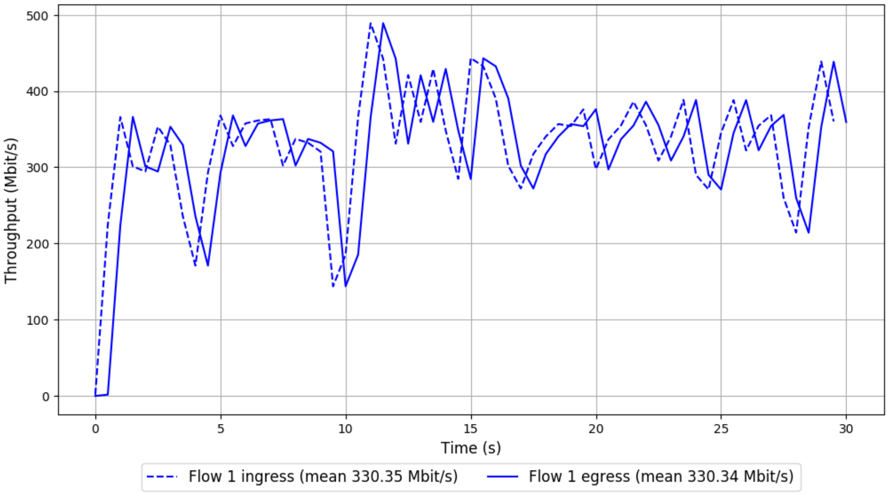
Run 1: Report of PCC-Vivace — Data Link

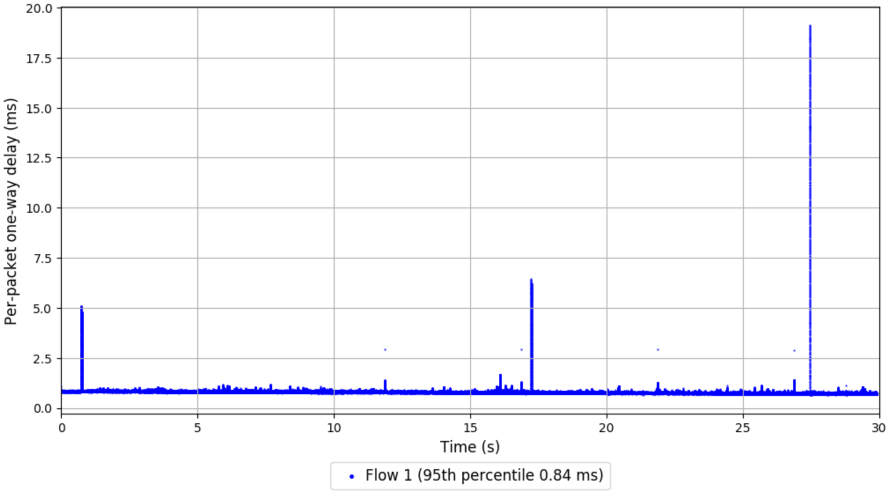




```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-12 10:57:05
End at: 2019-07-12 10:57:35
Local clock offset: 6.11 ms
Remote clock offset: 1.562 ms

# Below is generated by plot.py at 2019-07-12 13:56:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 330.34 Mbit/s
95th percentile per-packet one-way delay: 0.836 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 330.34 Mbit/s
95th percentile per-packet one-way delay: 0.836 ms
Loss rate: 0.01%
```

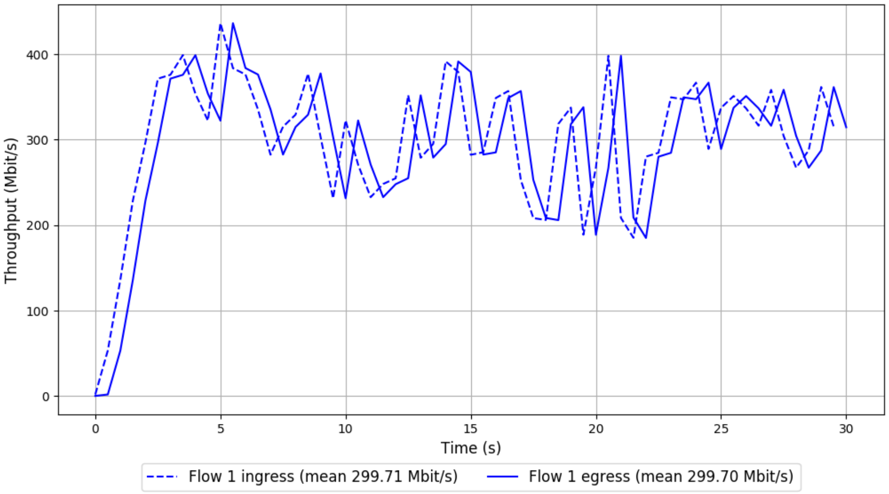
Run 2: Report of PCC-Vivace — Data Link

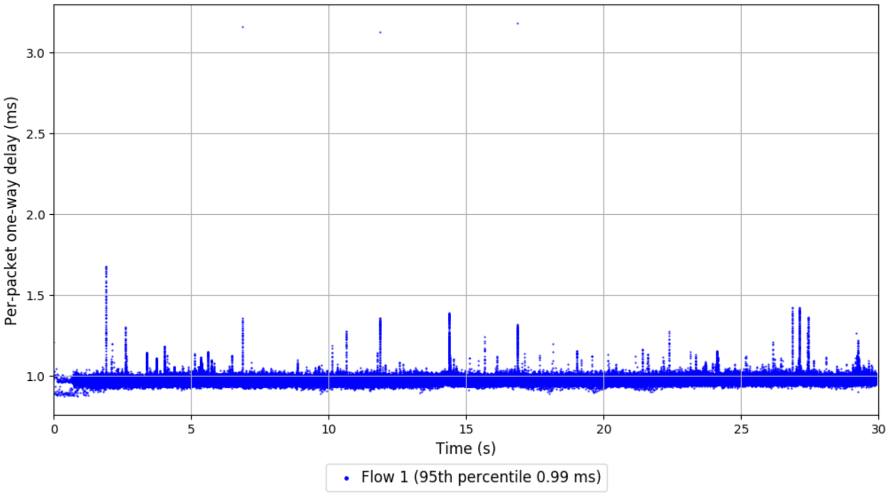




```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-12 11:30:38
End at: 2019-07-12 11:31:08
Local clock offset: 4.766 ms
Remote clock offset: -0.804 ms

# Below is generated by plot.py at 2019-07-12 13:56:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 299.70 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 299.70 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
```

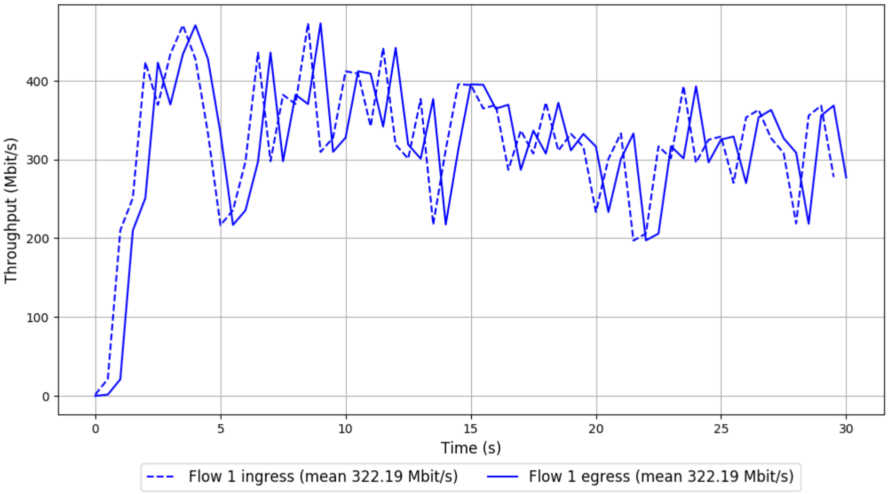
Run 3: Report of PCC-Vivace — Data Link

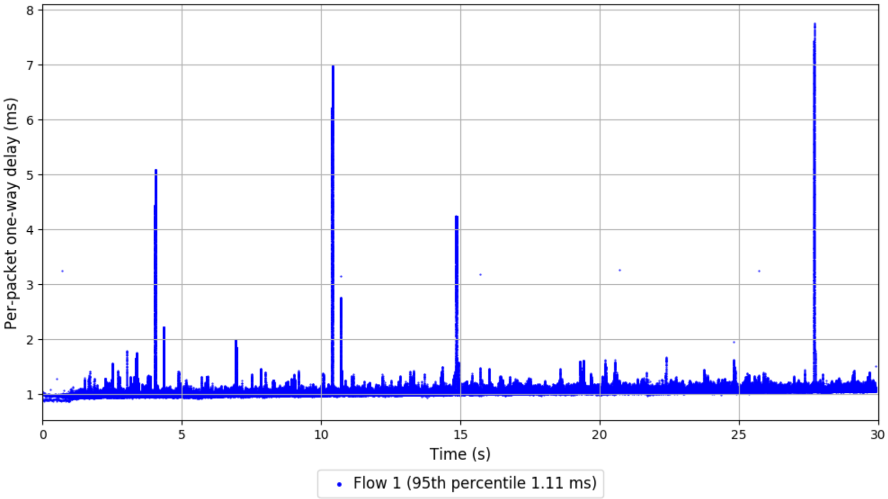




```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-12 12:04:07
End at: 2019-07-12 12:04:37
Local clock offset: 5.037 ms
Remote clock offset: 0.817 ms

# Below is generated by plot.py at 2019-07-12 13:56:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.19 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 322.19 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.01%
```

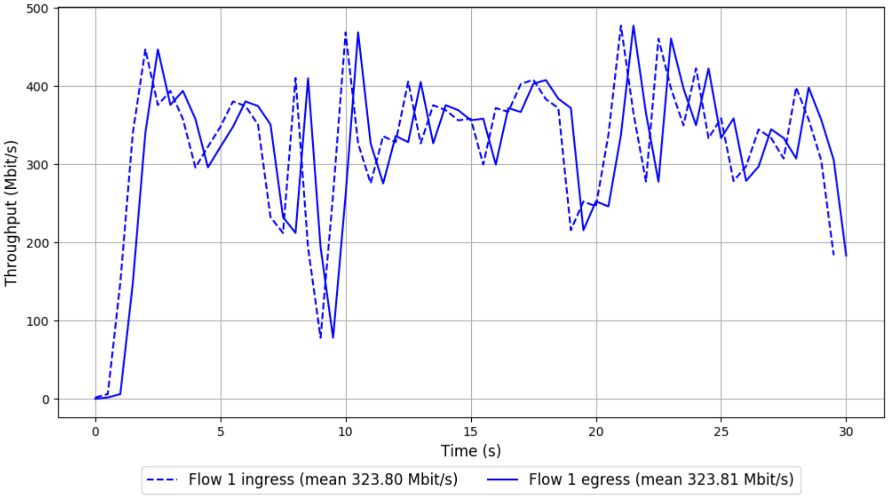
Run 4: Report of PCC-Vivace — Data Link

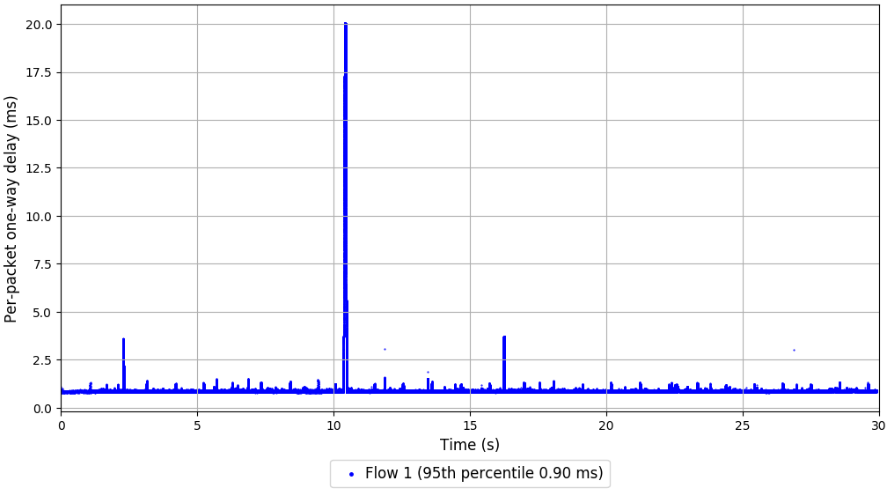




```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-12 12:37:39
End at: 2019-07-12 12:38:09
Local clock offset: 5.229 ms
Remote clock offset: 3.69 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 323.81 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 323.81 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.00%
```

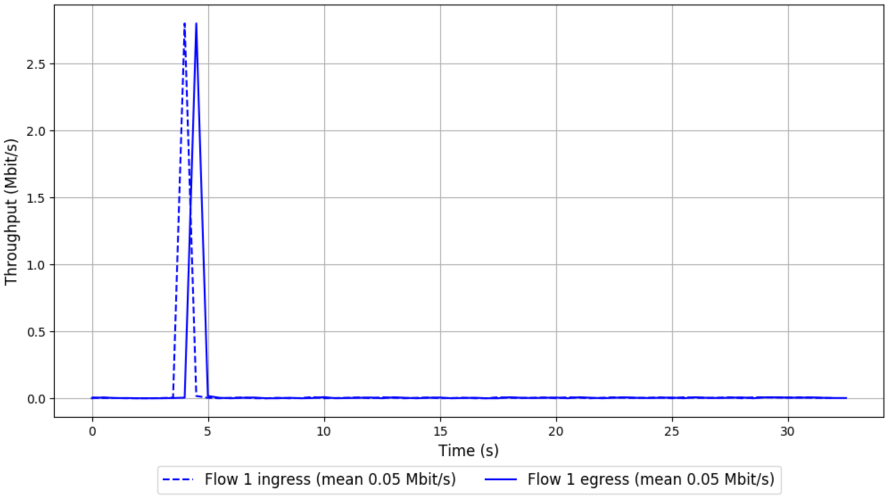
Run 5: Report of PCC-Vivace — Data Link

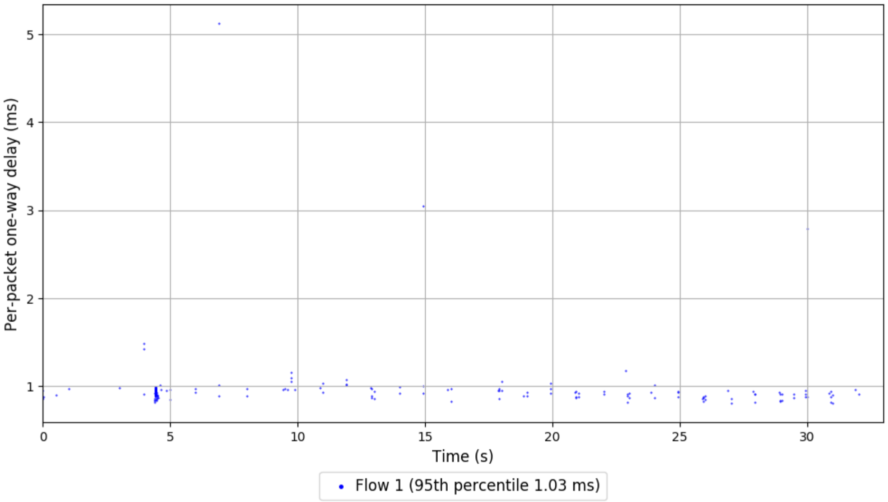




```
Run 1: Statistics of WebRTC media

Start at: 2019-07-12 10:27:52
End at: 2019-07-12 10:28:22
Local clock offset: 7.236 ms
Remote clock offset: 3.335 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
```

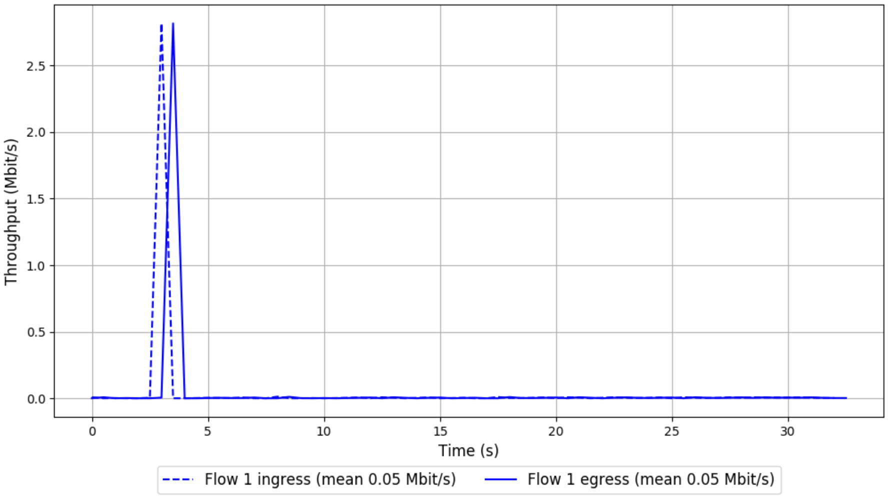
Run 1: Report of WebRTC media — Data Link

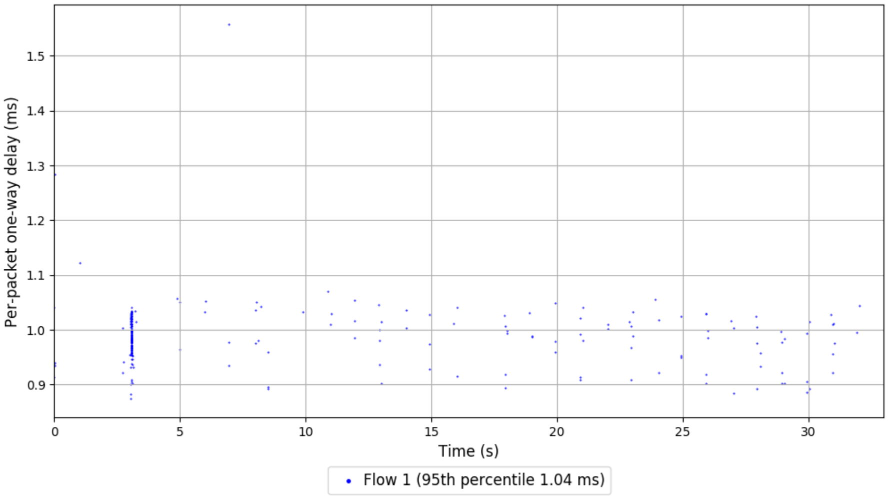




```
Run 2: Statistics of WebRTC media

Start at: 2019-07-12 11:01:06
End at: 2019-07-12 11:01:36
Local clock offset: 5.816 ms
Remote clock offset: 0.676 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
```

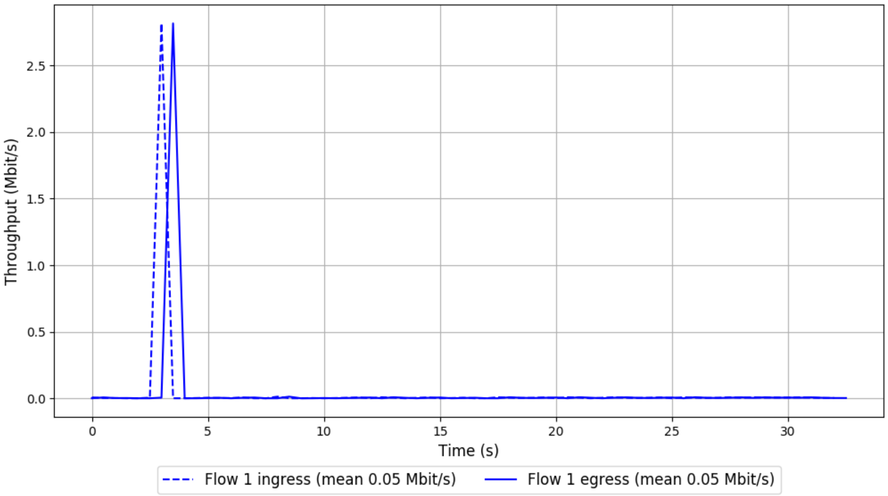
Run 2: Report of WebRTC media — Data Link

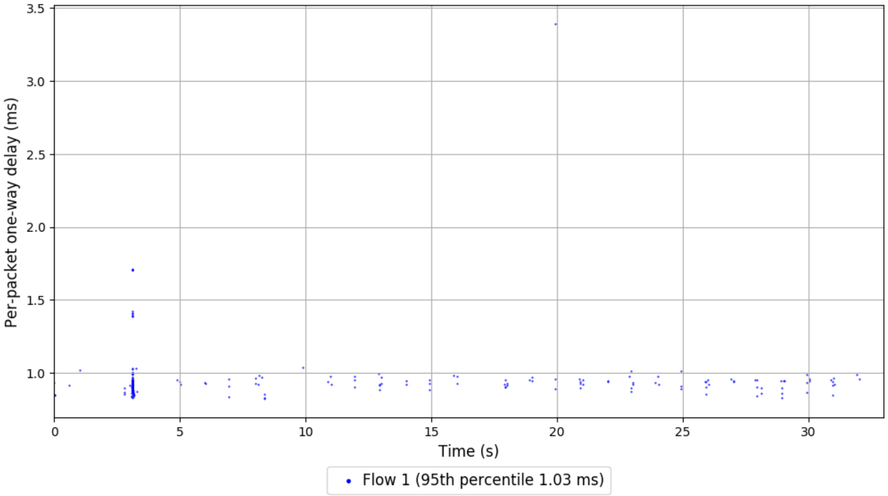




```
Run 3: Statistics of WebRTC media

Start at: 2019-07-12 11:34:38
End at: 2019-07-12 11:35:08
Local clock offset: 4.825 ms
Remote clock offset: -0.601 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.00%
```

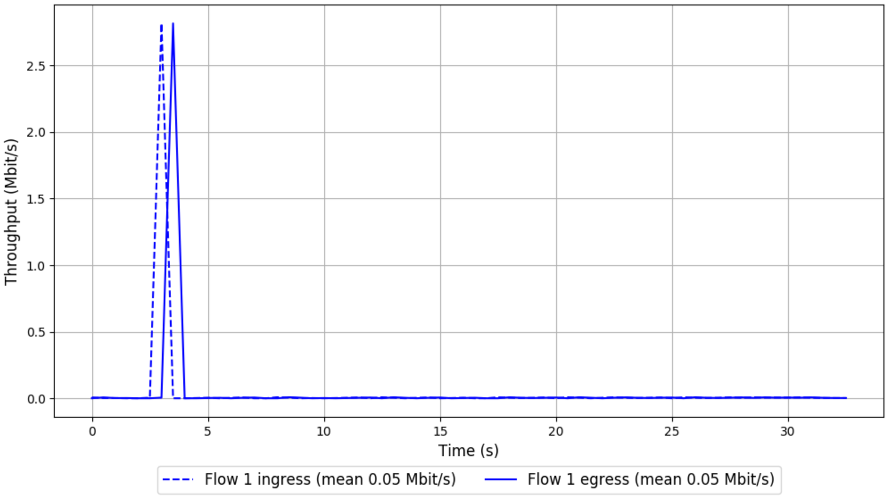
Run 3: Report of WebRTC media — Data Link

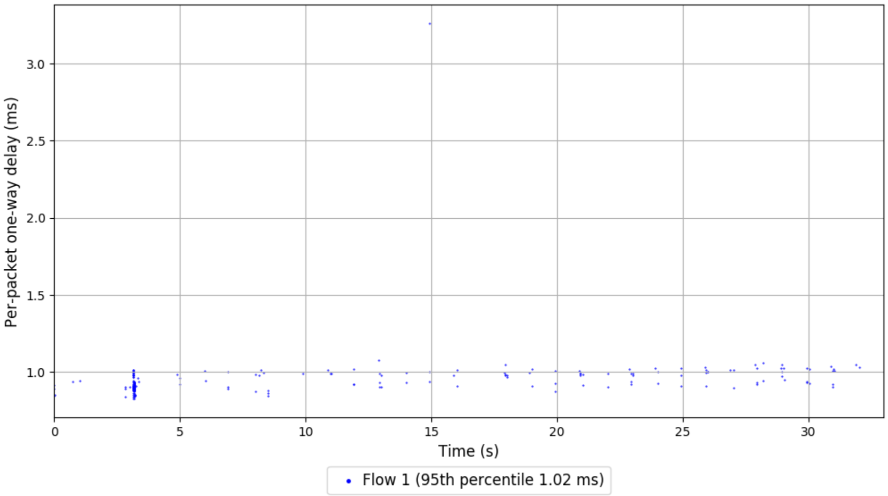




```
Run 4: Statistics of WebRTC media

Start at: 2019-07-12 12:08:09
End at: 2019-07-12 12:08:39
Local clock offset: 5.045 ms
Remote clock offset: 1.708 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.05%
```

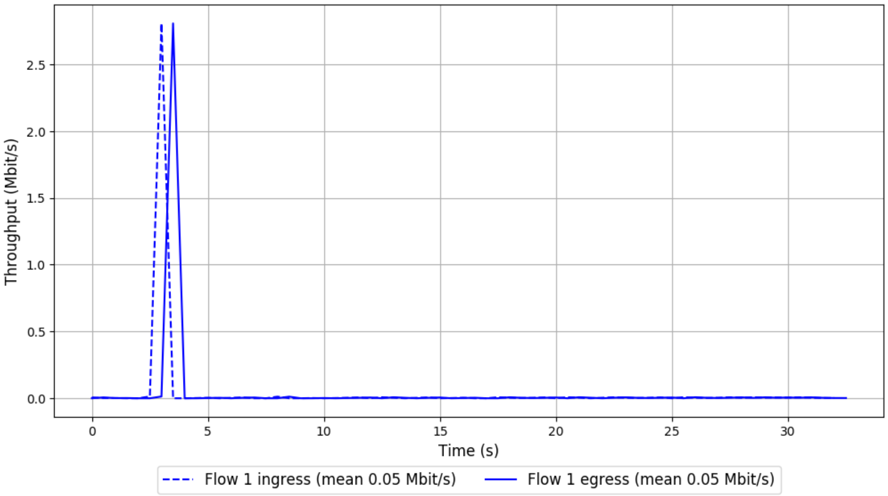
Run 4: Report of WebRTC media — Data Link



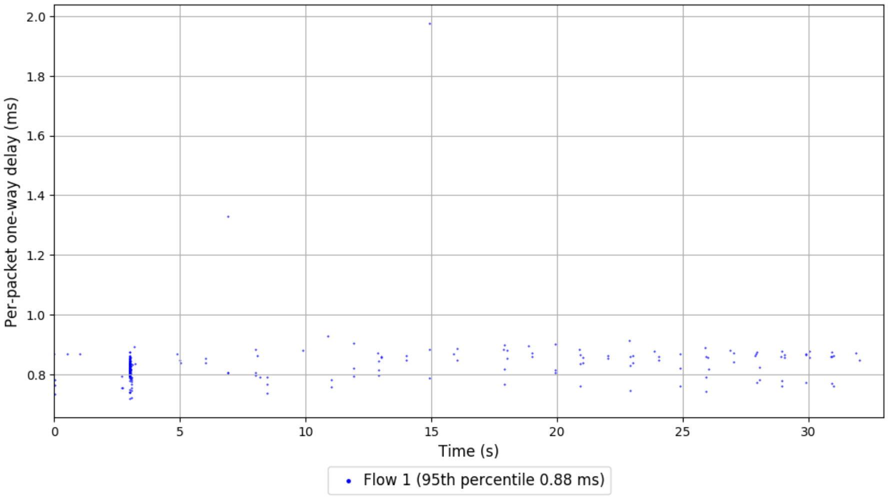


```
Run 5: Statistics of WebRTC media

Start at: 2019-07-12 12:41:45
End at: 2019-07-12 12:42:15
Local clock offset: 5.241 ms
Remote clock offset: 3.831 ms

# Below is generated by plot.py at 2019-07-12 13:56:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.884 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



Throughput (Mbit/s)
0.0
0.5
1.0
1.5
2.0
2.5
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 0.05 Mbit/s)
Flow 1 egress (mean 0.05 Mbit/s)



Per-packet one-way delay (ms)
0.8
1.0
1.2
1.4
1.6
1.8
2.0
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 0.88 ms)