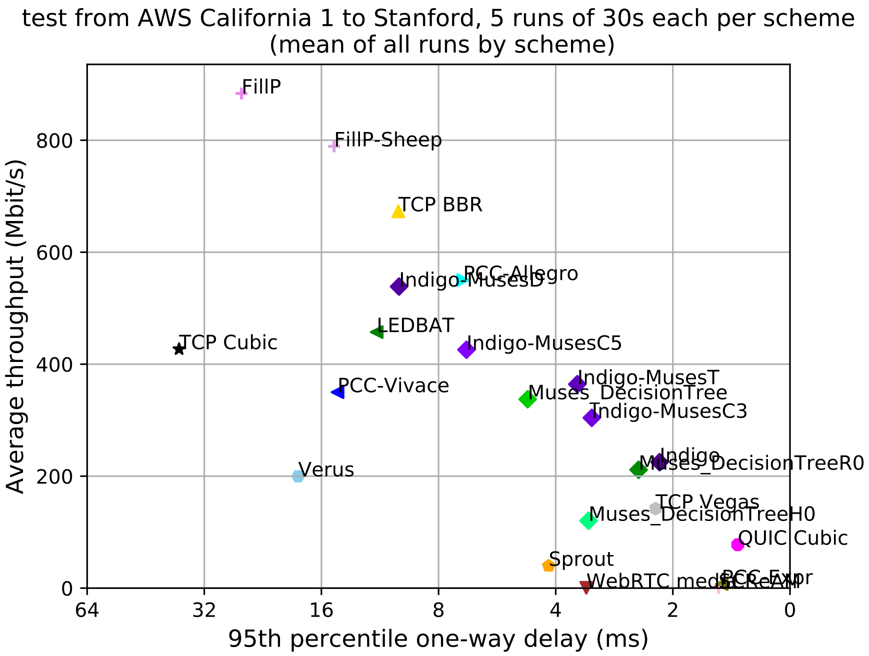
Pantheon Report

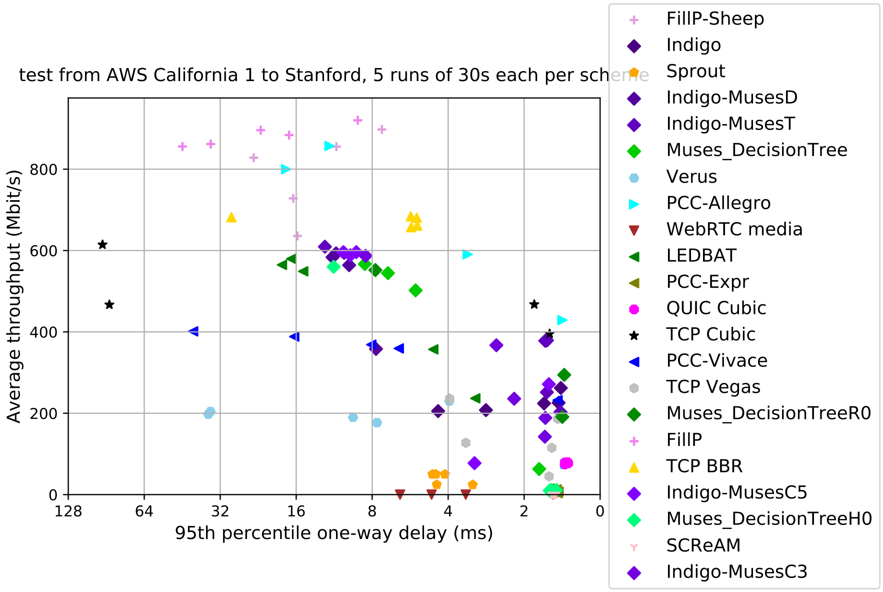
Generated at 2019-10-02 21:11:52 (UTC).
Data path: AWS California 1 on `ens5` (*local*) →Stanford on `eno1` (*remote*).
Repeated the test of 24 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1050-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 @ de42328552b3776a75a932a94dfafd722537b0ec
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 @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
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
```

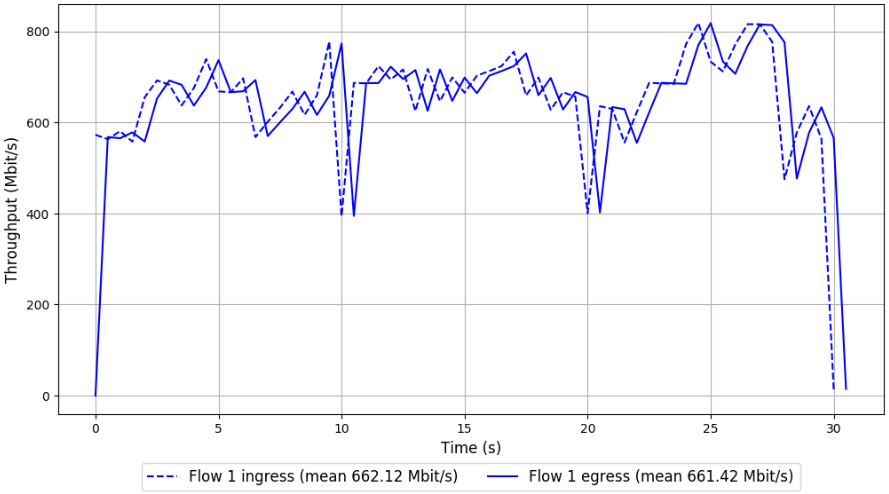

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme
(mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
64
32
16
8
4
2
0
FillP
FillP-Sheep
TCP BBR
PCC-Allegro
Indigo-MusesD
LEDBAT
TCP Cubic
Indigo-MusesC5
Indigo-MusesT
PCC-Vivace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

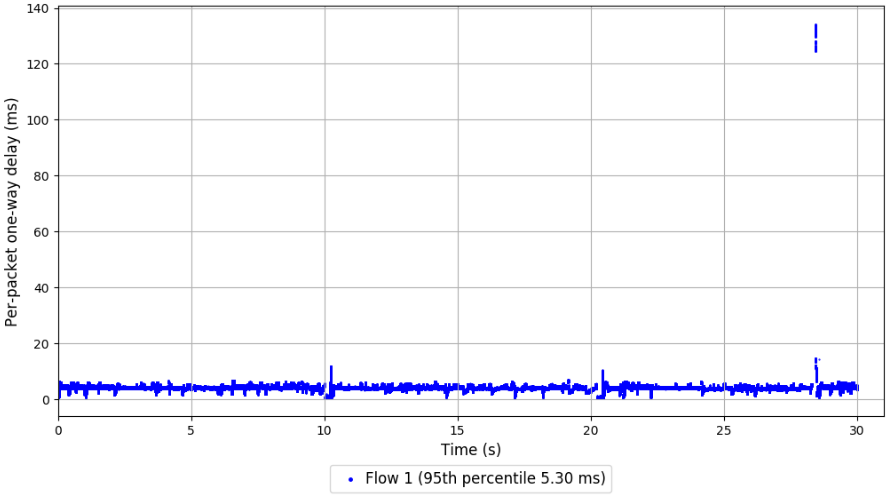

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
128
64
32
16
8
4
2
0
FillP-Sheep
Indigo
Sprout
Indigo-MusesD
Indigo-MusesT
Muses_DecisionTree
Verus
PCC-Allegro
WebRTC media
LEDBAT
PCC-Expr
QUIC Cubic
TCP Cubic
PCC-Vivace
TCP Vegas
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	673.08	10.15	0.05
Copa	0	N/A	N/A	N/A
TCP Cubic	5	426.81	37.14	0.02
FillP	5	883.48	25.67	6.70
FillP-Sheep	5	789.08	14.84	3.17
Indigo	5	225.00	2.16	0.00
Indigo-MusesC3	5	304.16	3.23	0.01
Indigo-MusesC5	5	425.80	6.78	0.06
Indigo-MusesD	5	538.64	10.11	0.03
Indigo-MusesT	5	364.25	3.52	0.01
LEDBAT	5	457.35	11.54	0.02
Muses_DecisionTree	5	337.38	4.72	0.01
Muses_DecisionTreeH0	5	120.35	3.29	0.04
Muses_DecisionTreeR0	5	211.47	2.45	0.00
PCC-Allegro	5	550.28	6.92	0.12
PCC-Expr	5	7.14	1.17	19.27
QUIC Cubic	5	77.55	0.89	0.00
SCReAM	5	0.22	1.22	0.00
Sprout	5	39.81	4.17	0.03
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	141.83	2.22	0.04
Verus	5	199.69	18.36	7.27
PCC-Vivace	5	349.96	14.55	0.00
WebRTC media	5	0.50	3.34	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-10-02 17:41:41
End at: 2019-10-02 17:42:11
Local clock offset: 4.624 ms
Remote clock offset: 3.388 ms

# Below is generated by plot.py at 2019-10-02 20:25:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 661.42 Mbit/s
95th percentile per-packet one-way delay: 5.304 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 661.42 Mbit/s
95th percentile per-packet one-way delay: 5.304 ms
Loss rate: 0.10%
```

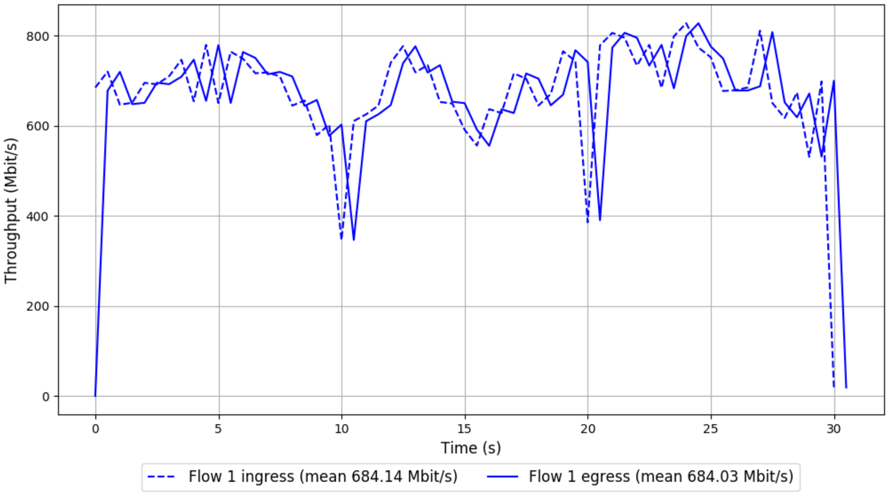
Run 1: Report of TCP BBR — Data Link

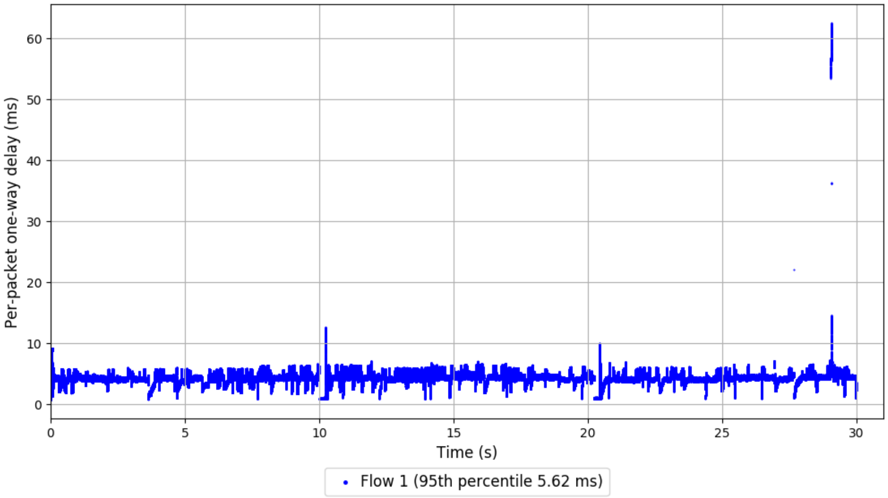




```
Run 2: Statistics of TCP BBR

Start at: 2019-10-02 18:14:10
End at: 2019-10-02 18:14:40
Local clock offset: 4.446 ms
Remote clock offset: 2.79 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 684.03 Mbit/s
95th percentile per-packet one-way delay: 5.624 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 684.03 Mbit/s
95th percentile per-packet one-way delay: 5.624 ms
Loss rate: 0.01%
```

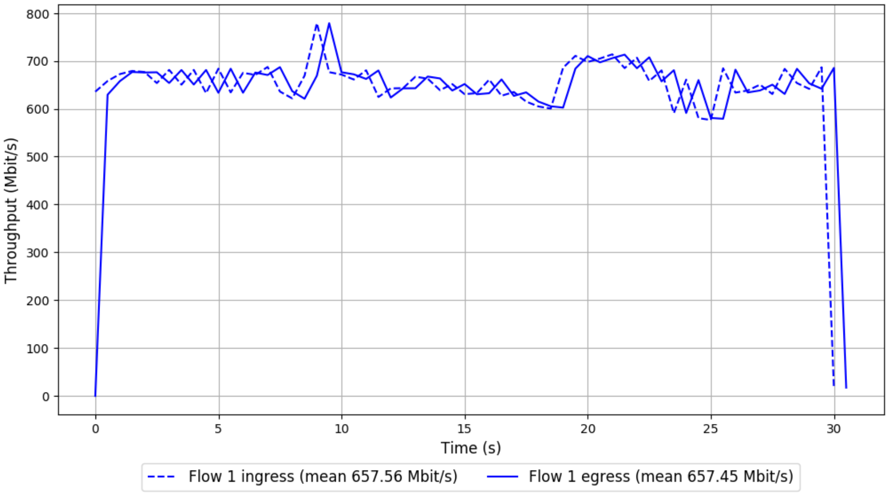
Run 2: Report of TCP BBR — Data Link

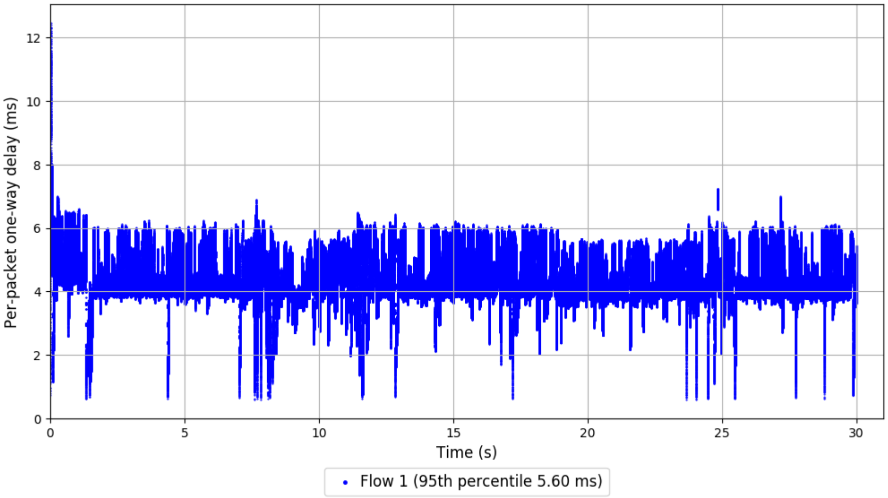




```
Run 3: Statistics of TCP BBR

Start at: 2019-10-02 18:47:32
End at: 2019-10-02 18:48:02
Local clock offset: 4.655 ms
Remote clock offset: -0.71 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 657.45 Mbit/s
95th percentile per-packet one-way delay: 5.603 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 657.45 Mbit/s
95th percentile per-packet one-way delay: 5.603 ms
Loss rate: 0.02%
```

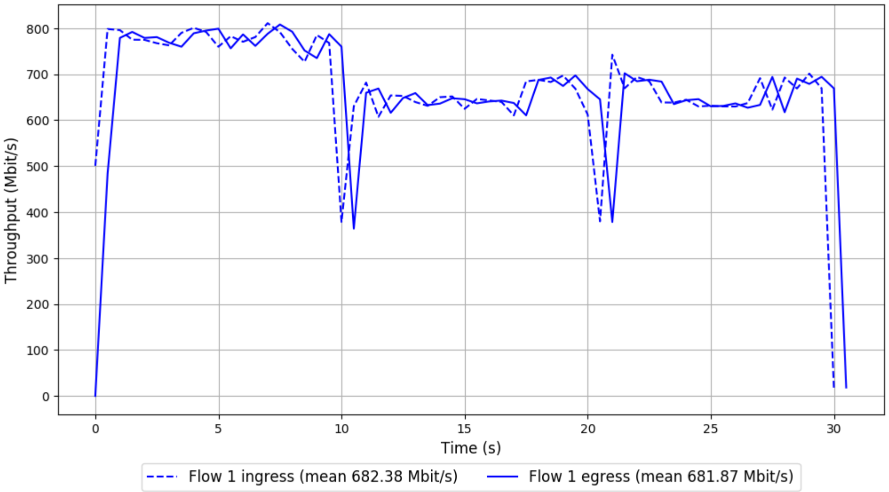
Run 3: Report of TCP BBR — Data Link

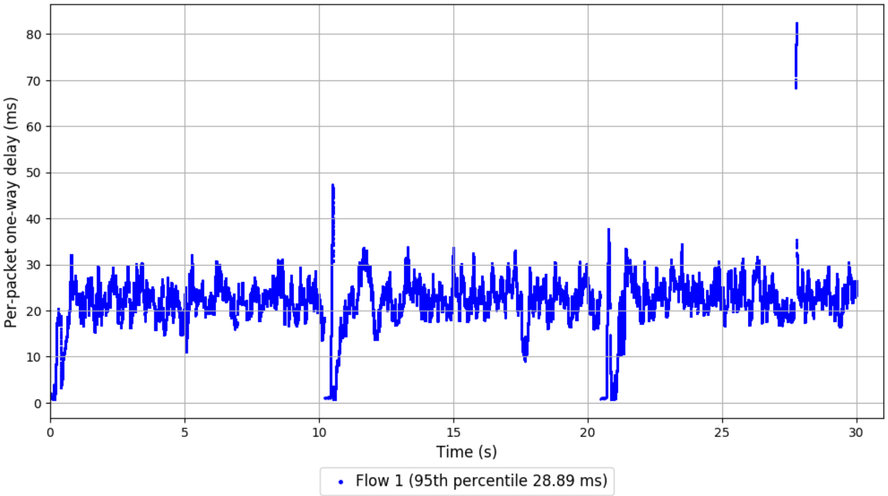




```
Run 4: Statistics of TCP BBR

Start at: 2019-10-02 19:21:06
End at: 2019-10-02 19:21:36
Local clock offset: 4.321 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 681.87 Mbit/s
95th percentile per-packet one-way delay: 28.893 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 681.87 Mbit/s
95th percentile per-packet one-way delay: 28.893 ms
Loss rate: 0.08%
```

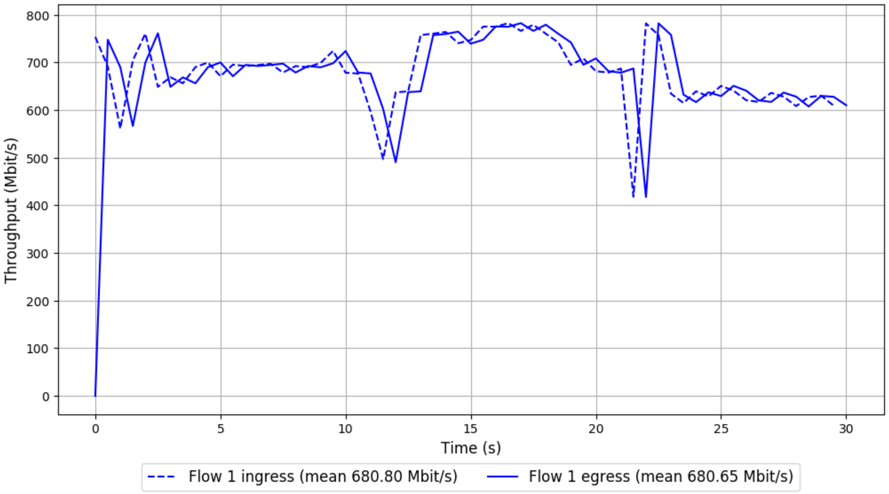
Run 4: Report of TCP BBR — Data Link

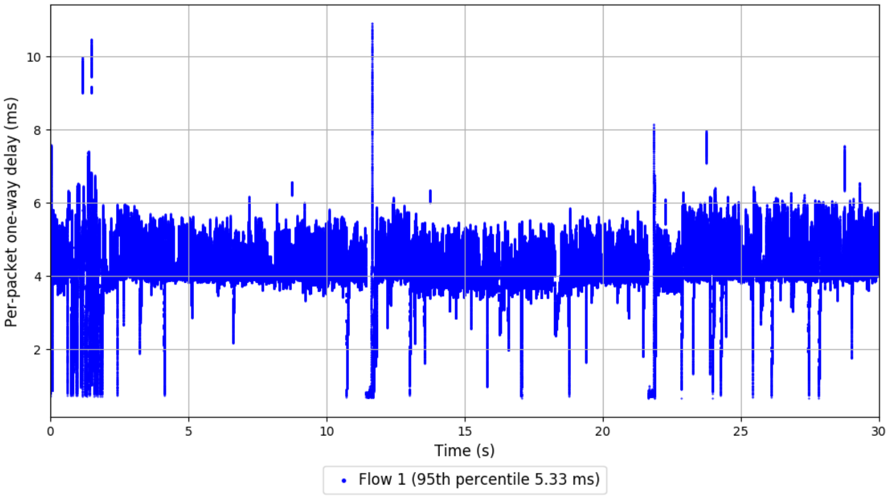




```
Run 5: Statistics of TCP BBR

Start at: 2019-10-02 19:54:39
End at: 2019-10-02 19:55:09
Local clock offset: 4.713 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 680.65 Mbit/s
95th percentile per-packet one-way delay: 5.325 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 680.65 Mbit/s
95th percentile per-packet one-way delay: 5.325 ms
Loss rate: 0.02%
```

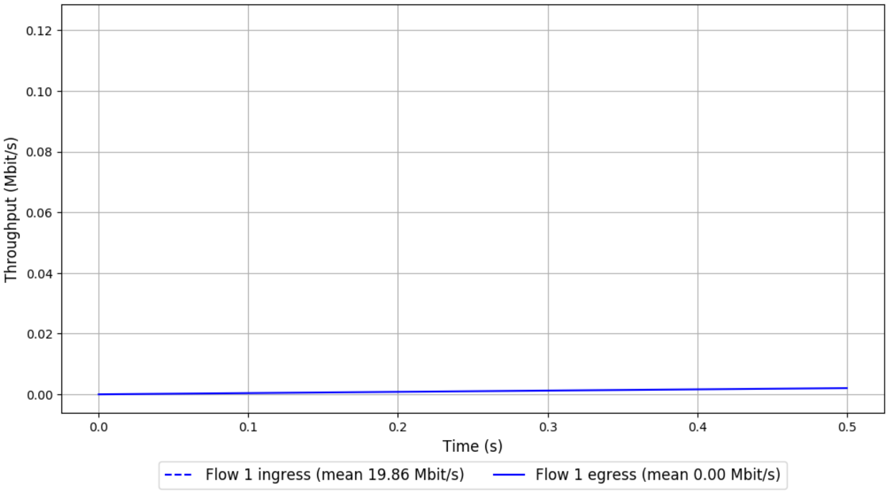
Run 5: Report of TCP BBR — Data Link

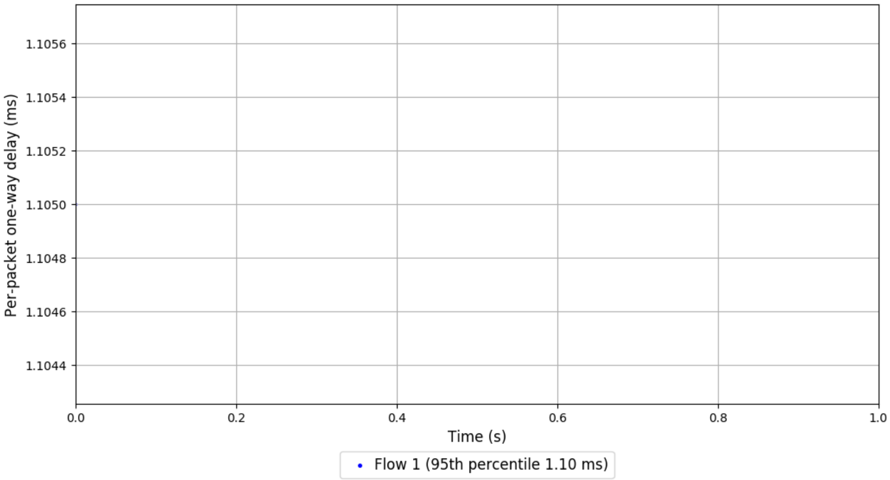




```
Run 1: Statistics of Copa

Start at: 2019-10-02 17:46:07
End at: 2019-10-02 17:46:37
Local clock offset: 4.231 ms
Remote clock offset: 3.267 ms
```

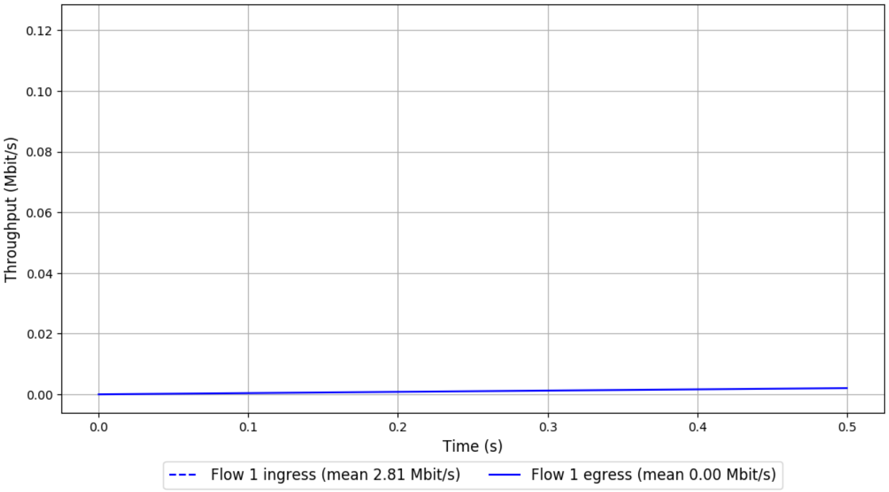
Run 1: Report of Copa — Data Link

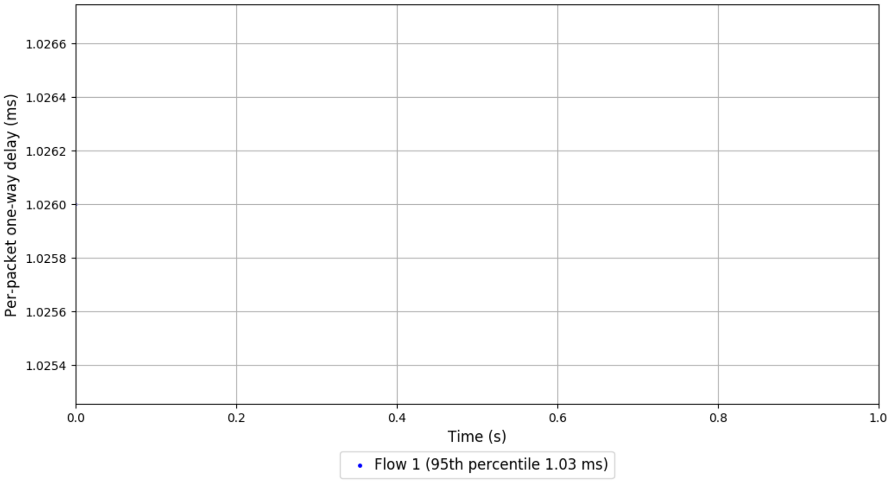




```
Run 2: Statistics of Copa

Start at: 2019-10-02 18:18:37
End at: 2019-10-02 18:19:07
Local clock offset: 4.565 ms
Remote clock offset: 1.557 ms
```

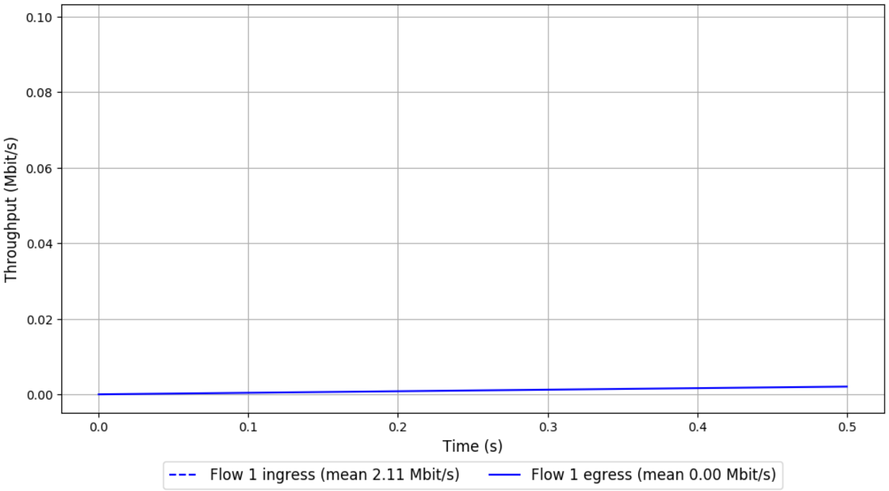
Run 2: Report of Copa — Data Link

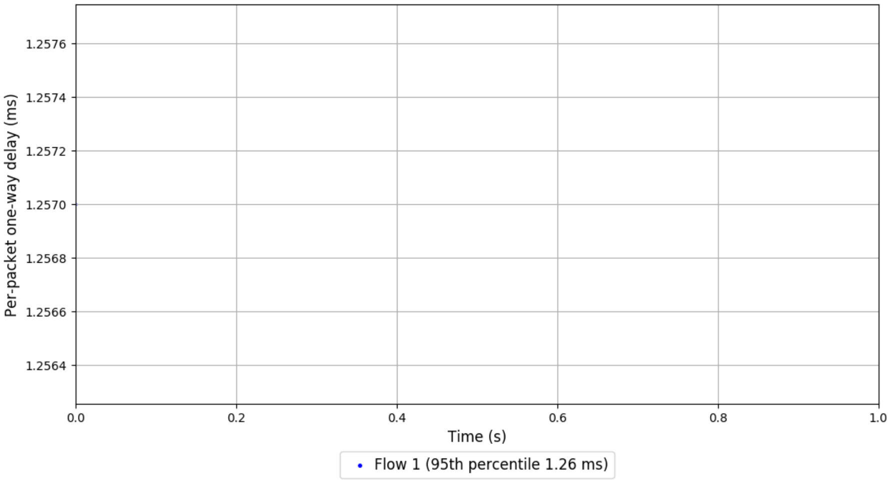




```
Run 3: Statistics of Copa

Start at: 2019-10-02 18:51:57
End at: 2019-10-02 18:52:27
Local clock offset: 4.686 ms
Remote clock offset: -0.382 ms
```

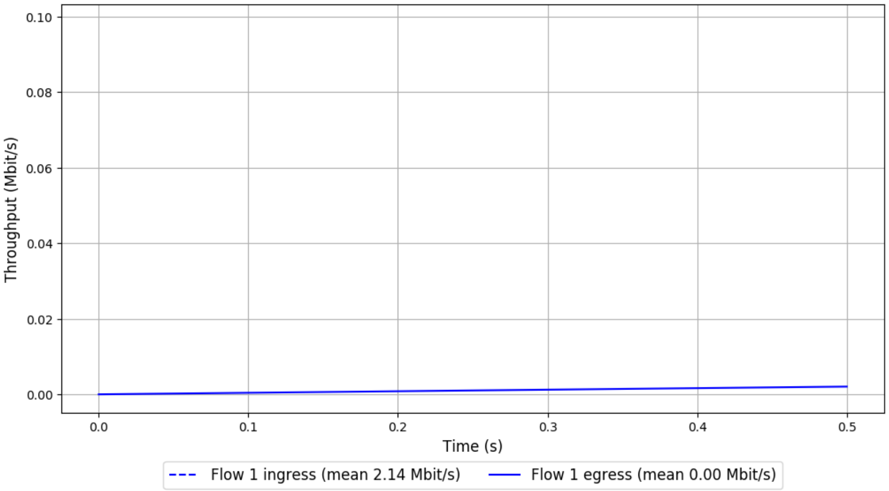
Run 3: Report of Copa — Data Link

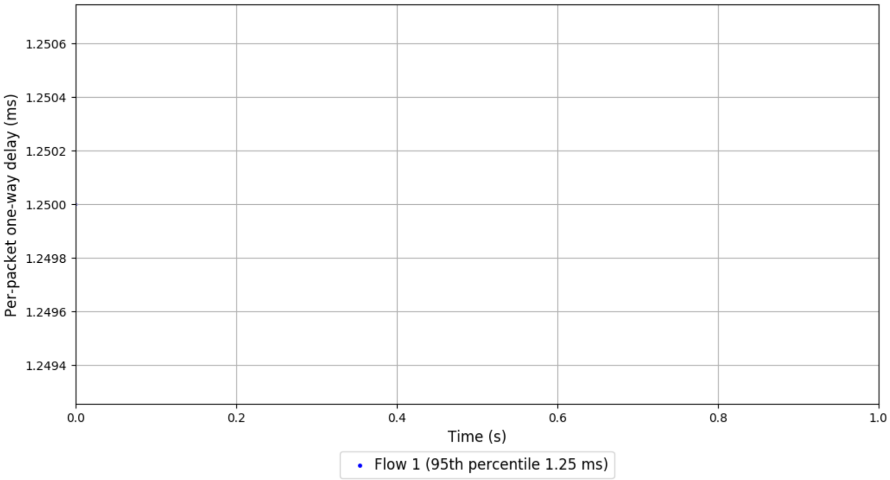




```
Run 4: Statistics of Copa

Start at: 2019-10-02 19:25:28
End at: 2019-10-02 19:25:58
Local clock offset: 4.325 ms
Remote clock offset: -0.237 ms
```

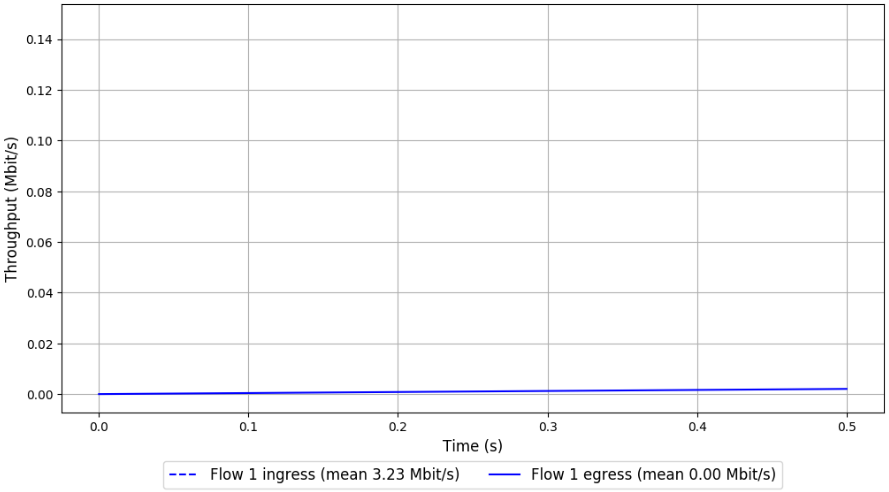
Run 4: Report of Copa — Data Link

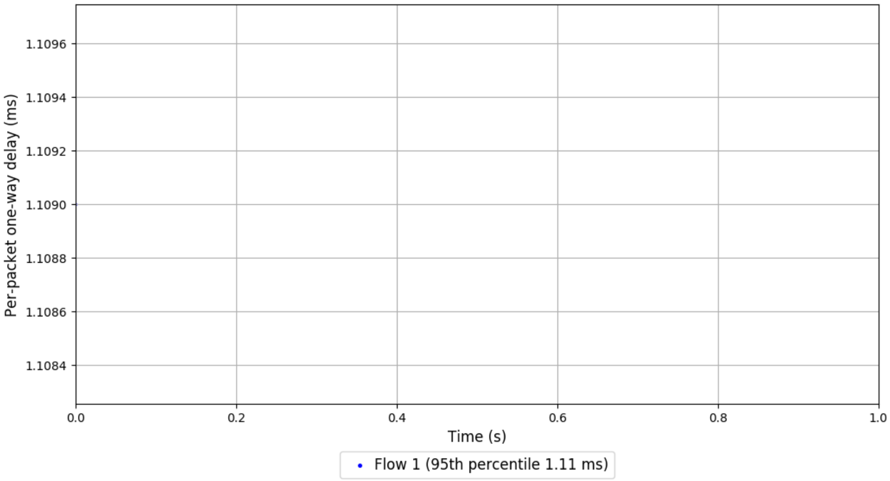




```
Run 5: Statistics of Copa

Start at: 2019-10-02 19:58:58
End at: 2019-10-02 19:59:28
Local clock offset: 4.279 ms
Remote clock offset: -0.181 ms
```

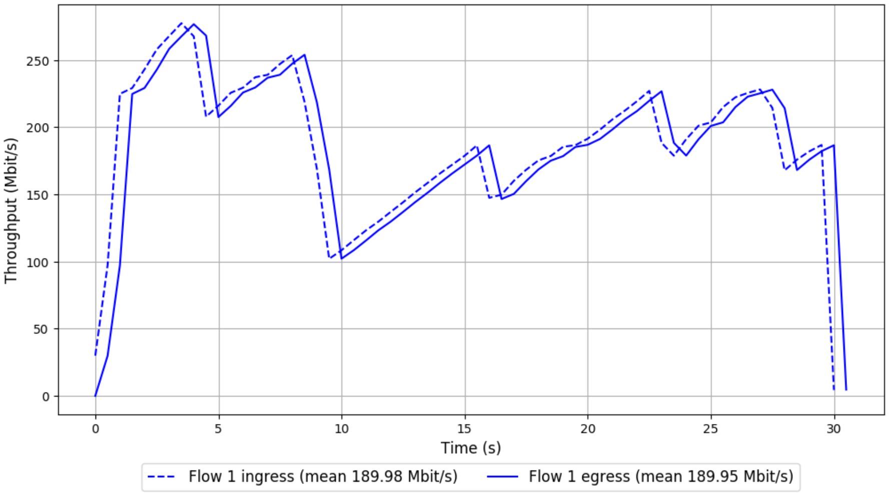
Run 5: Report of Copa — Data Link

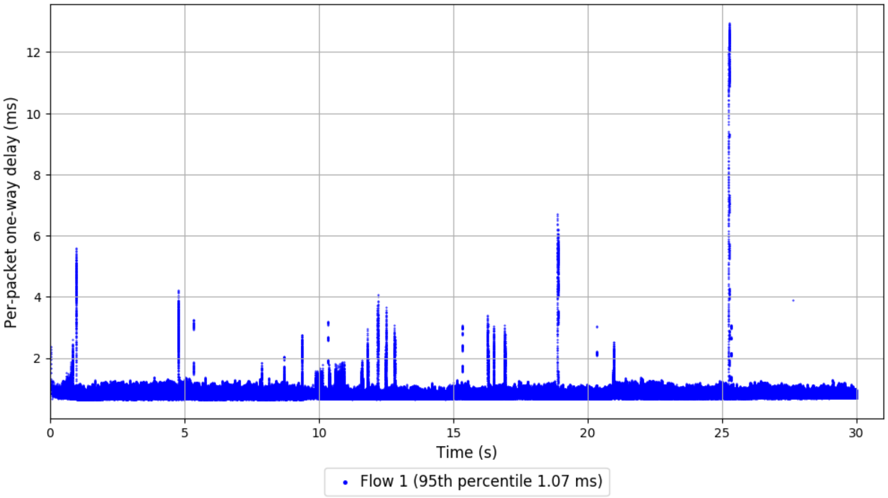




```
Run 1: Statistics of TCP Cubic

Start at: 2019-10-02 17:37:34
End at: 2019-10-02 17:38:04
Local clock offset: 4.443 ms
Remote clock offset: 3.484 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 189.95 Mbit/s
95th percentile per-packet one-way delay: 1.069 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 189.95 Mbit/s
95th percentile per-packet one-way delay: 1.069 ms
Loss rate: 0.01%
```

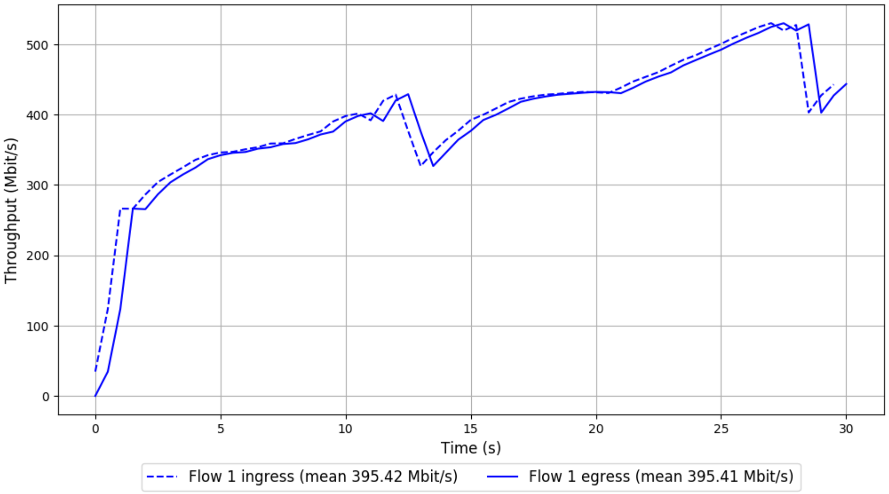
Run 1: Report of TCP Cubic — Data Link

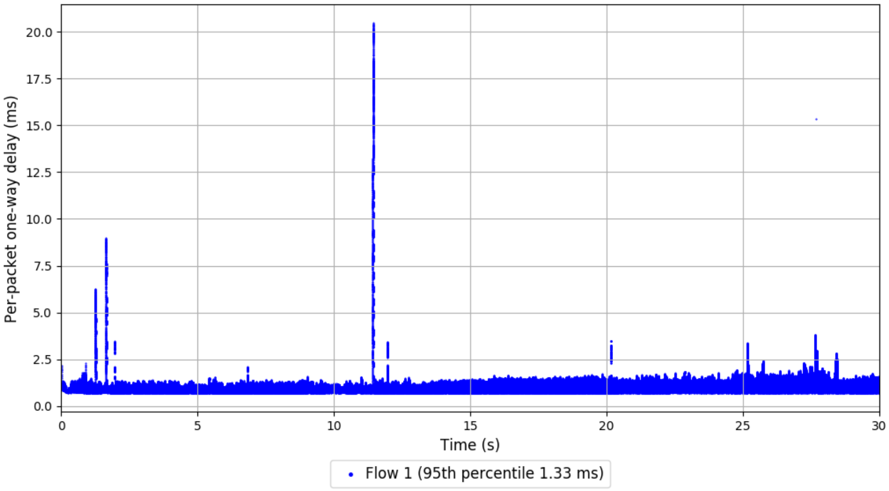




```
Run 2: Statistics of TCP Cubic

Start at: 2019-10-02 18:10:05
End at: 2019-10-02 18:10:35
Local clock offset: 4.345 ms
Remote clock offset: 3.664 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 395.41 Mbit/s
95th percentile per-packet one-way delay: 1.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 395.41 Mbit/s
95th percentile per-packet one-way delay: 1.328 ms
Loss rate: 0.00%
```

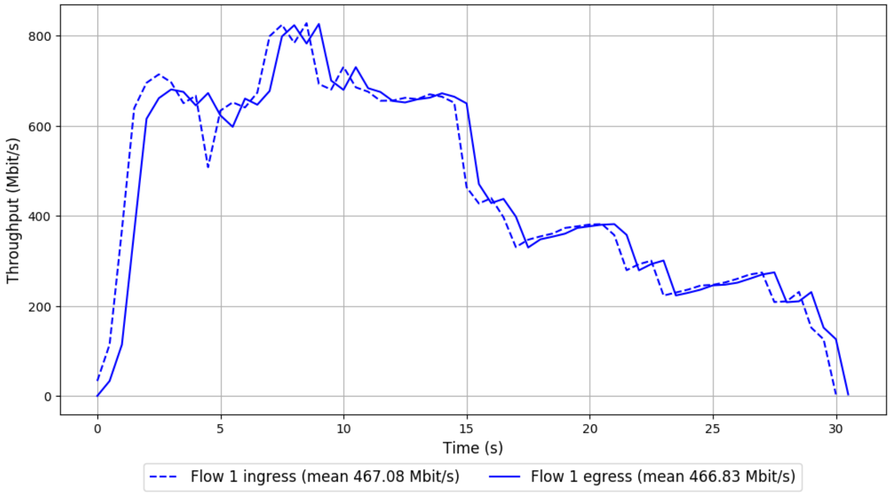
Run 2: Report of TCP Cubic — Data Link

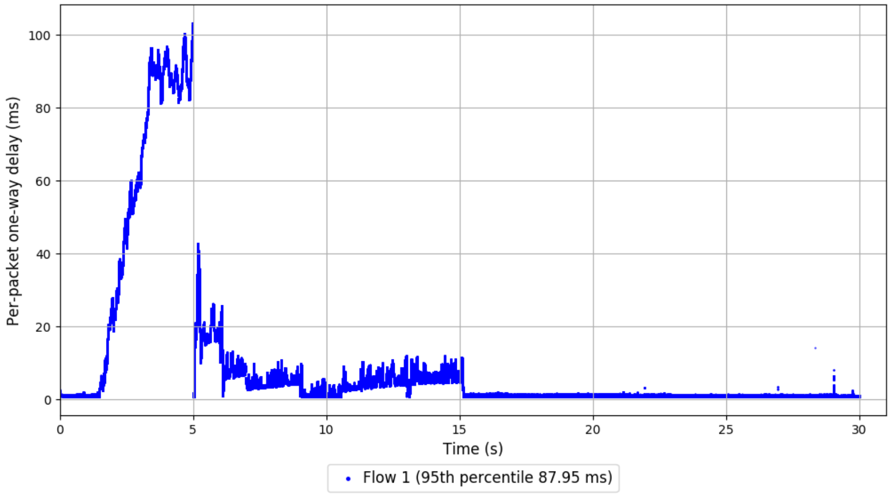




```
Run 3: Statistics of TCP Cubic

Start at: 2019-10-02 18:43:18
End at: 2019-10-02 18:43:48
Local clock offset: 4.564 ms
Remote clock offset: -0.598 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 466.83 Mbit/s
95th percentile per-packet one-way delay: 87.951 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 466.83 Mbit/s
95th percentile per-packet one-way delay: 87.951 ms
Loss rate: 0.05%
```

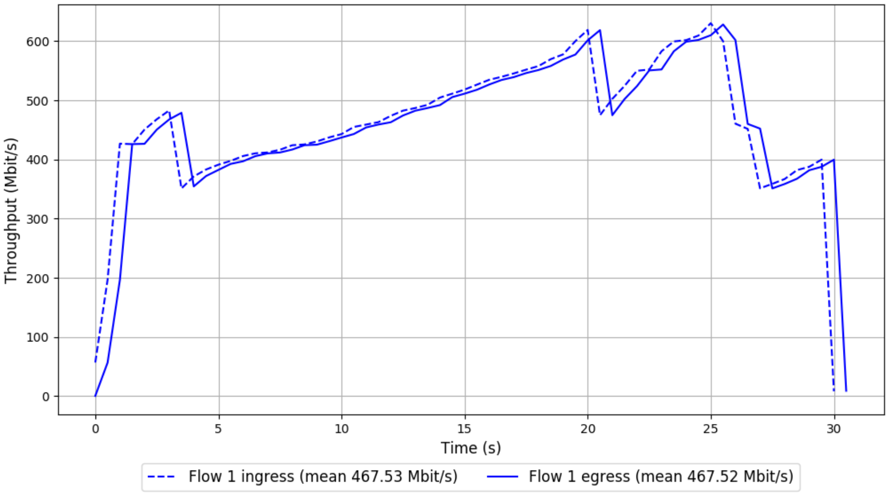
Run 3: Report of TCP Cubic — Data Link

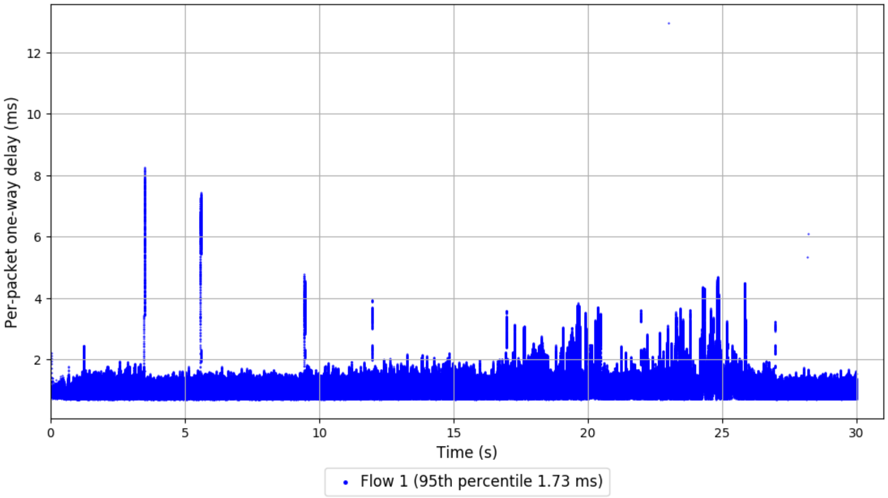




```
Run 4: Statistics of TCP Cubic

Start at: 2019-10-02 19:16:52
End at: 2019-10-02 19:17:22
Local clock offset: 4.319 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2019-10-02 20:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 467.52 Mbit/s
95th percentile per-packet one-way delay: 1.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 467.52 Mbit/s
95th percentile per-packet one-way delay: 1.733 ms
Loss rate: 0.00%
```

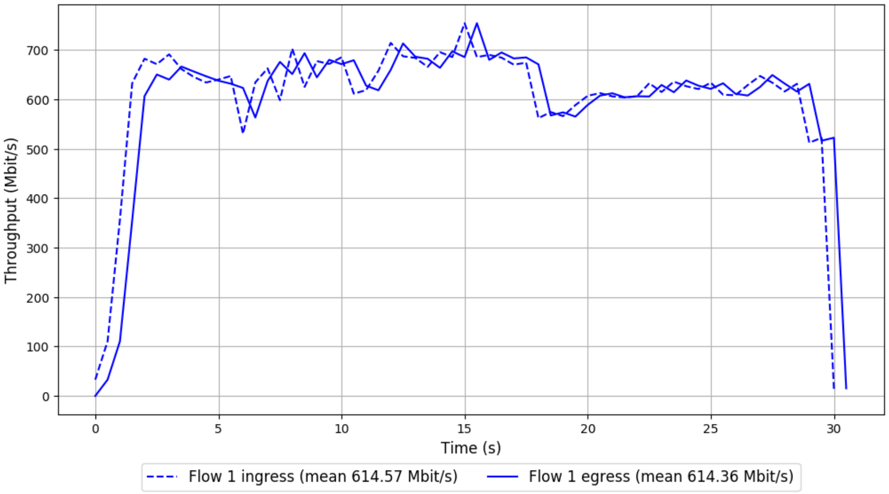
Run 4: Report of TCP Cubic — Data Link

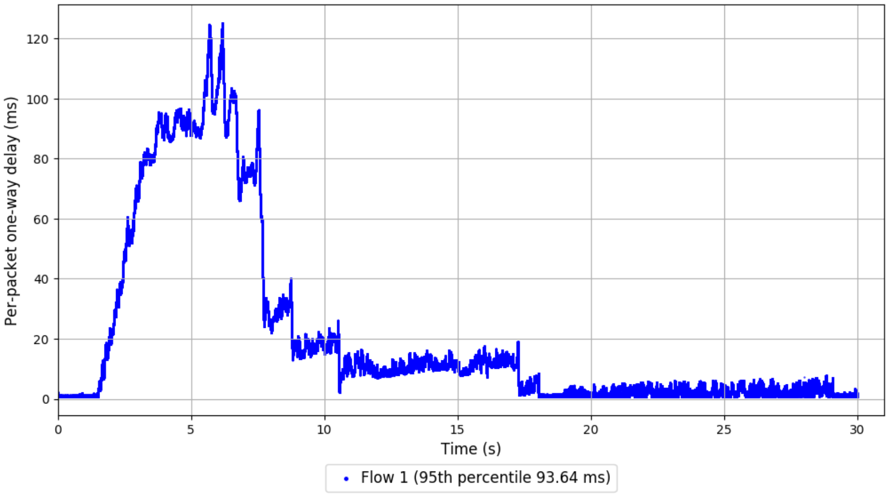




```
Run 5: Statistics of TCP Cubic

Start at: 2019-10-02 19:50:21
End at: 2019-10-02 19:50:51
Local clock offset: 4.651 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2019-10-02 20:28:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 614.36 Mbit/s
95th percentile per-packet one-way delay: 93.642 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 614.36 Mbit/s
95th percentile per-packet one-way delay: 93.642 ms
Loss rate: 0.03%
```

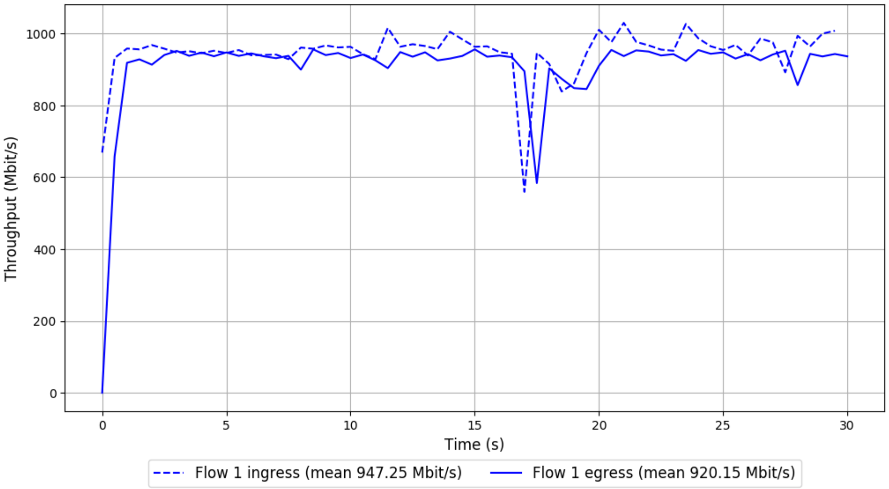
Run 5: Report of TCP Cubic — Data Link

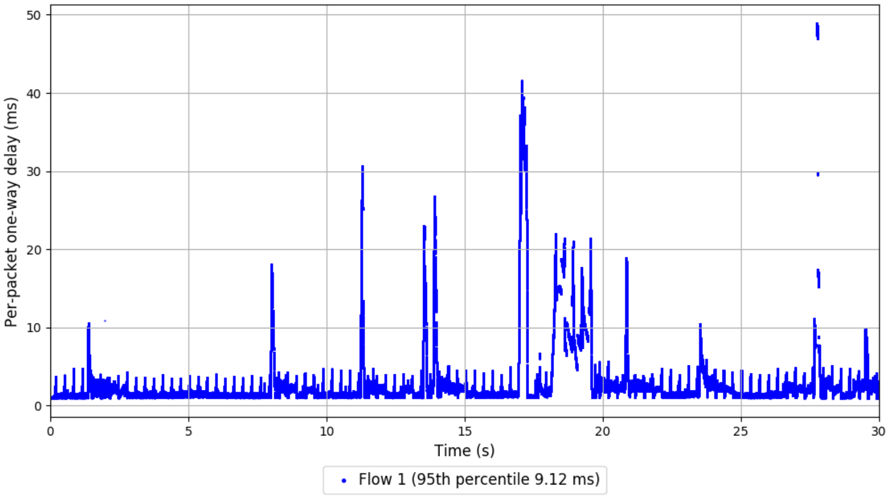




```
Run 1: Statistics of FillP

Start at: 2019-10-02 17:27:52
End at: 2019-10-02 17:28:22
Local clock offset: 5.05 ms
Remote clock offset: 3.355 ms

# Below is generated by plot.py at 2019-10-02 20:36:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 920.15 Mbit/s
95th percentile per-packet one-way delay: 9.123 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 920.15 Mbit/s
95th percentile per-packet one-way delay: 9.123 ms
Loss rate: 2.86%
```

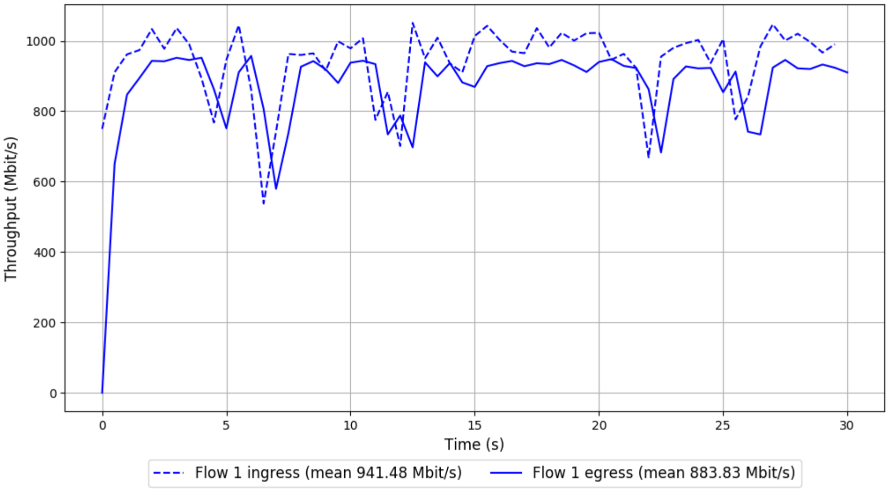
Run 1: Report of FillP — Data Link

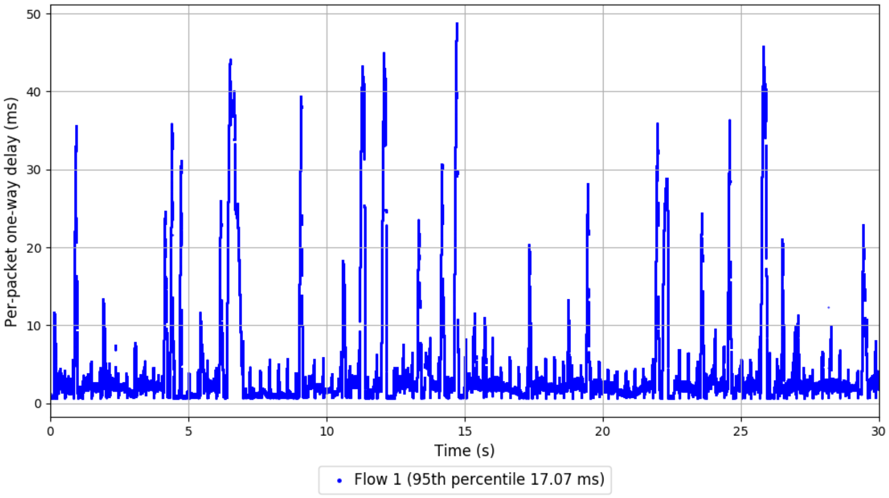




```
Run 2: Statistics of FillP

Start at: 2019-10-02 18:00:33
End at: 2019-10-02 18:01:03
Local clock offset: 4.249 ms
Remote clock offset: 3.459 ms

# Below is generated by plot.py at 2019-10-02 20:37:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 883.83 Mbit/s
95th percentile per-packet one-way delay: 17.071 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 883.83 Mbit/s
95th percentile per-packet one-way delay: 17.071 ms
Loss rate: 6.12%
```

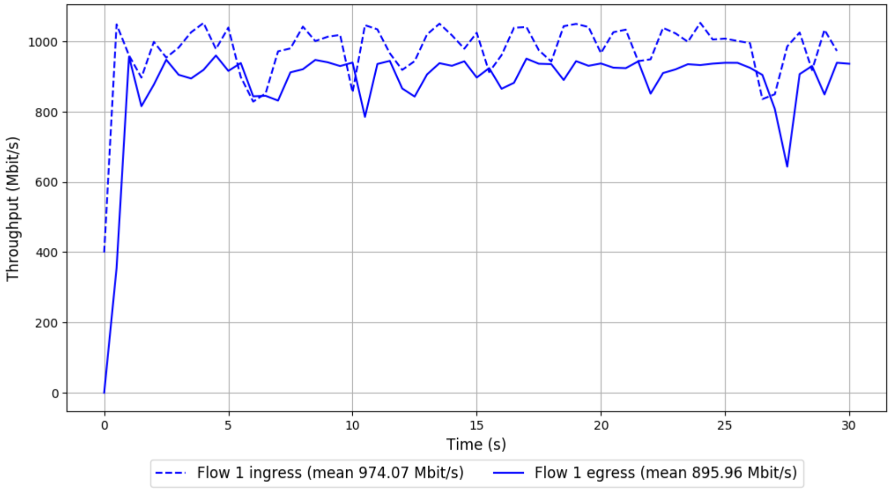
Run 2: Report of FillP — Data Link

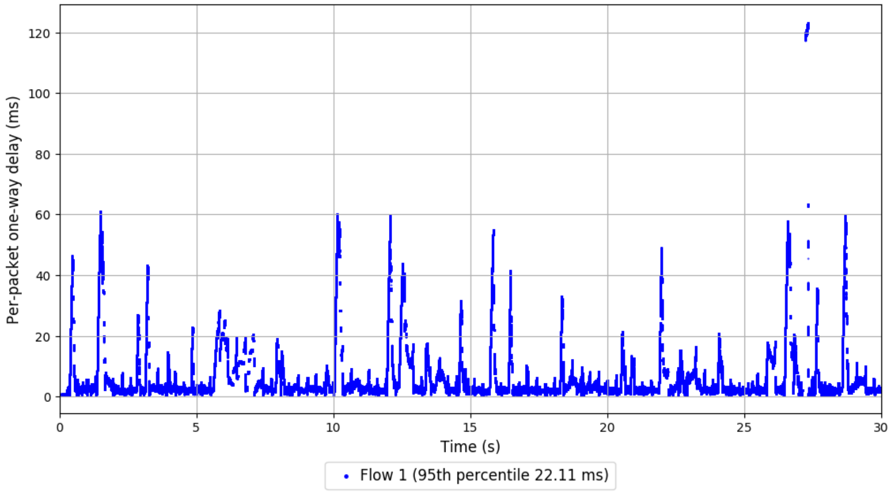




```
Run 3: Statistics of FillP

Start at: 2019-10-02 18:33:34
End at: 2019-10-02 18:34:04
Local clock offset: 4.546 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2019-10-02 20:38:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 895.96 Mbit/s
95th percentile per-packet one-way delay: 22.109 ms
Loss rate: 8.01%
-- Flow 1:
Average throughput: 895.96 Mbit/s
95th percentile per-packet one-way delay: 22.109 ms
Loss rate: 8.01%
```

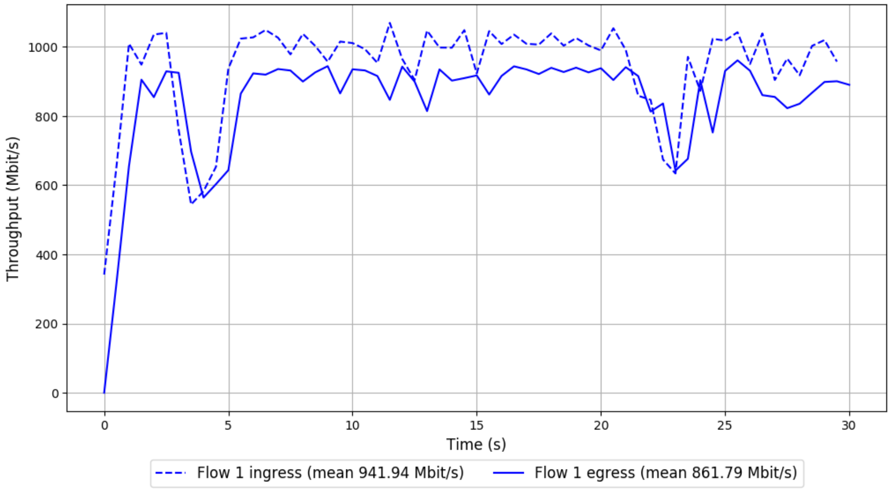
Run 3: Report of FillP — Data Link

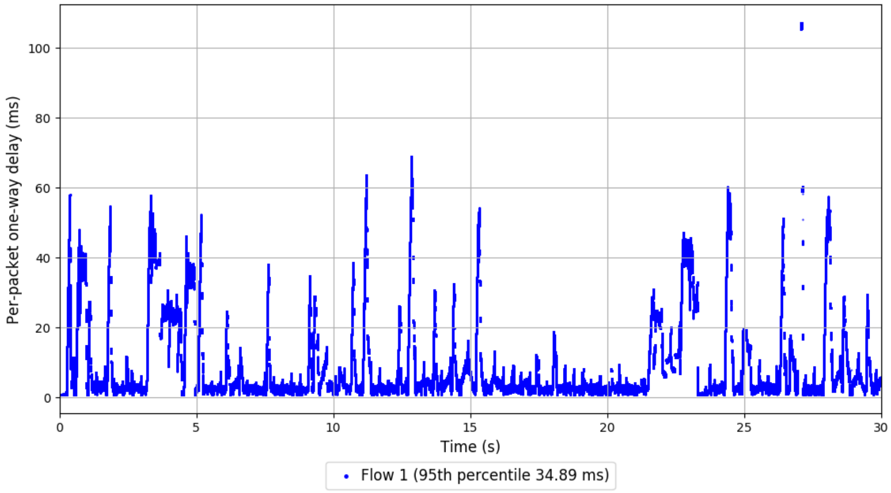




```
Run 4: Statistics of FillP

Start at: 2019-10-02 19:07:18
End at: 2019-10-02 19:07:48
Local clock offset: 4.351 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2019-10-02 20:38:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 861.79 Mbit/s
95th percentile per-packet one-way delay: 34.891 ms
Loss rate: 8.50%
-- Flow 1:
Average throughput: 861.79 Mbit/s
95th percentile per-packet one-way delay: 34.891 ms
Loss rate: 8.50%
```

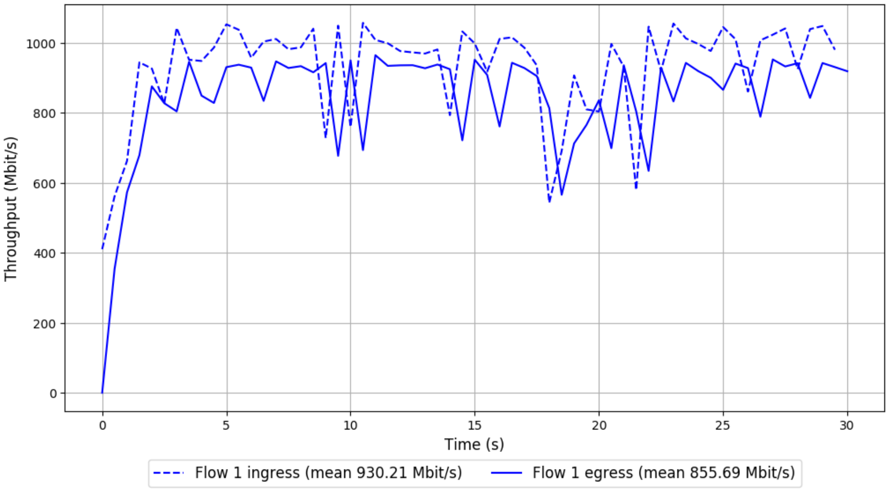
Run 4: Report of FillP — Data Link

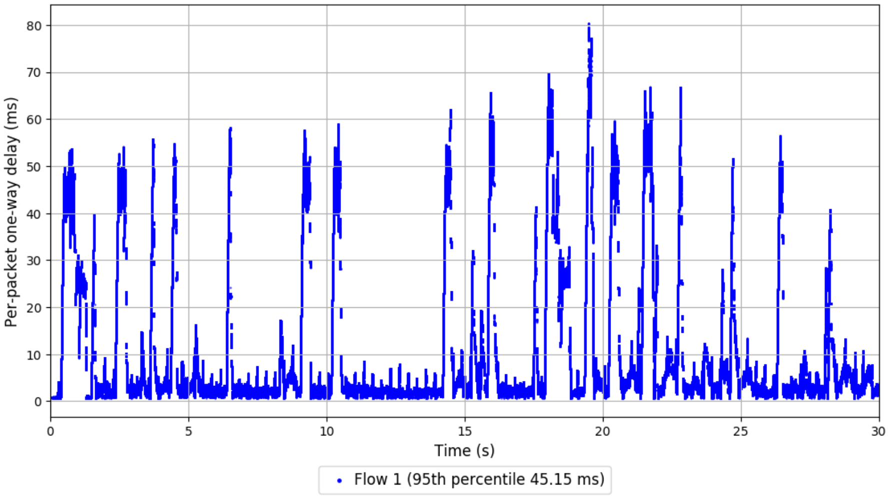




```
Run 5: Statistics of FillP

Start at: 2019-10-02 19:40:40
End at: 2019-10-02 19:41:10
Local clock offset: 4.55 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2019-10-02 20:38:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 855.69 Mbit/s
95th percentile per-packet one-way delay: 45.154 ms
Loss rate: 8.00%
-- Flow 1:
Average throughput: 855.69 Mbit/s
95th percentile per-packet one-way delay: 45.154 ms
Loss rate: 8.00%
```

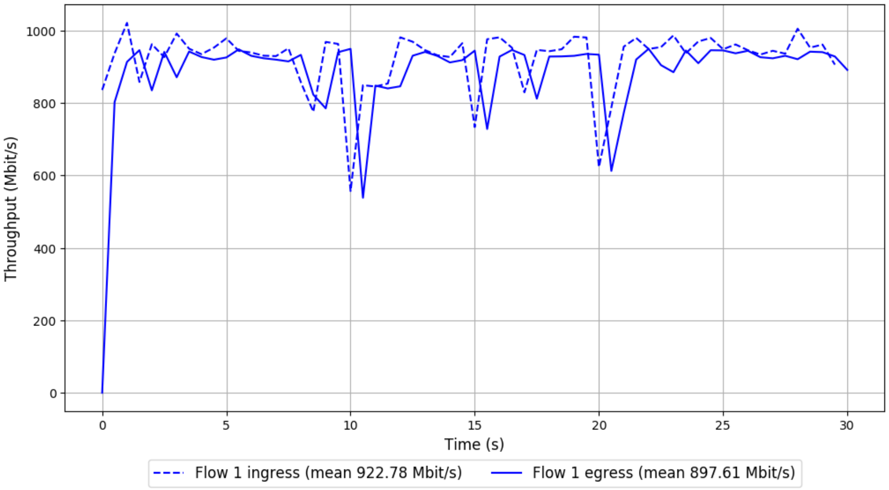
Run 5: Report of FillP — Data Link

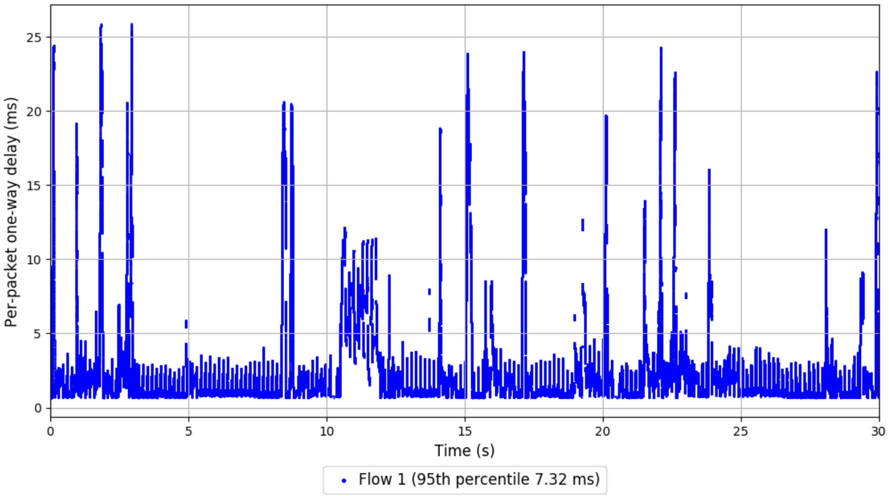




```
Run 1: Statistics of FillP-Sheep

Start at: 2019-10-02 17:44:29
End at: 2019-10-02 17:44:59
Local clock offset: 4.356 ms
Remote clock offset: 3.358 ms

# Below is generated by plot.py at 2019-10-02 20:38:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 897.61 Mbit/s
95th percentile per-packet one-way delay: 7.321 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 897.61 Mbit/s
95th percentile per-packet one-way delay: 7.321 ms
Loss rate: 2.73%
```

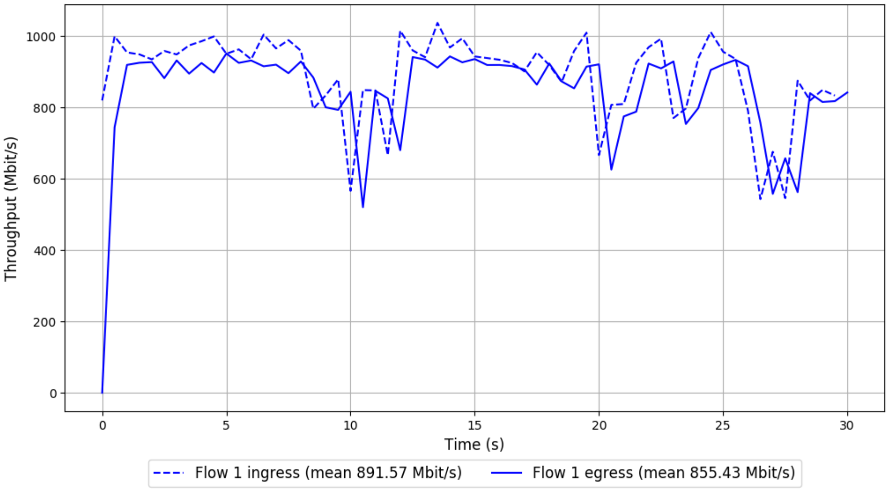
Run 1: Report of FillP-Sheep — Data Link

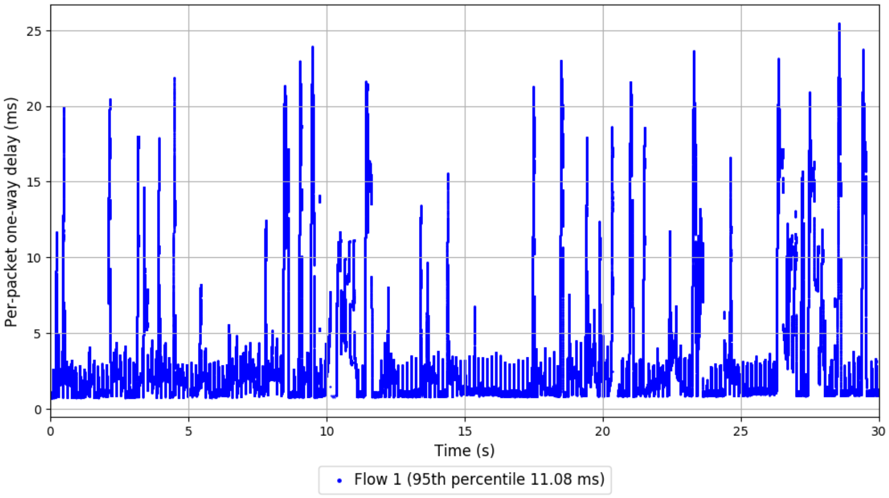




```
Run 2: Statistics of FillP-Sheep

Start at: 2019-10-02 18:17:00
End at: 2019-10-02 18:17:30
Local clock offset: 4.527 ms
Remote clock offset: 1.947 ms

# Below is generated by plot.py at 2019-10-02 20:38:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 855.43 Mbit/s
95th percentile per-packet one-way delay: 11.084 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 855.43 Mbit/s
95th percentile per-packet one-way delay: 11.084 ms
Loss rate: 4.05%
```

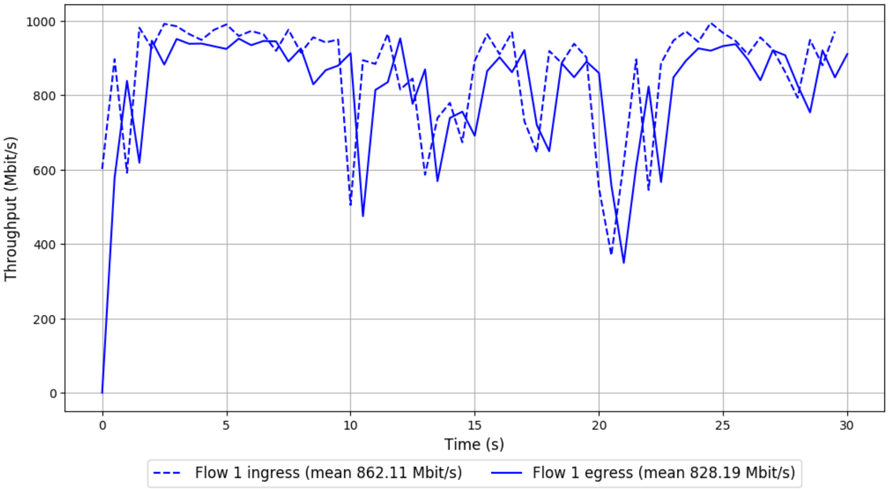
Run 2: Report of FillP-Sheep — Data Link

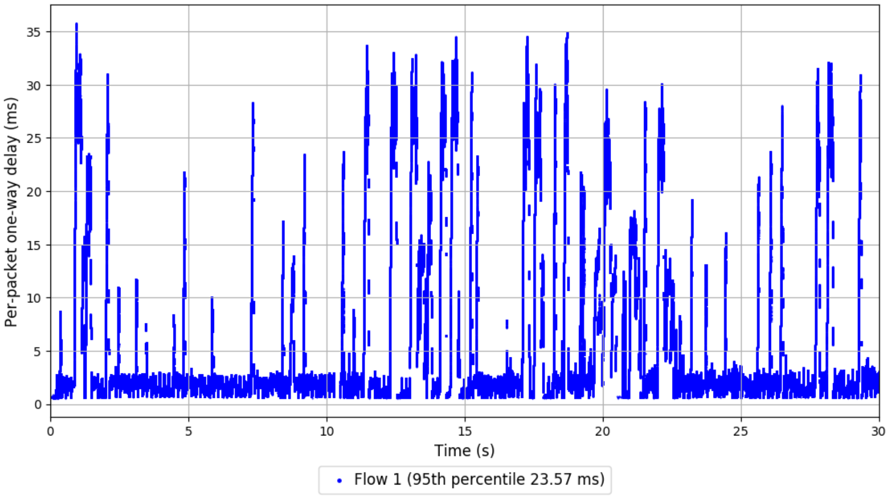




```
Run 3: Statistics of FillP-Sheep

Start at: 2019-10-02 18:50:20
End at: 2019-10-02 18:50:50
Local clock offset: 4.671 ms
Remote clock offset: -0.559 ms

# Below is generated by plot.py at 2019-10-02 20:40:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 828.19 Mbit/s
95th percentile per-packet one-way delay: 23.569 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 828.19 Mbit/s
95th percentile per-packet one-way delay: 23.569 ms
Loss rate: 3.93%
```

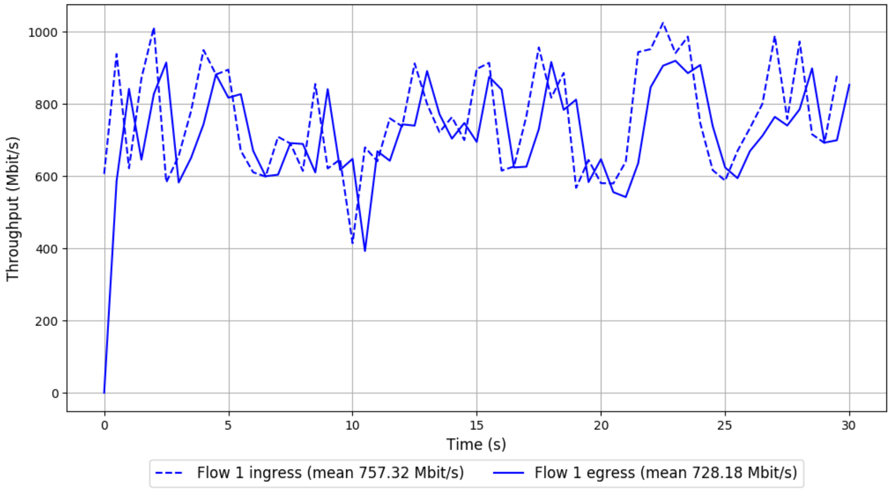
Run 3: Report of FillP-Sheep — Data Link

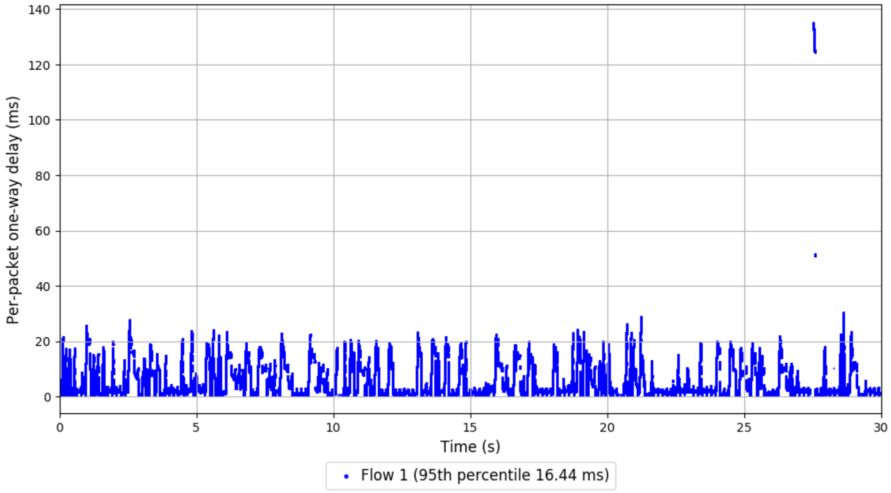




```
Run 4: Statistics of FillP-Sheep

Start at: 2019-10-02 19:23:55
End at: 2019-10-02 19:24:25
Local clock offset: 4.32 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 728.18 Mbit/s
95th percentile per-packet one-way delay: 16.439 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 728.18 Mbit/s
95th percentile per-packet one-way delay: 16.439 ms
Loss rate: 3.85%
```

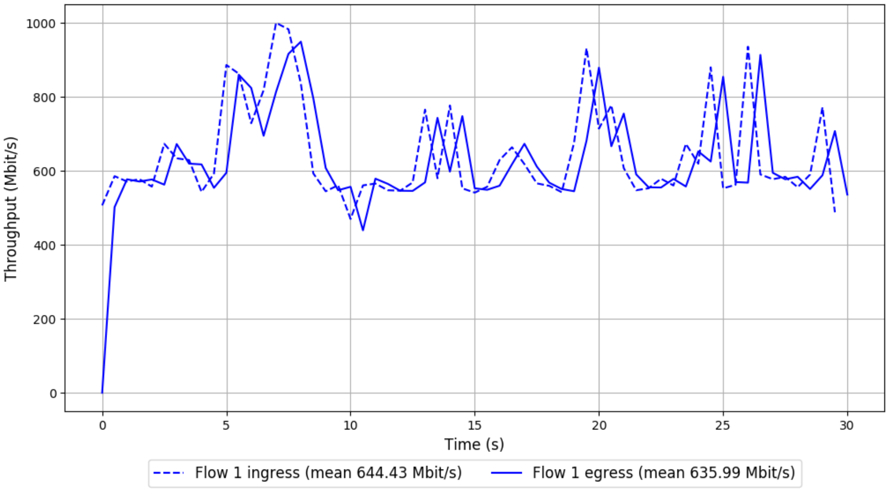
Run 4: Report of FillP-Sheep — Data Link

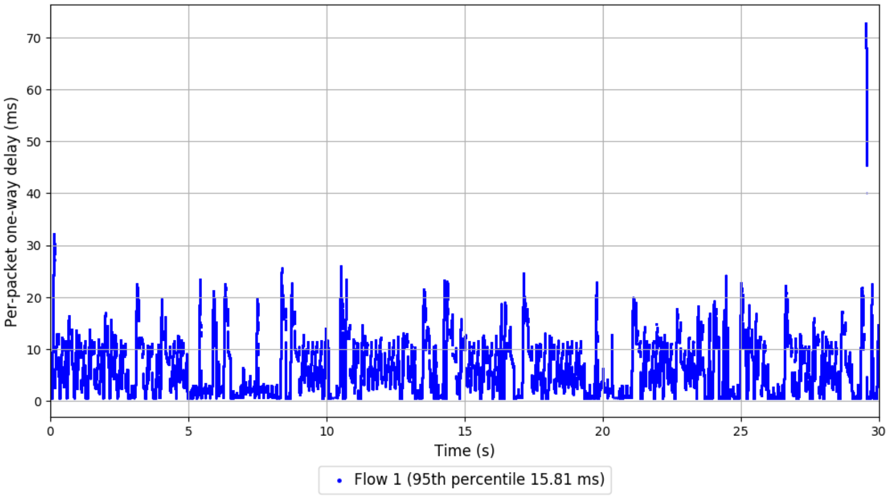




```
Run 5: Statistics of FillP-Sheep

Start at: 2019-10-02 19:57:28
End at: 2019-10-02 19:57:58
Local clock offset: 4.46 ms
Remote clock offset: -0.228 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 635.99 Mbit/s
95th percentile per-packet one-way delay: 15.808 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 635.99 Mbit/s
95th percentile per-packet one-way delay: 15.808 ms
Loss rate: 1.31%
```

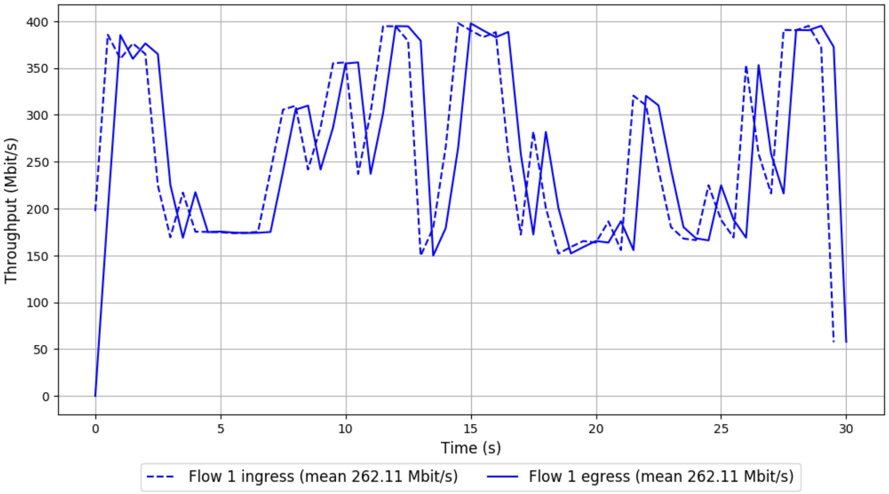
Run 5: Report of FillP-Sheep — Data Link

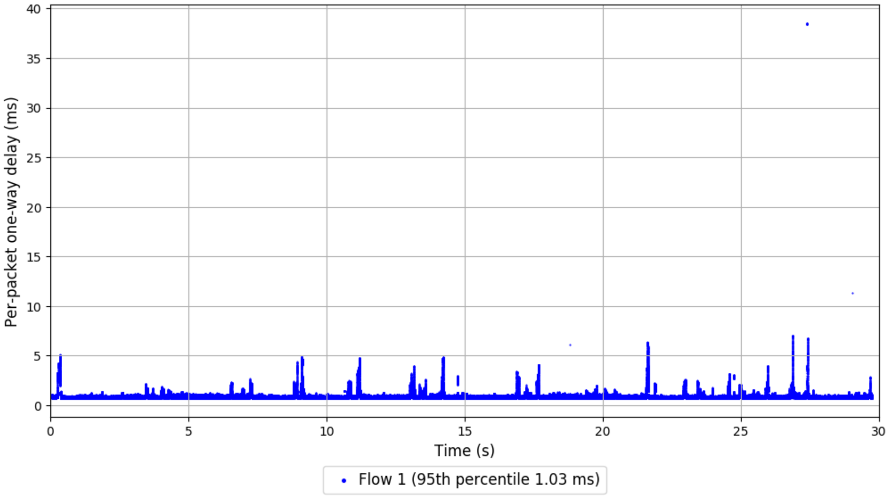




```
Run 1: Statistics of Indigo

Start at: 2019-10-02 17:31:07
End at: 2019-10-02 17:31:37
Local clock offset: 4.512 ms
Remote clock offset: 3.398 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 262.11 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 262.11 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.00%
```

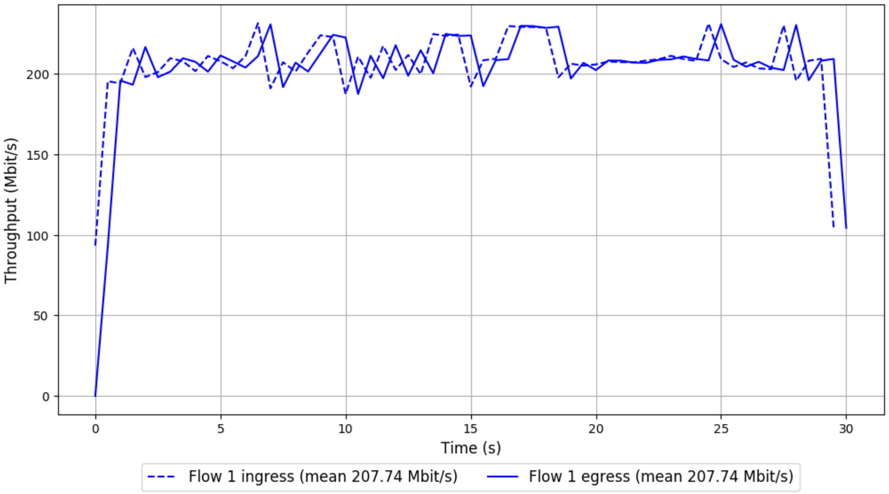
Run 1: Report of Indigo — Data Link

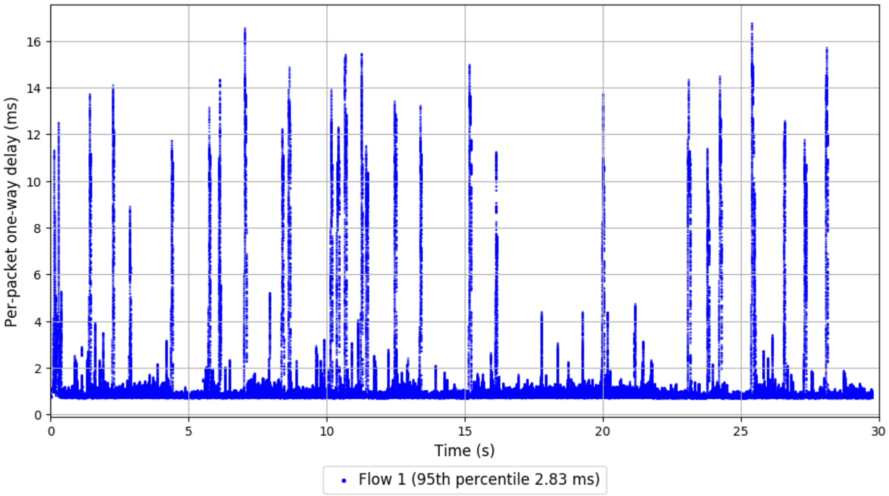




```
Run 2: Statistics of Indigo

Start at: 2019-10-02 18:03:41
End at: 2019-10-02 18:04:11
Local clock offset: 4.261 ms
Remote clock offset: 3.548 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.74 Mbit/s
95th percentile per-packet one-way delay: 2.834 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.74 Mbit/s
95th percentile per-packet one-way delay: 2.834 ms
Loss rate: 0.00%
```

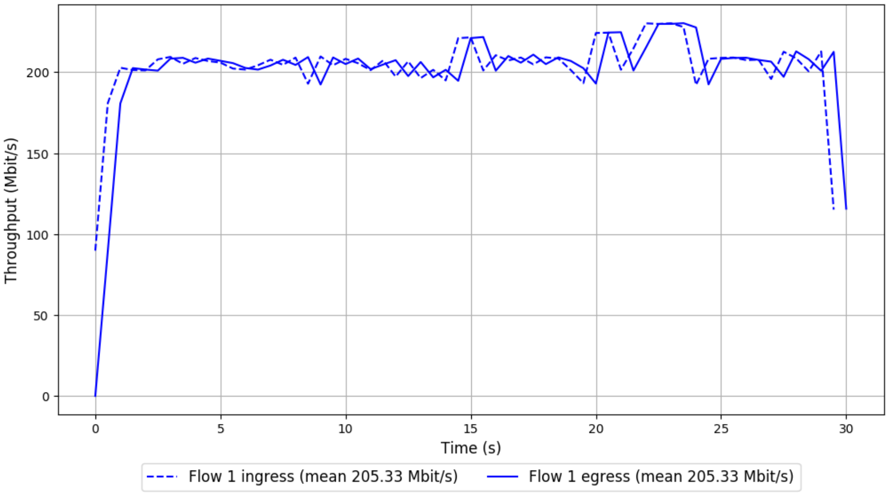
Run 2: Report of Indigo — Data Link

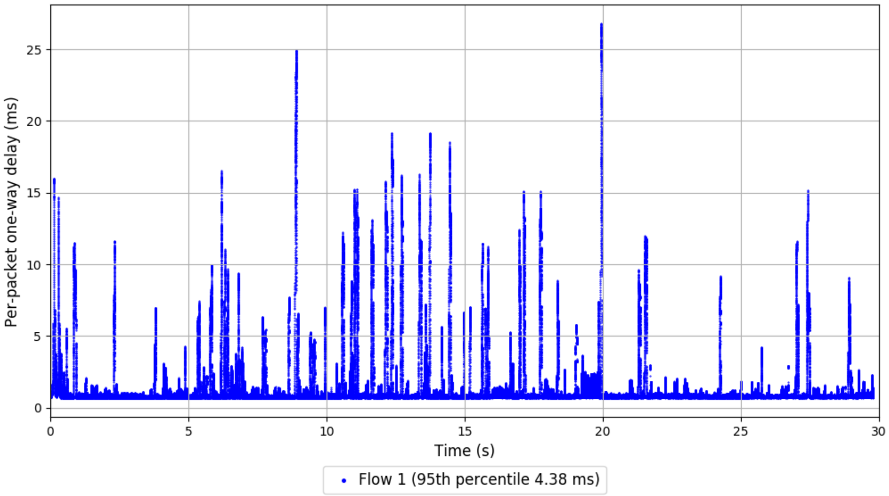




```
Run 3: Statistics of Indigo

Start at: 2019-10-02 18:36:37
End at: 2019-10-02 18:37:07
Local clock offset: 4.491 ms
Remote clock offset: -0.431 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.33 Mbit/s
95th percentile per-packet one-way delay: 4.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 205.33 Mbit/s
95th percentile per-packet one-way delay: 4.383 ms
Loss rate: 0.00%
```

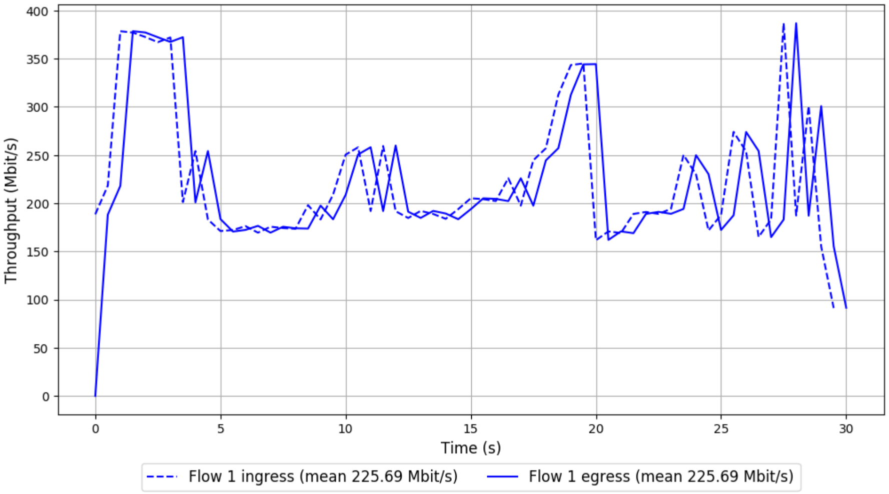
Run 3: Report of Indigo — Data Link

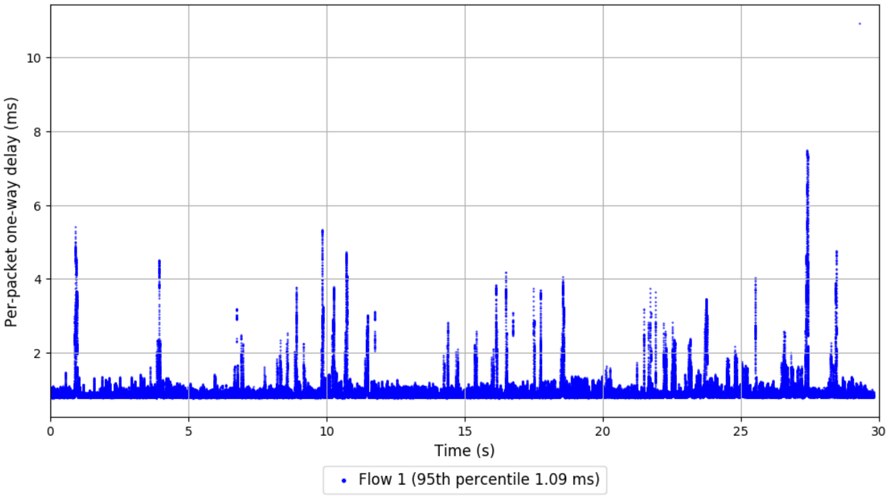




```
Run 4: Statistics of Indigo

Start at: 2019-10-02 19:10:35
End at: 2019-10-02 19:11:05
Local clock offset: 4.305 ms
Remote clock offset: -0.253 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.69 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.69 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.00%
```

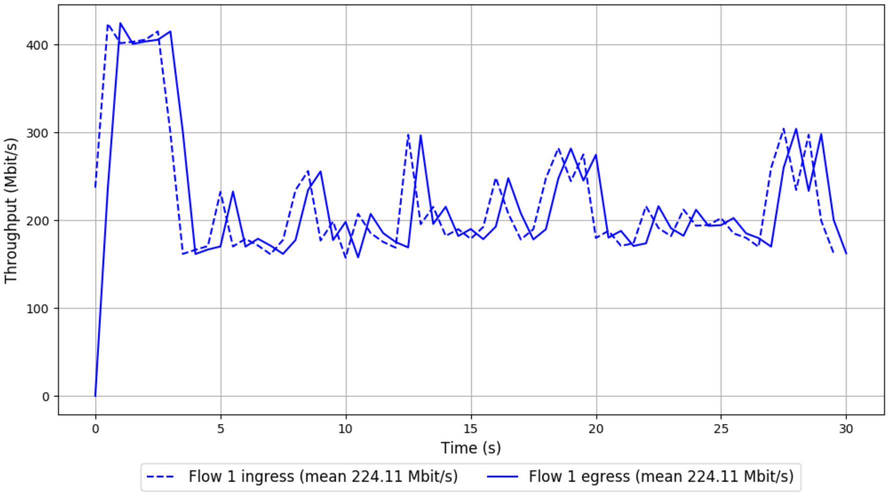
Run 4: Report of Indigo — Data Link

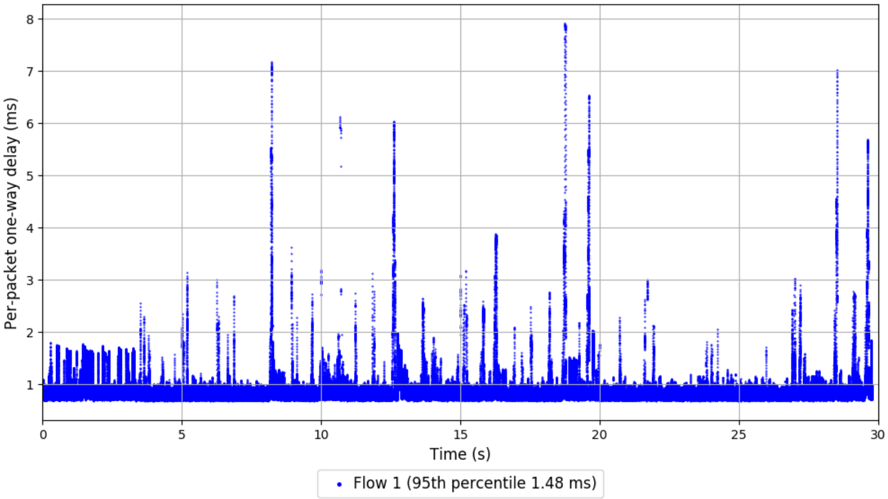




```
Run 5: Statistics of Indigo

Start at: 2019-10-02 19:43:57
End at: 2019-10-02 19:44:27
Local clock offset: 4.55 ms
Remote clock offset: -0.263 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.11 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.11 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.00%
```

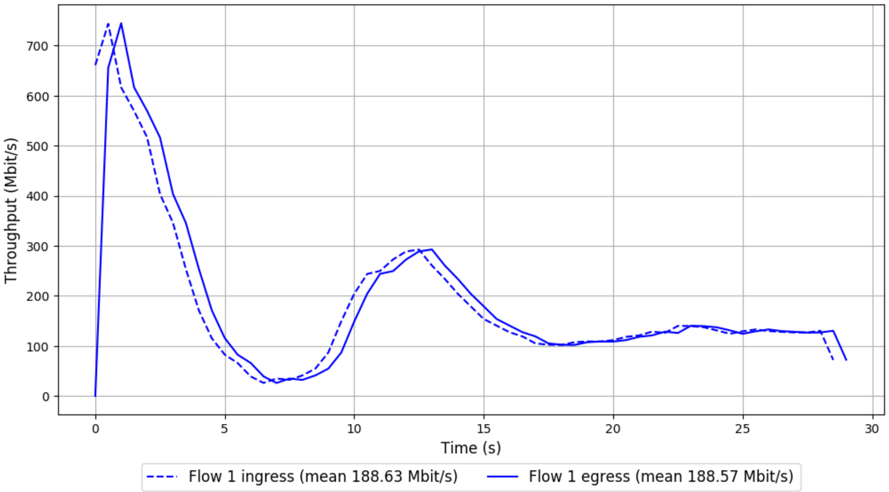
Run 5: Report of Indigo — Data Link

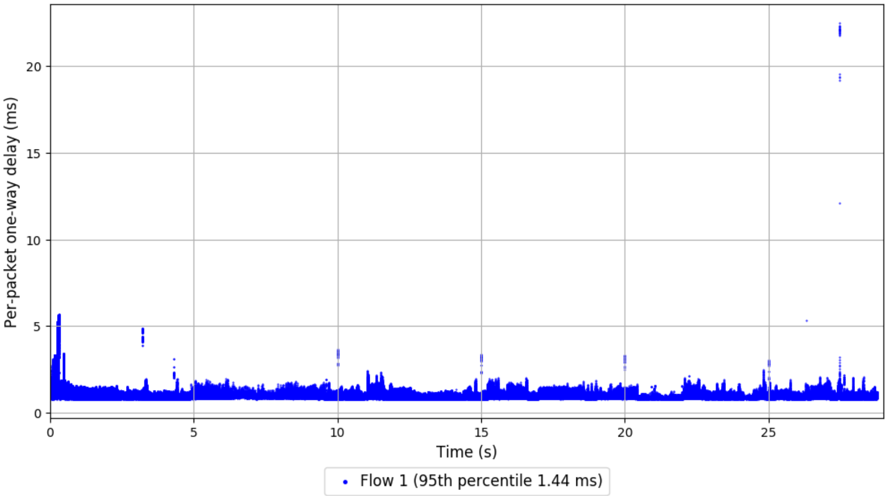




```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-10-02 17:51:10
End at: 2019-10-02 17:51:40
Local clock offset: 4.218 ms
Remote clock offset: 3.389 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.57 Mbit/s
95th percentile per-packet one-way delay: 1.441 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 188.57 Mbit/s
95th percentile per-packet one-way delay: 1.441 ms
Loss rate: 0.03%
```

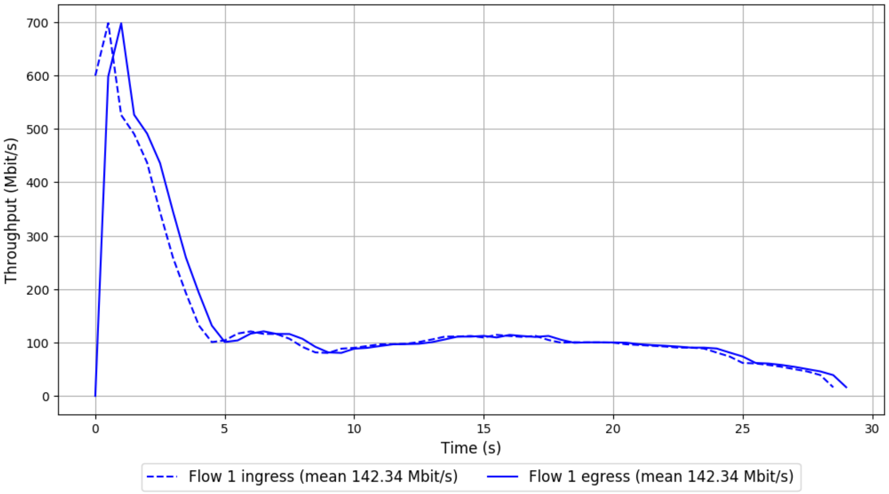
Run 1: Report of Indigo-MusesC3 — Data Link

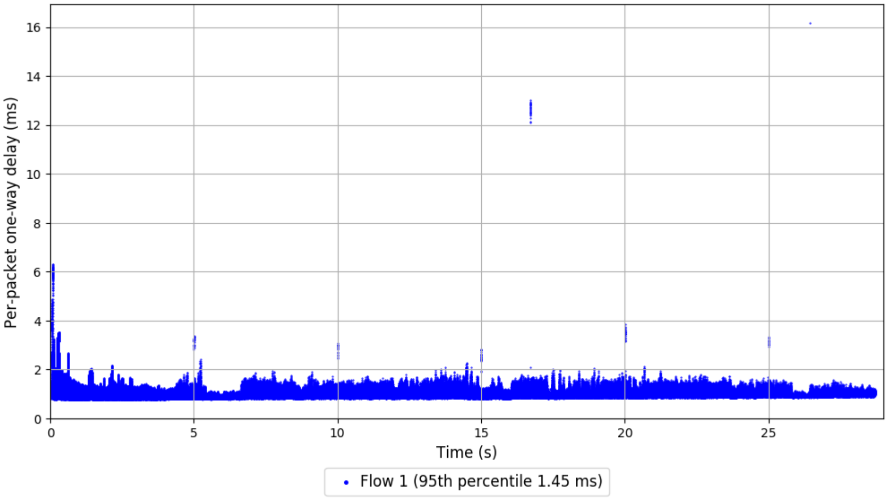




```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-10-02 18:23:38
End at: 2019-10-02 18:24:08
Local clock offset: 4.701 ms
Remote clock offset: 0.718 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 142.34 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.34 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.00%
```

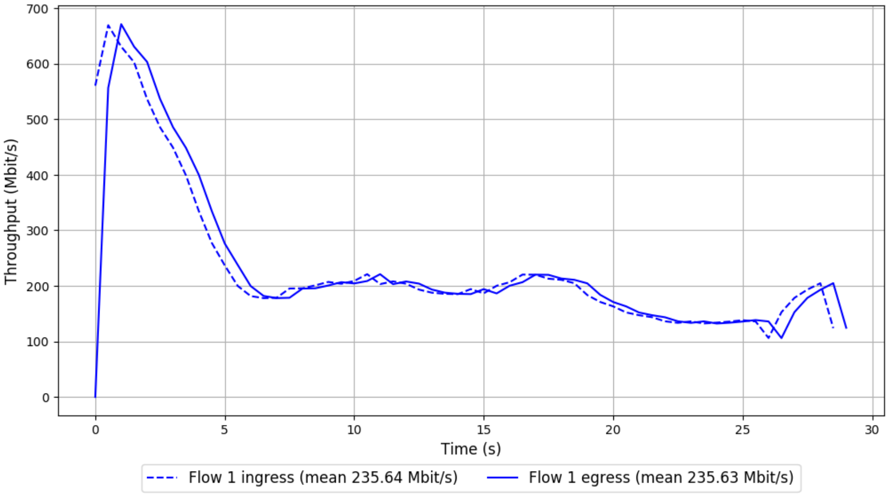
Run 2: Report of Indigo-MusesC3 — Data Link

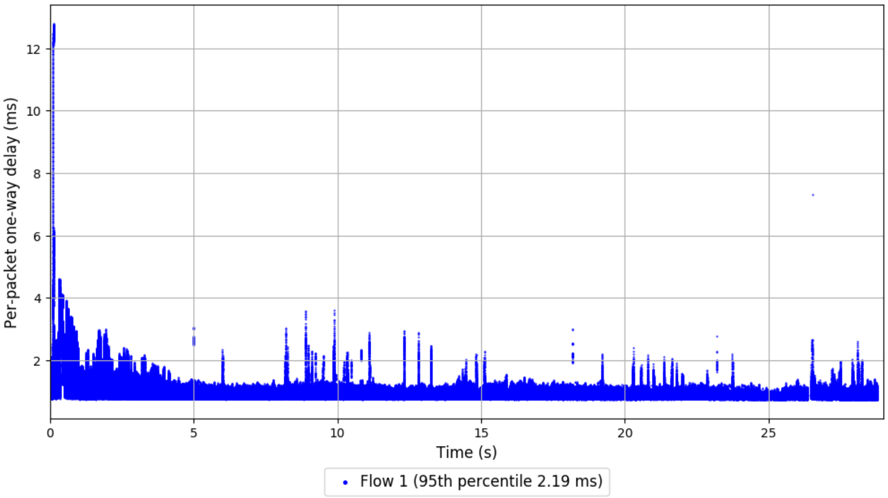




```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-10-02 18:57:14
End at: 2019-10-02 18:57:44
Local clock offset: 4.596 ms
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2019-10-02 20:46:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.63 Mbit/s
95th percentile per-packet one-way delay: 2.190 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.63 Mbit/s
95th percentile per-packet one-way delay: 2.190 ms
Loss rate: 0.00%
```

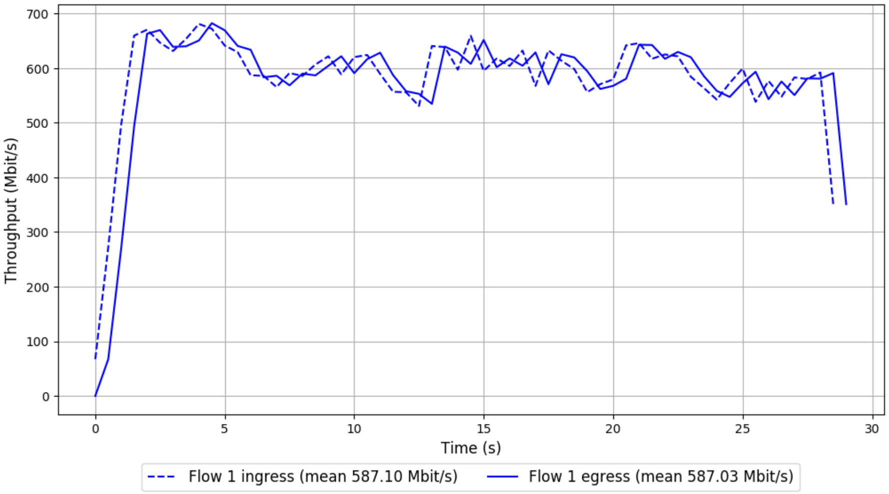
Run 3: Report of Indigo-MusesC3 — Data Link

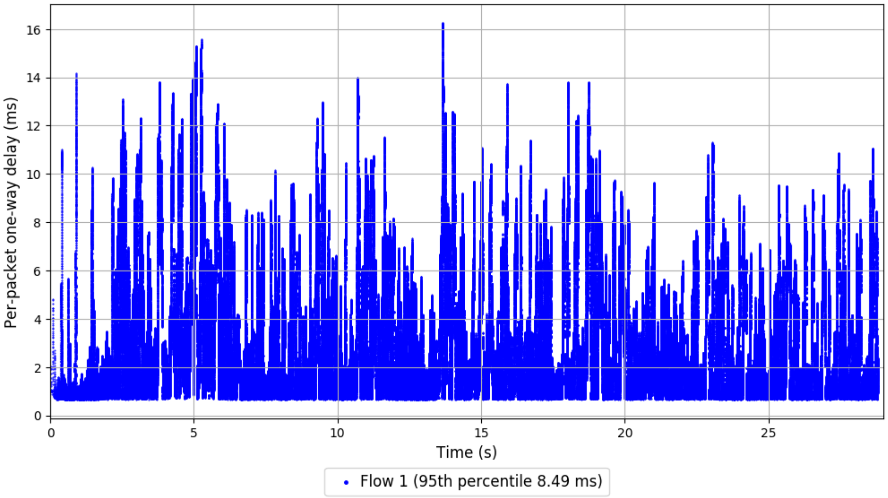




```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-10-02 19:30:27
End at: 2019-10-02 19:30:57
Local clock offset: 4.406 ms
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2019-10-02 20:46:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 587.03 Mbit/s
95th percentile per-packet one-way delay: 8.493 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 587.03 Mbit/s
95th percentile per-packet one-way delay: 8.493 ms
Loss rate: 0.01%
```

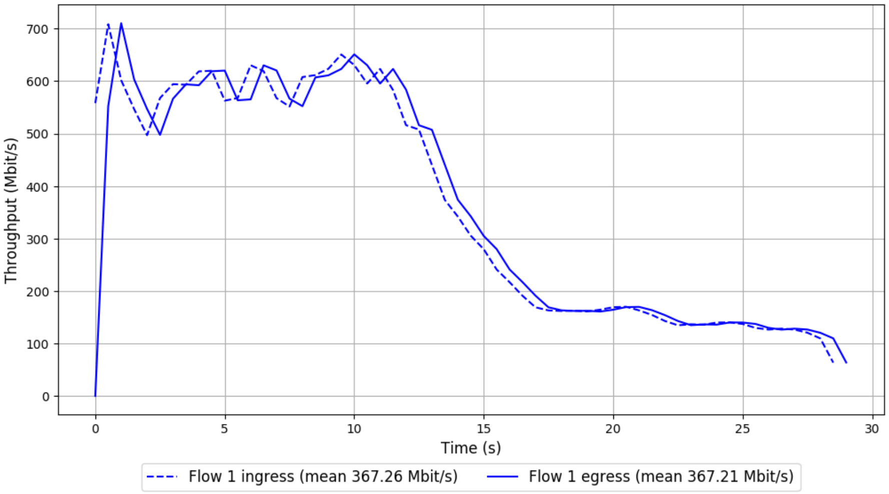
Run 4: Report of Indigo-MusesC3 — Data Link

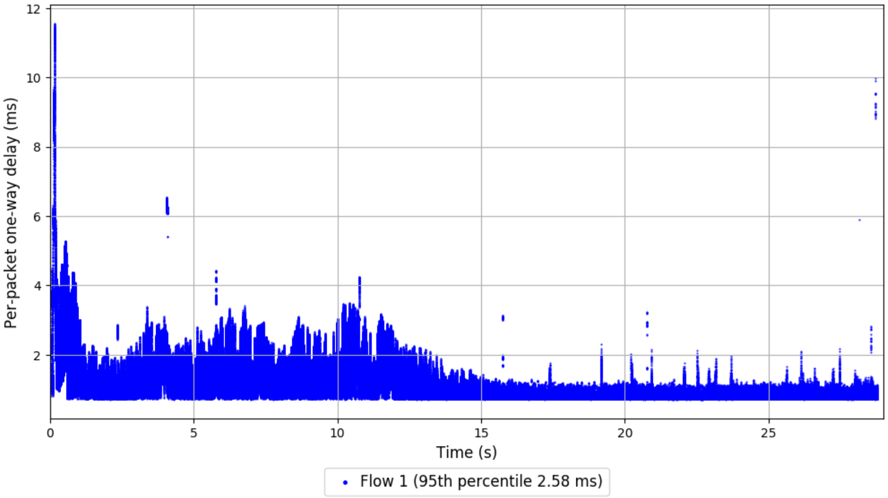




```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-10-02 20:04:05
End at: 2019-10-02 20:04:35
Local clock offset: 3.977 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2019-10-02 20:46:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 367.21 Mbit/s
95th percentile per-packet one-way delay: 2.576 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 367.21 Mbit/s
95th percentile per-packet one-way delay: 2.576 ms
Loss rate: 0.01%
```

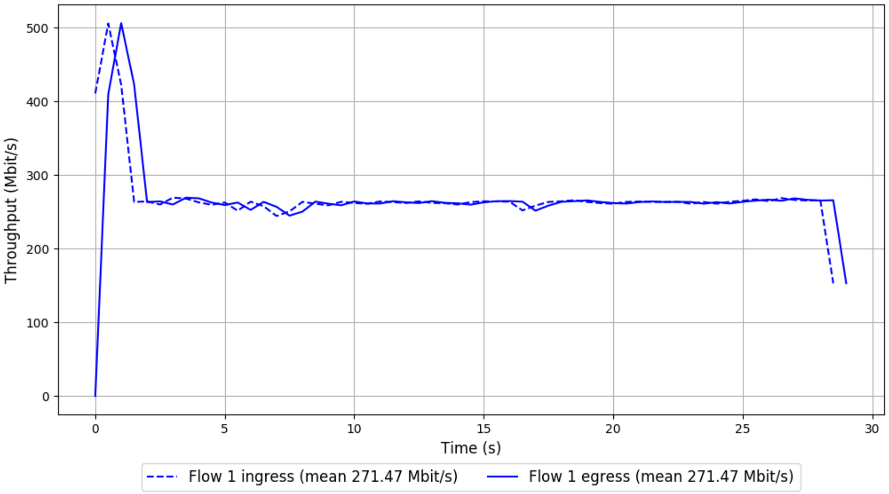
Run 5: Report of Indigo-MusesC3 — Data Link

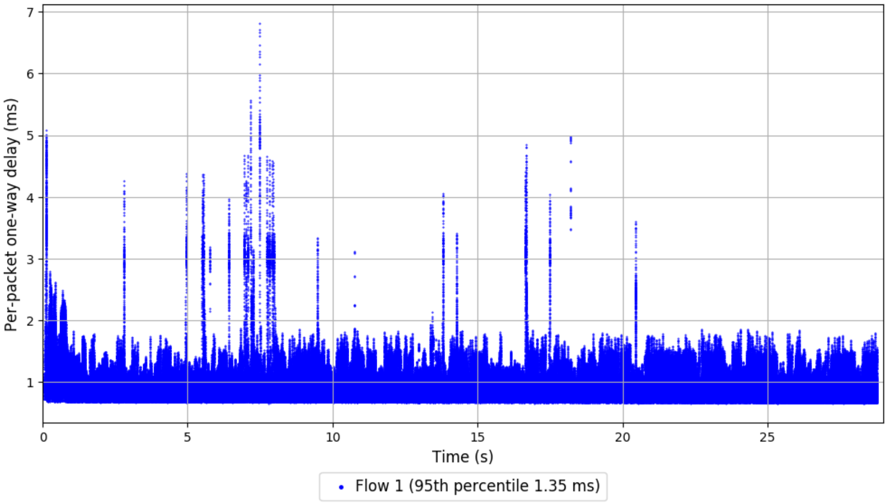




```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-10-02 17:55:21
End at: 2019-10-02 17:55:51
Local clock offset: 4.314 ms
Remote clock offset: 3.385 ms

# Below is generated by plot.py at 2019-10-02 20:46:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 1.349 ms
Loss rate: 0.00%
```

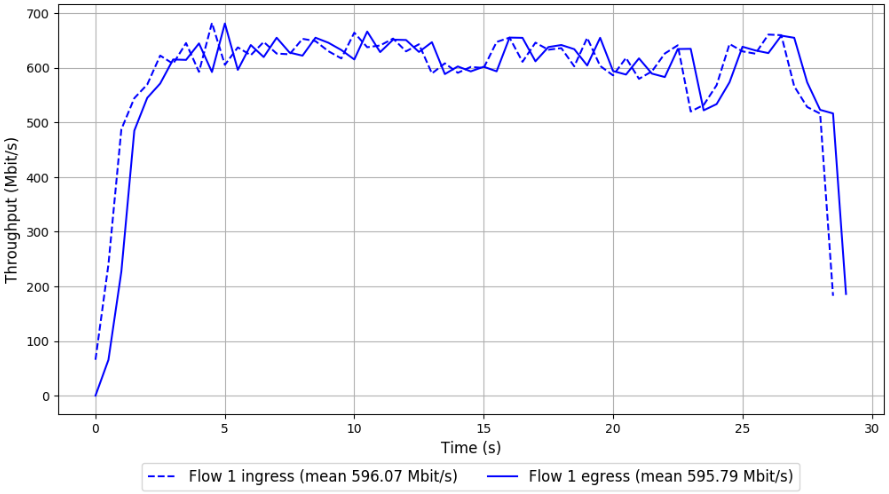
Run 1: Report of Indigo-MusesC5 — Data Link

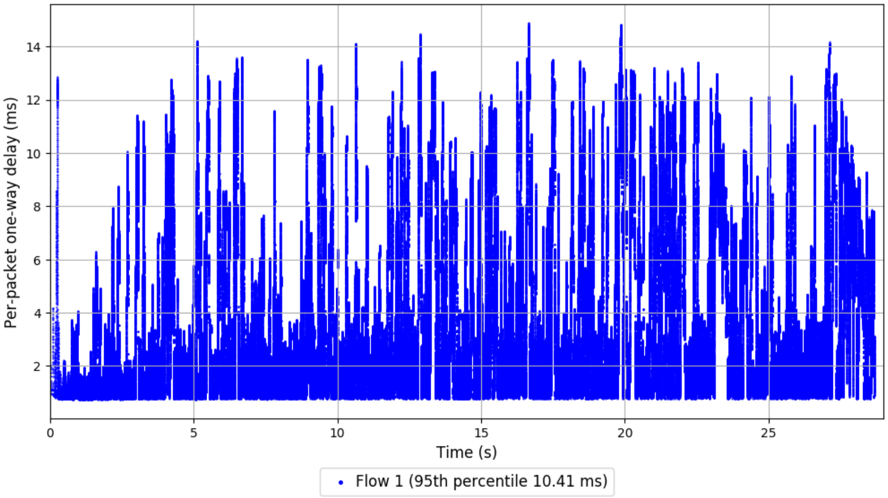




```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-10-02 18:27:46
End at: 2019-10-02 18:28:16
Local clock offset: 4.601 ms
Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2019-10-02 20:48:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 595.79 Mbit/s
95th percentile per-packet one-way delay: 10.412 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 595.79 Mbit/s
95th percentile per-packet one-way delay: 10.412 ms
Loss rate: 0.05%
```

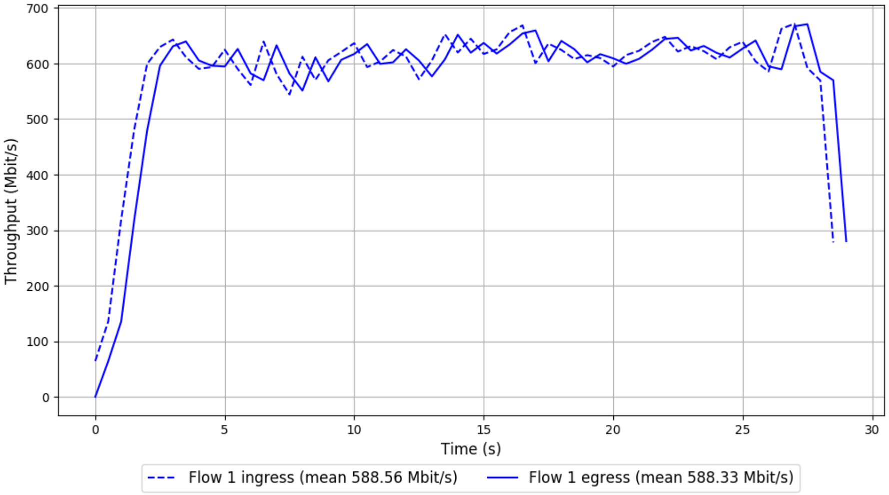
Run 2: Report of Indigo-MusesC5 — Data Link

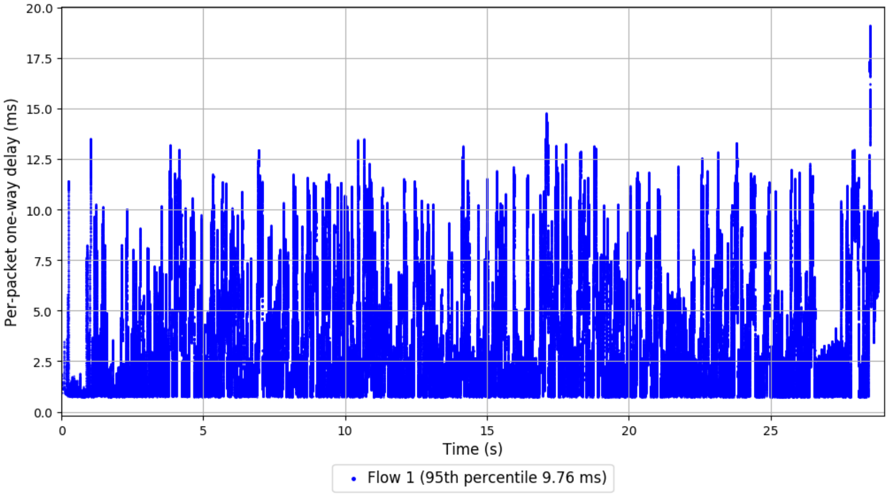




```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-10-02 19:01:32
End at: 2019-10-02 19:02:02
Local clock offset: 4.441 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2019-10-02 20:48:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 588.33 Mbit/s
95th percentile per-packet one-way delay: 9.758 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 588.33 Mbit/s
95th percentile per-packet one-way delay: 9.758 ms
Loss rate: 0.04%
```

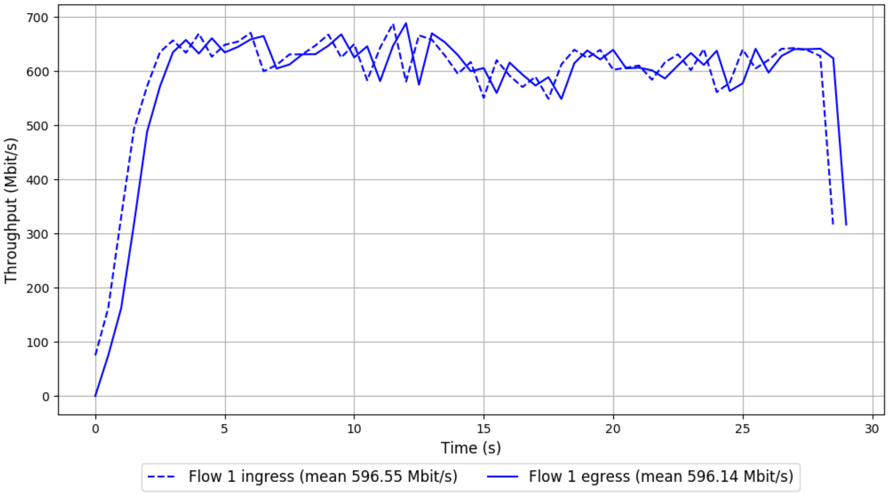
Run 3: Report of Indigo-MusesC5 — Data Link

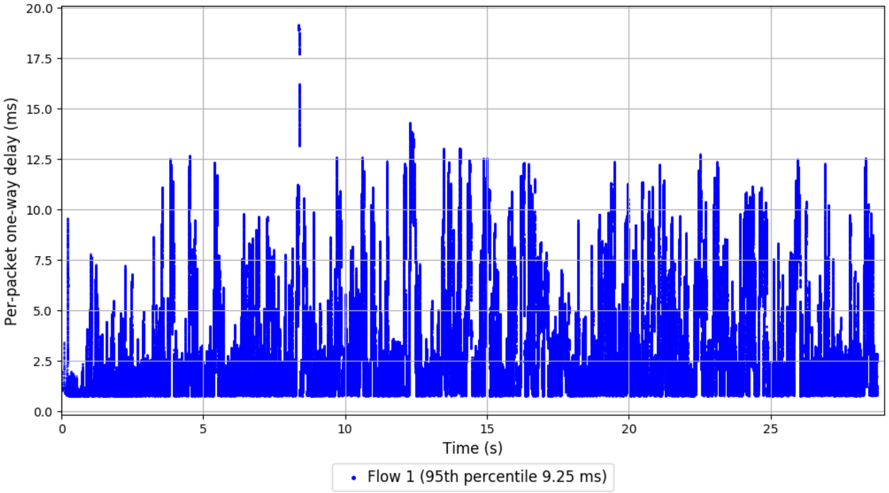




```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-10-02 19:34:52
End at: 2019-10-02 19:35:22
Local clock offset: 4.453 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2019-10-02 20:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 596.14 Mbit/s
95th percentile per-packet one-way delay: 9.248 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 596.14 Mbit/s
95th percentile per-packet one-way delay: 9.248 ms
Loss rate: 0.07%
```

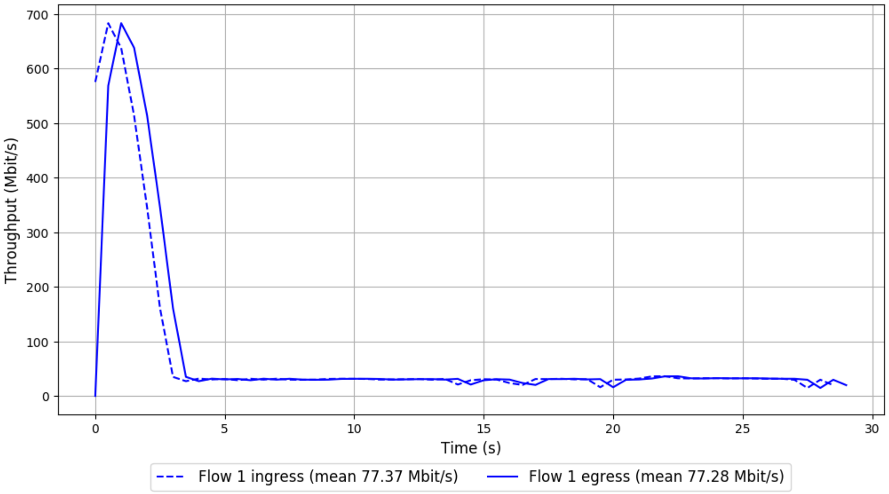
Run 4: Report of Indigo-MusesC5 — Data Link

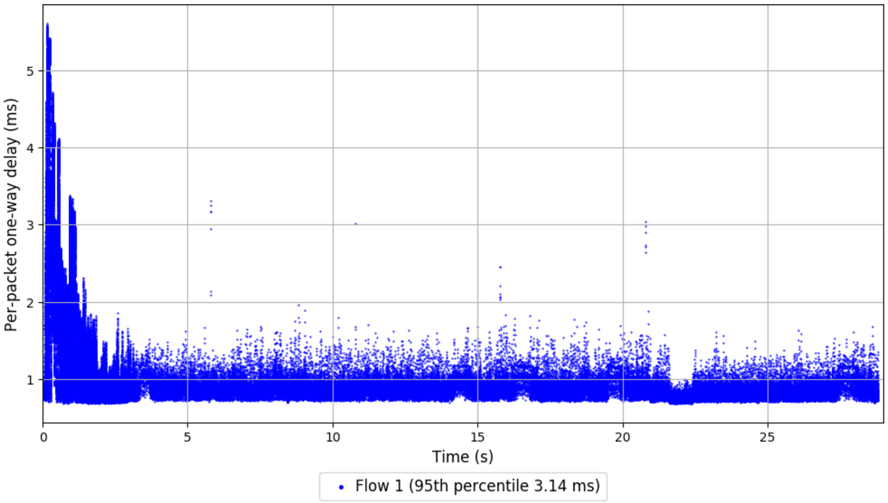




```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-10-02 20:08:17
End at: 2019-10-02 20:08:47
Local clock offset: 3.809 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2019-10-02 20:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.28 Mbit/s
95th percentile per-packet one-way delay: 3.144 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 77.28 Mbit/s
95th percentile per-packet one-way delay: 3.144 ms
Loss rate: 0.12%
```

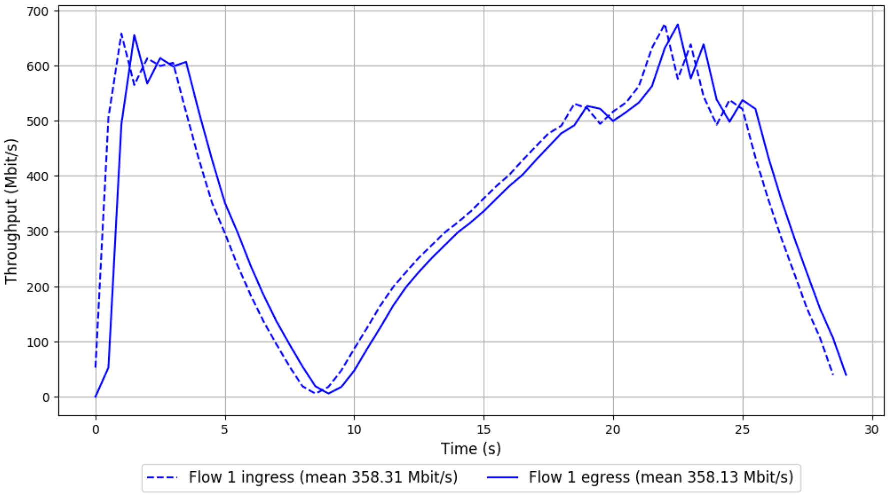
Run 5: Report of Indigo-MusesC5 — Data Link

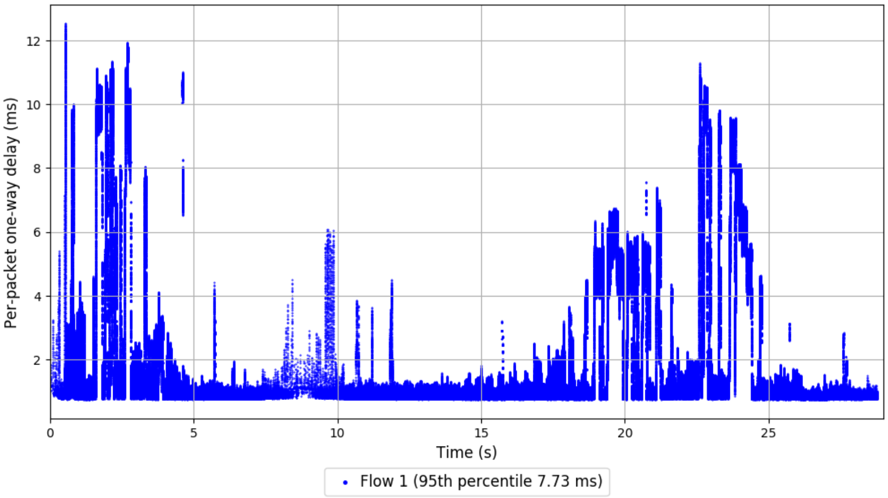




```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-10-02 17:56:42
End at: 2019-10-02 17:57:12
Local clock offset: 4.256 ms
Remote clock offset: 3.431 ms

# Below is generated by plot.py at 2019-10-02 20:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 358.13 Mbit/s
95th percentile per-packet one-way delay: 7.726 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 358.13 Mbit/s
95th percentile per-packet one-way delay: 7.726 ms
Loss rate: 0.05%
```

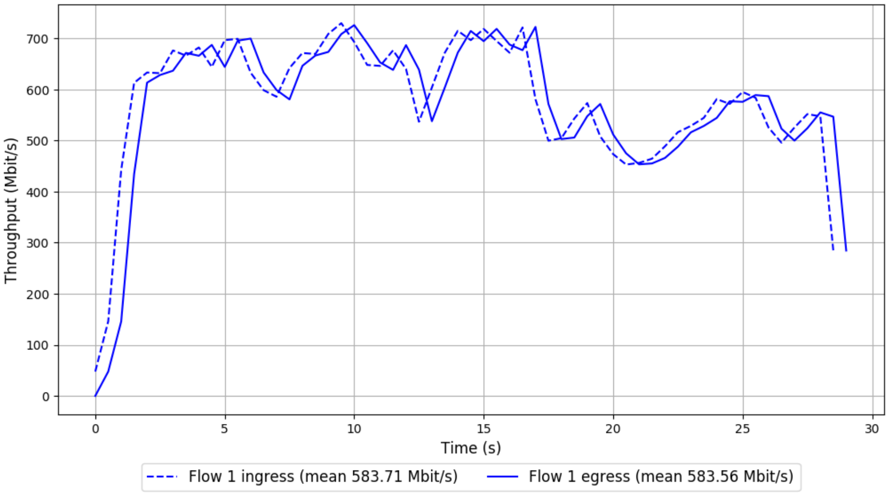
Run 1: Report of Indigo-MusesD — Data Link

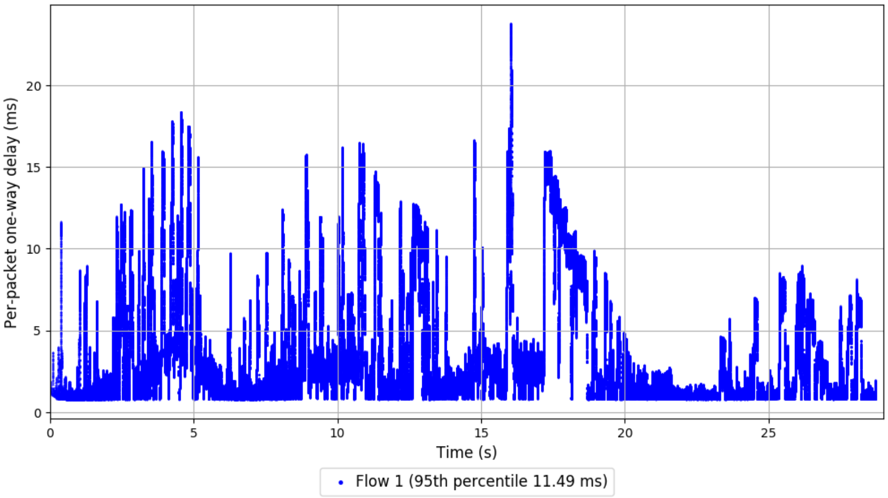




```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-10-02 18:29:18
End at: 2019-10-02 18:29:48
Local clock offset: 4.557 ms
Remote clock offset: 0.107 ms

# Below is generated by plot.py at 2019-10-02 20:51:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 583.56 Mbit/s
95th percentile per-packet one-way delay: 11.490 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 583.56 Mbit/s
95th percentile per-packet one-way delay: 11.490 ms
Loss rate: 0.03%
```

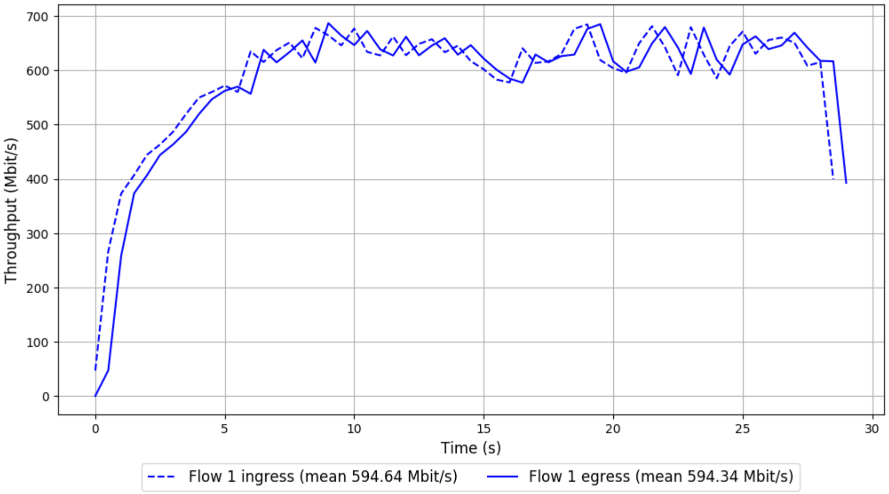
Run 2: Report of Indigo-MusesD — Data Link

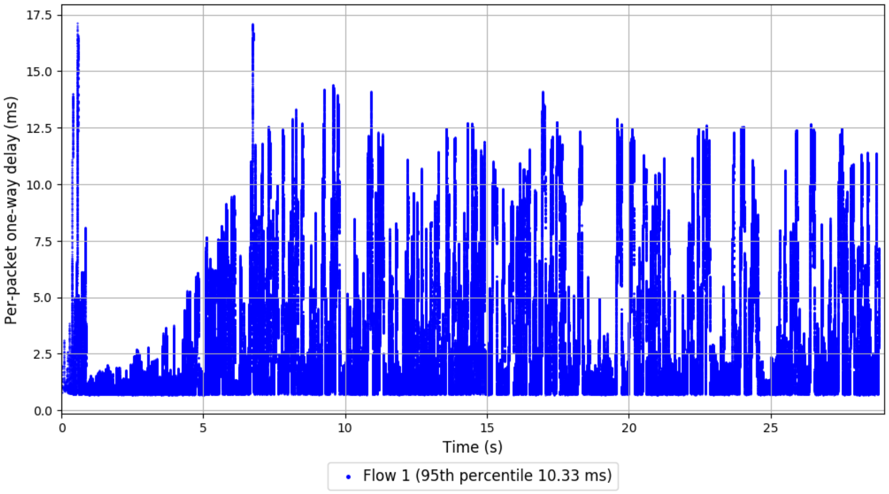




```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-10-02 19:03:03
End at: 2019-10-02 19:03:34
Local clock offset: 4.402 ms
Remote clock offset: -0.285 ms

# Below is generated by plot.py at 2019-10-02 20:52:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 594.34 Mbit/s
95th percentile per-packet one-way delay: 10.332 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 594.34 Mbit/s
95th percentile per-packet one-way delay: 10.332 ms
Loss rate: 0.05%
```

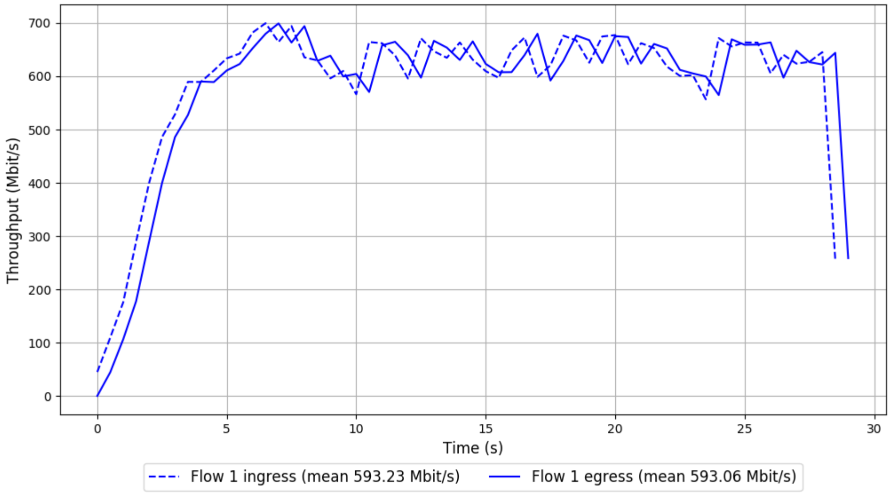
Run 3: Report of Indigo-MusesD — Data Link

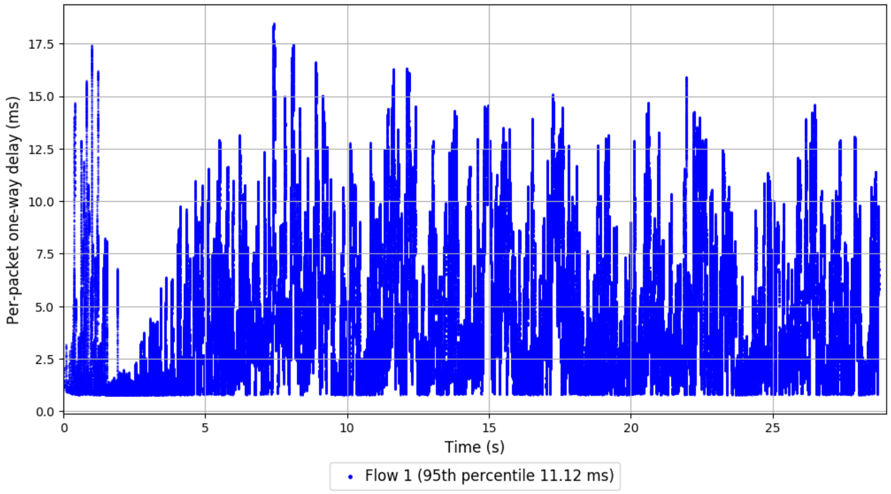




```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-10-02 19:36:24
End at: 2019-10-02 19:36:54
Local clock offset: 4.479 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2019-10-02 20:52:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 593.06 Mbit/s
95th percentile per-packet one-way delay: 11.118 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 593.06 Mbit/s
95th percentile per-packet one-way delay: 11.118 ms
Loss rate: 0.02%
```

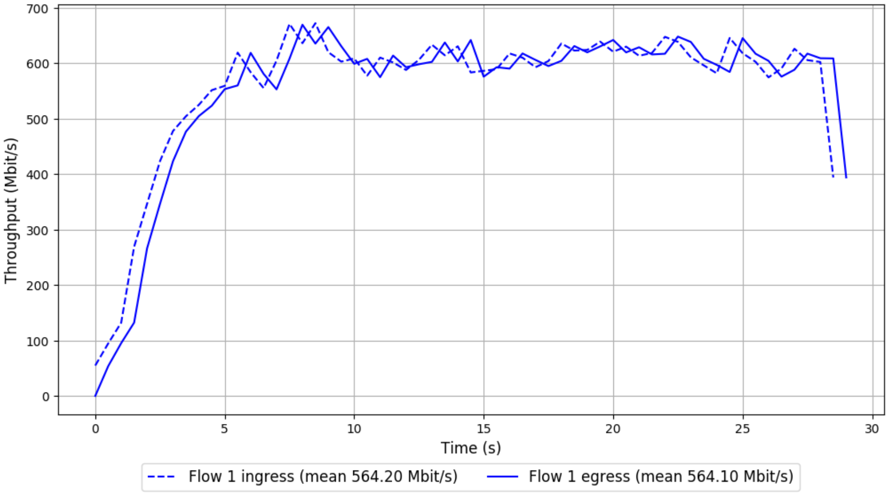
Run 4: Report of Indigo-MusesD — Data Link

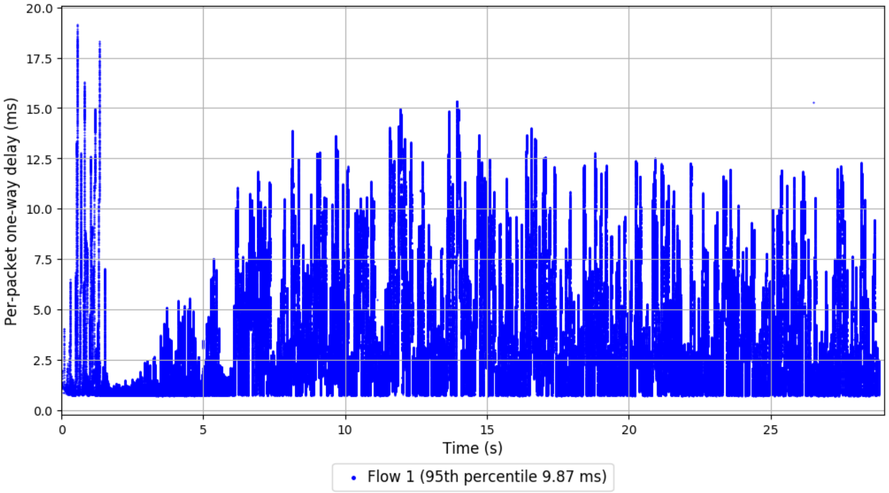




```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-10-02 20:09:33
End at: 2019-10-02 20:10:03
Local clock offset: 3.766 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-10-02 20:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.10 Mbit/s
95th percentile per-packet one-way delay: 9.871 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 564.10 Mbit/s
95th percentile per-packet one-way delay: 9.871 ms
Loss rate: 0.02%
```

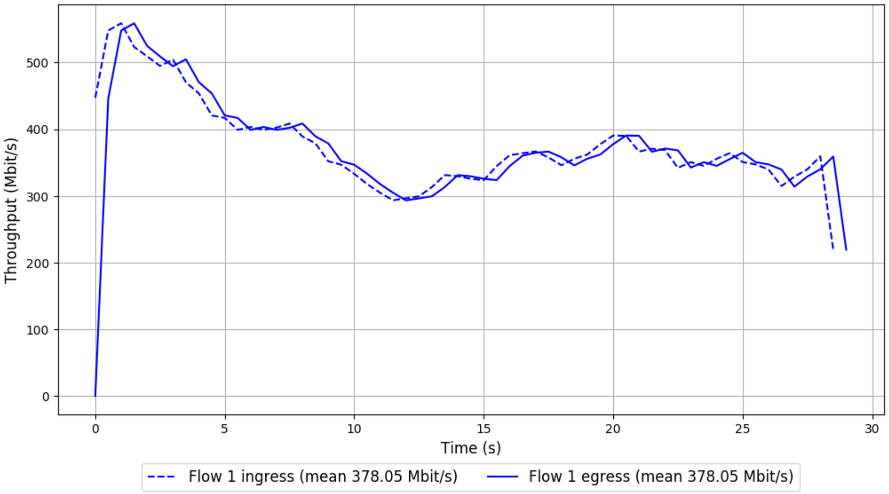
Run 5: Report of Indigo-MusesD — Data Link

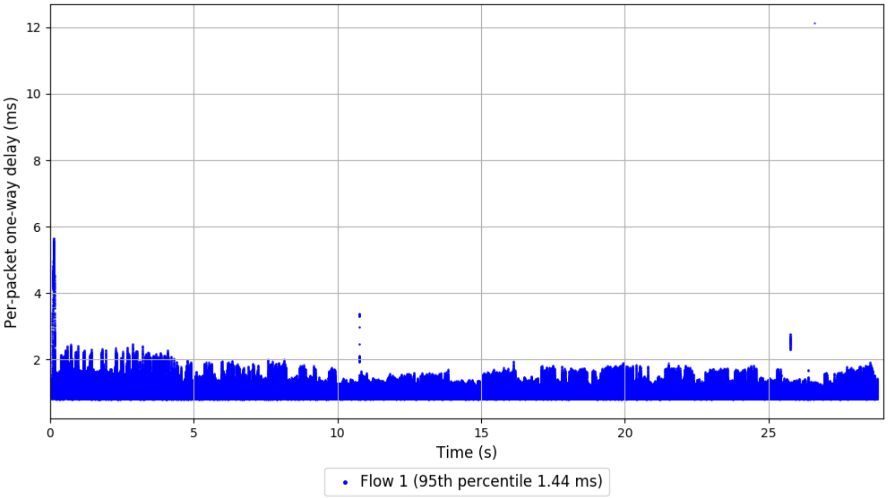




```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-10-02 17:53:56
End at: 2019-10-02 17:54:26
Local clock offset: 4.269 ms
Remote clock offset: 3.4 ms

# Below is generated by plot.py at 2019-10-02 20:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 378.05 Mbit/s
95th percentile per-packet one-way delay: 1.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 378.05 Mbit/s
95th percentile per-packet one-way delay: 1.444 ms
Loss rate: 0.00%
```

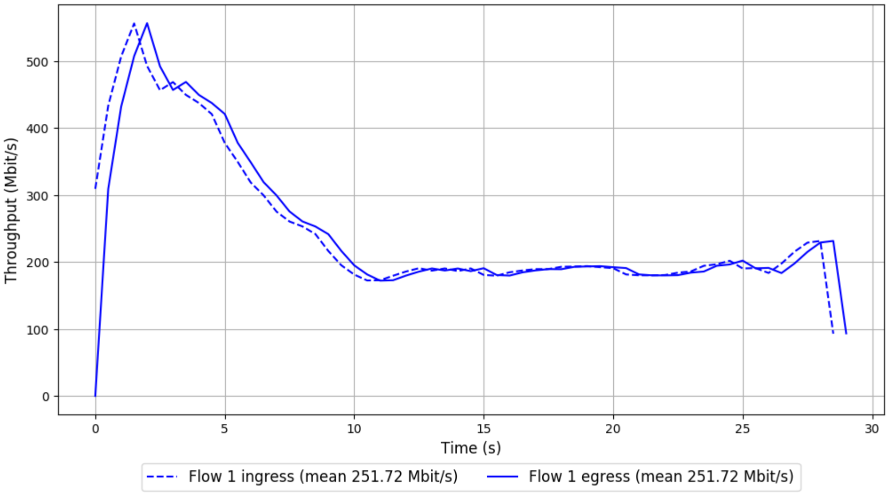
Run 1: Report of Indigo-MusesT — Data Link

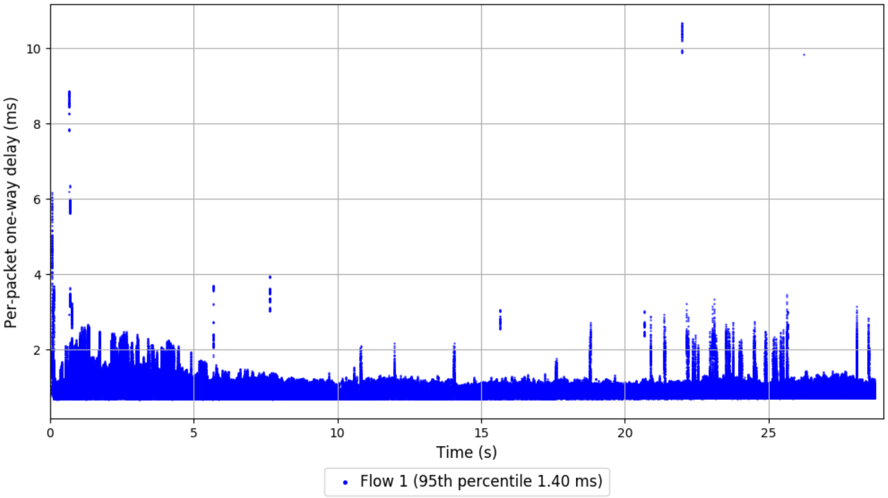




```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-10-02 18:26:24
End at: 2019-10-02 18:26:54
Local clock offset: 4.65 ms
Remote clock offset: 0.307 ms

# Below is generated by plot.py at 2019-10-02 20:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.72 Mbit/s
95th percentile per-packet one-way delay: 1.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.72 Mbit/s
95th percentile per-packet one-way delay: 1.401 ms
Loss rate: 0.00%
```

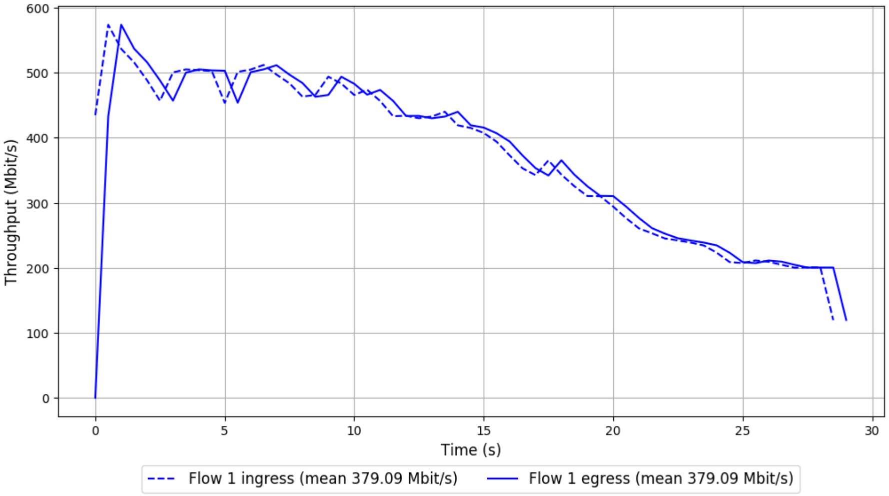
Run 2: Report of Indigo-MusesT — Data Link

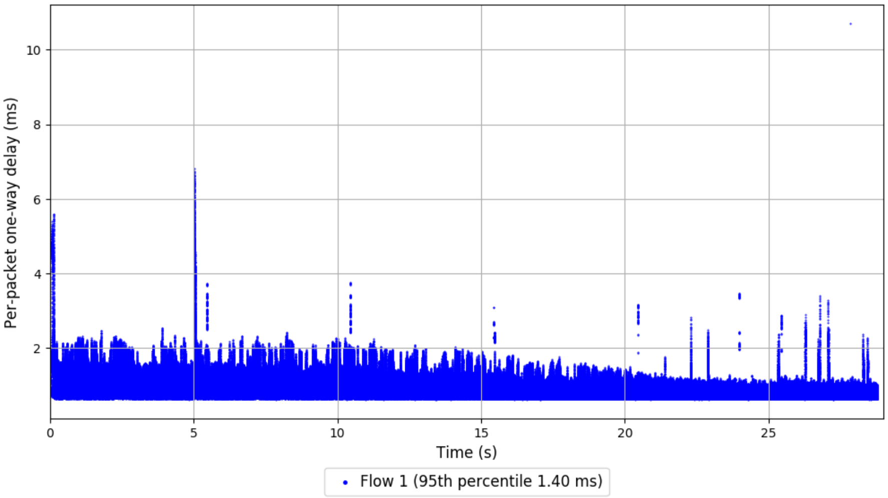




```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-10-02 19:00:06
End at: 2019-10-02 19:00:37
Local clock offset: 4.485 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2019-10-02 20:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 379.09 Mbit/s
95th percentile per-packet one-way delay: 1.398 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 379.09 Mbit/s
95th percentile per-packet one-way delay: 1.398 ms
Loss rate: 0.00%
```

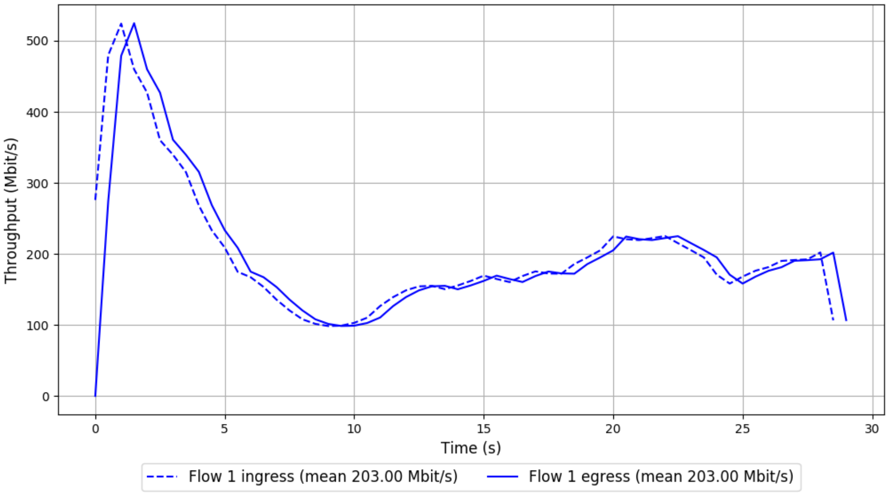
Run 3: Report of Indigo-MusesT — Data Link

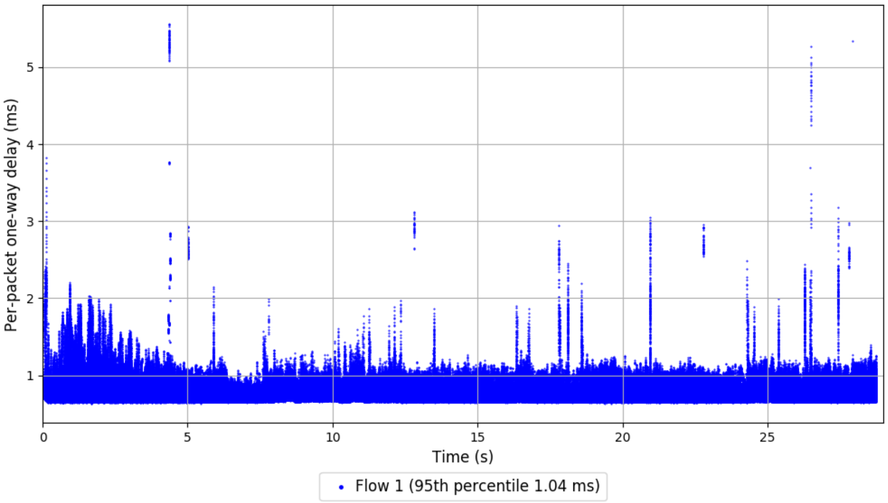




```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-10-02 19:33:32
End at: 2019-10-02 19:34:02
Local clock offset: 4.435 ms
Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2019-10-02 20:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.00 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.00 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%
```

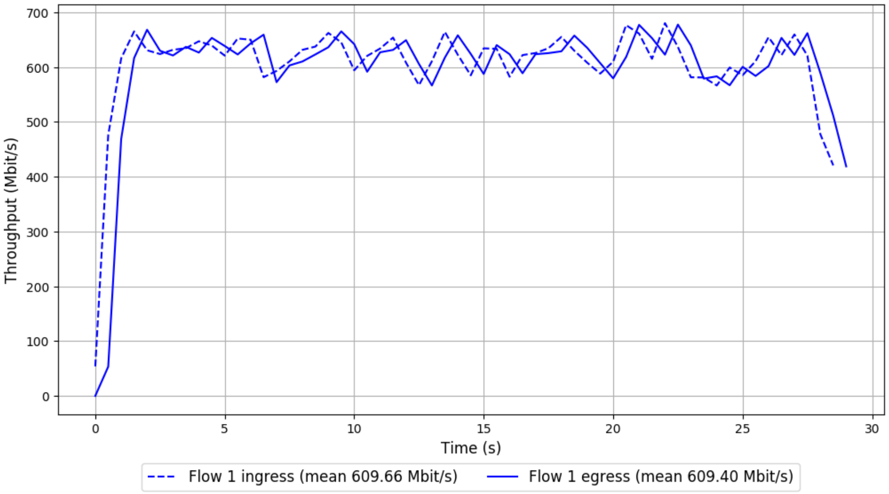
Run 4: Report of Indigo-MusesT — Data Link

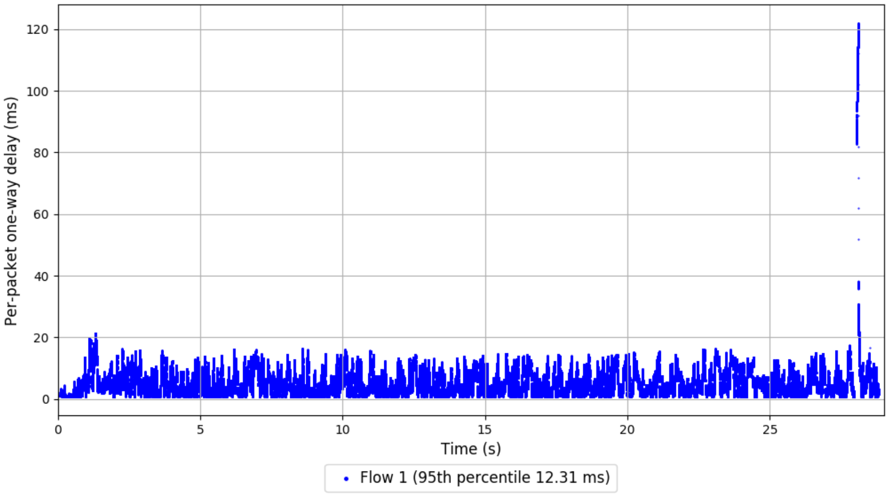




```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-10-02 20:06:44
End at: 2019-10-02 20:07:15
Local clock offset: 3.864 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2019-10-02 20:58:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 609.40 Mbit/s
95th percentile per-packet one-way delay: 12.312 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 609.40 Mbit/s
95th percentile per-packet one-way delay: 12.312 ms
Loss rate: 0.04%
```

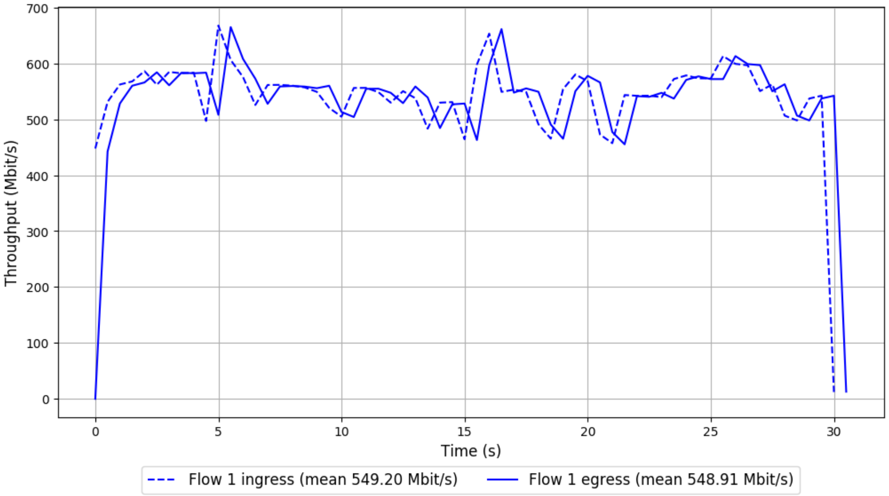
Run 5: Report of Indigo-MusesT — Data Link

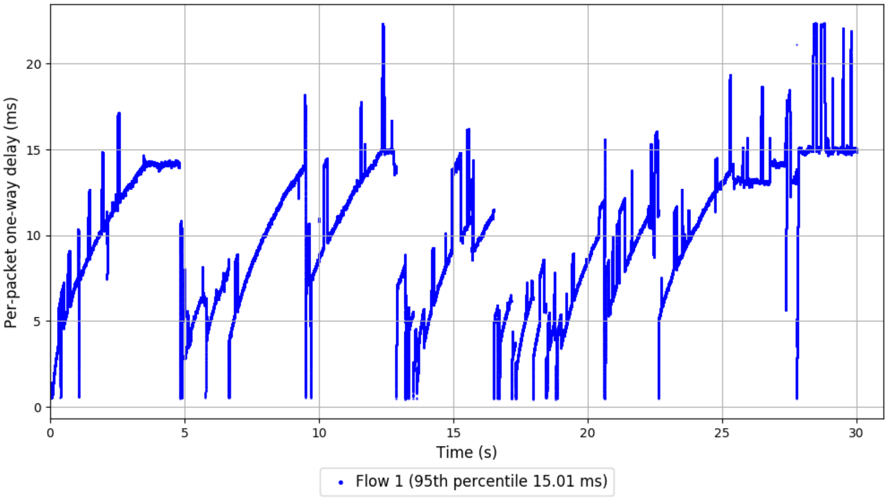




```
Run 1: Statistics of LEDBAT

Start at: 2019-10-02 17:29:30
End at: 2019-10-02 17:30:00
Local clock offset: 4.793 ms
Remote clock offset: 3.279 ms

# Below is generated by plot.py at 2019-10-02 20:58:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 548.91 Mbit/s
95th percentile per-packet one-way delay: 15.011 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 548.91 Mbit/s
95th percentile per-packet one-way delay: 15.011 ms
Loss rate: 0.05%
```

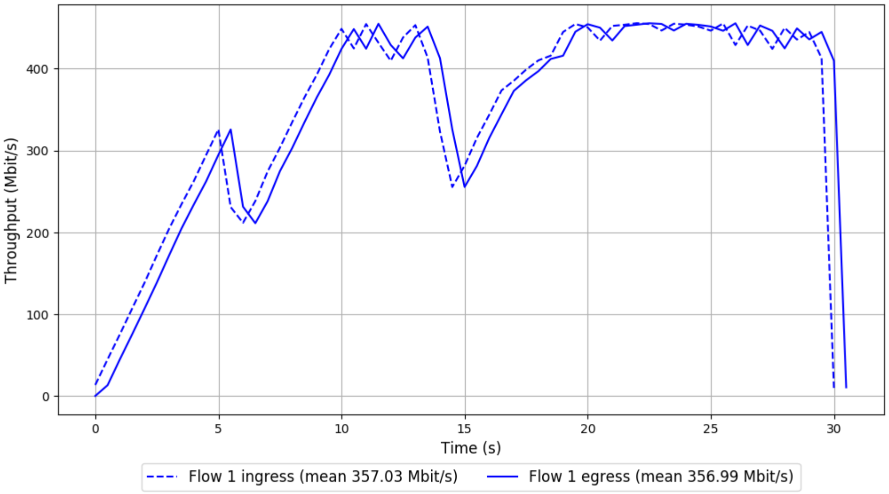
Run 1: Report of LEDBAT — Data Link

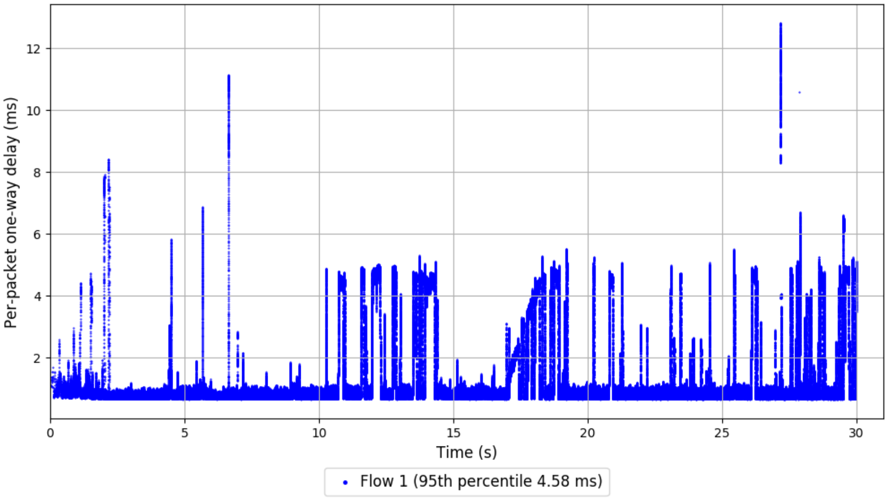




```
Run 2: Statistics of LEDBAT

Start at: 2019-10-02 18:02:12
End at: 2019-10-02 18:02:42
Local clock offset: 4.274 ms
Remote clock offset: 3.478 ms

# Below is generated by plot.py at 2019-10-02 20:58:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.99 Mbit/s
95th percentile per-packet one-way delay: 4.582 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 356.99 Mbit/s
95th percentile per-packet one-way delay: 4.582 ms
Loss rate: 0.01%
```

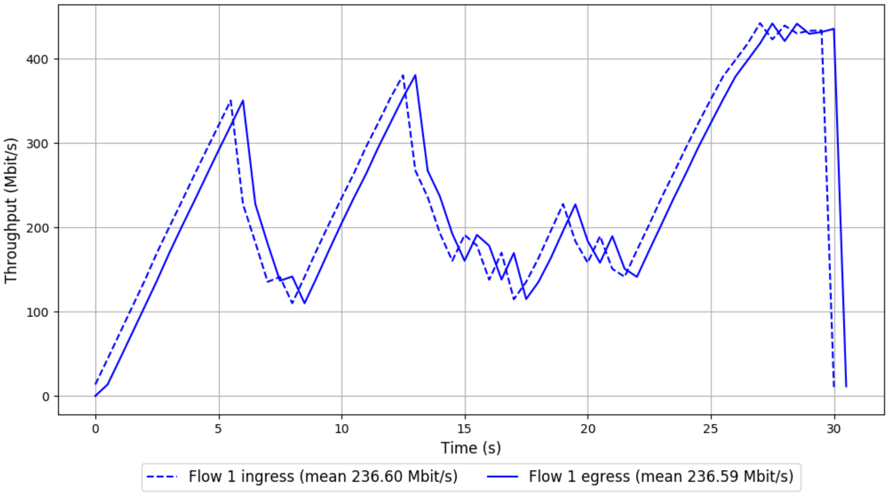
Run 2: Report of LEDBAT — Data Link

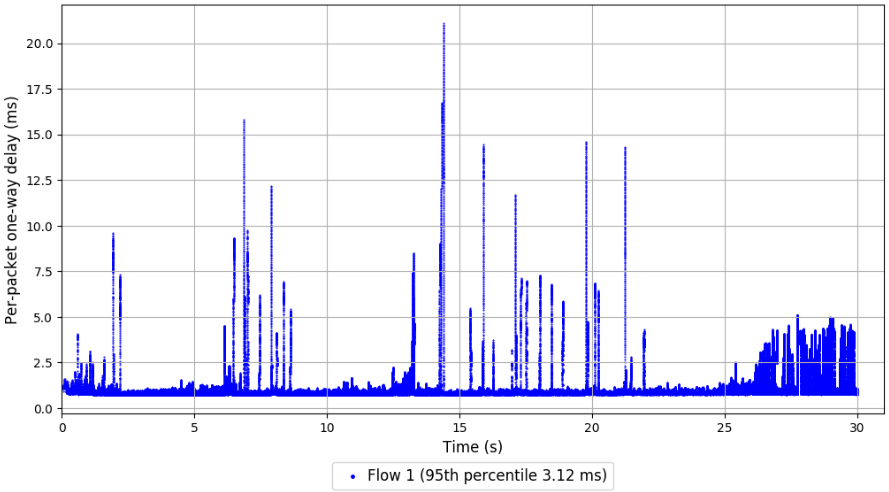




```
Run 3: Statistics of LEDBAT

Start at: 2019-10-02 18:35:14
End at: 2019-10-02 18:35:44
Local clock offset: 4.502 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2019-10-02 20:58:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.59 Mbit/s
95th percentile per-packet one-way delay: 3.123 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.59 Mbit/s
95th percentile per-packet one-way delay: 3.123 ms
Loss rate: 0.00%
```

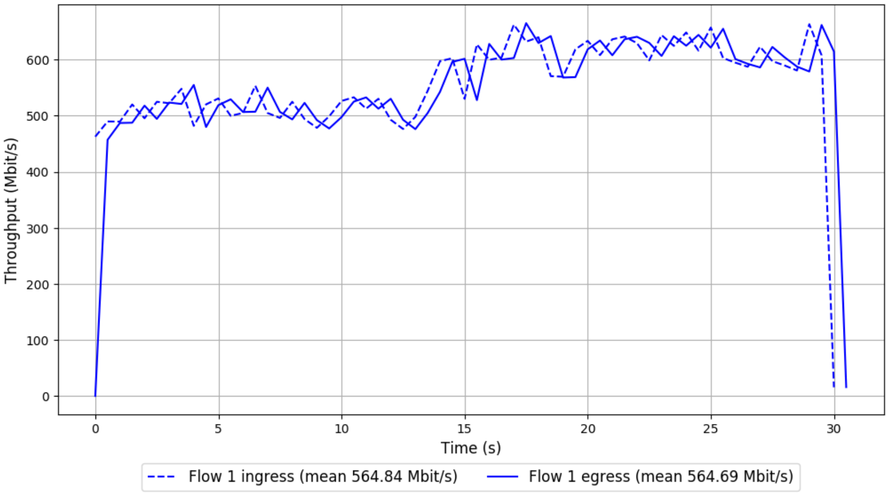
Run 3: Report of LEDBAT — Data Link

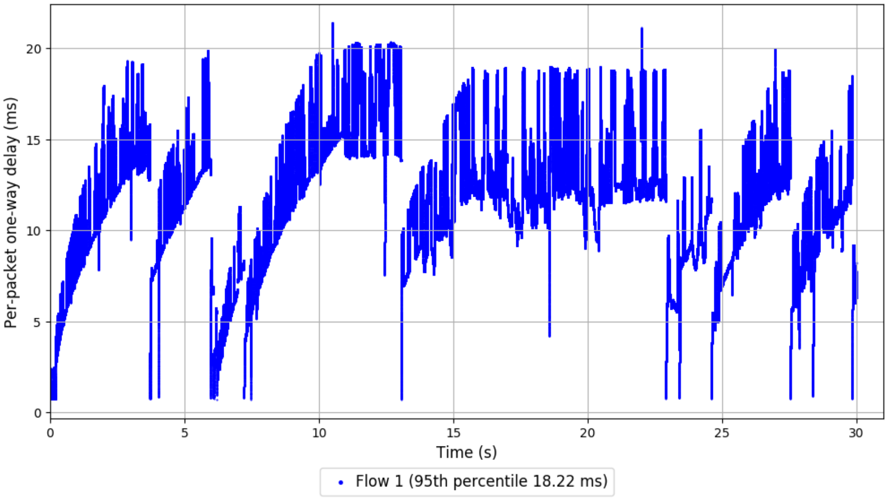




```
Run 4: Statistics of LEDBAT

Start at: 2019-10-02 19:08:58
End at: 2019-10-02 19:09:28
Local clock offset: 4.316 ms
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2019-10-02 20:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.69 Mbit/s
95th percentile per-packet one-way delay: 18.223 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 564.69 Mbit/s
95th percentile per-packet one-way delay: 18.223 ms
Loss rate: 0.03%
```

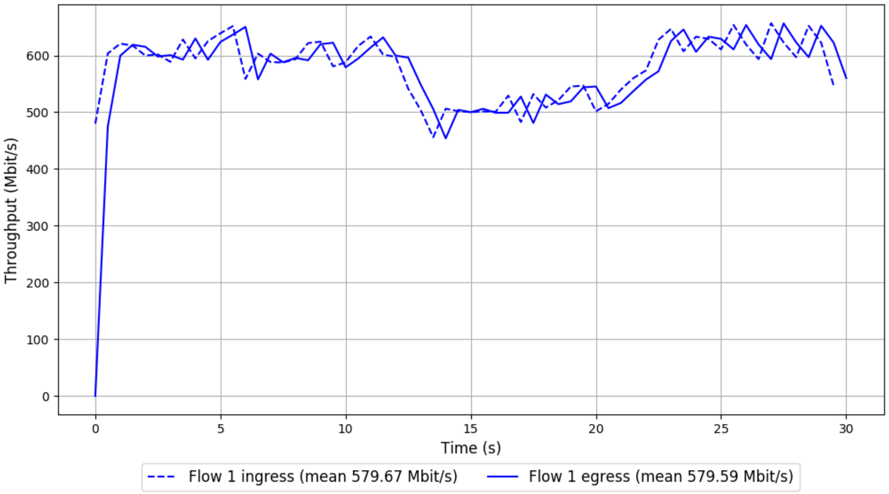
Run 4: Report of LEDBAT — Data Link

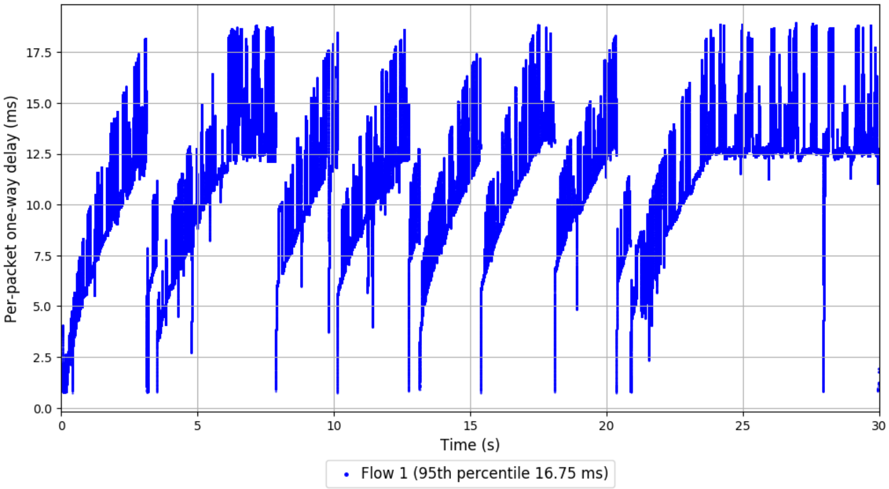




```
Run 5: Statistics of LEDBAT

Start at: 2019-10-02 19:42:19
End at: 2019-10-02 19:42:49
Local clock offset: 4.554 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2019-10-02 20:59:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 579.59 Mbit/s
95th percentile per-packet one-way delay: 16.755 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 579.59 Mbit/s
95th percentile per-packet one-way delay: 16.755 ms
Loss rate: 0.02%
```

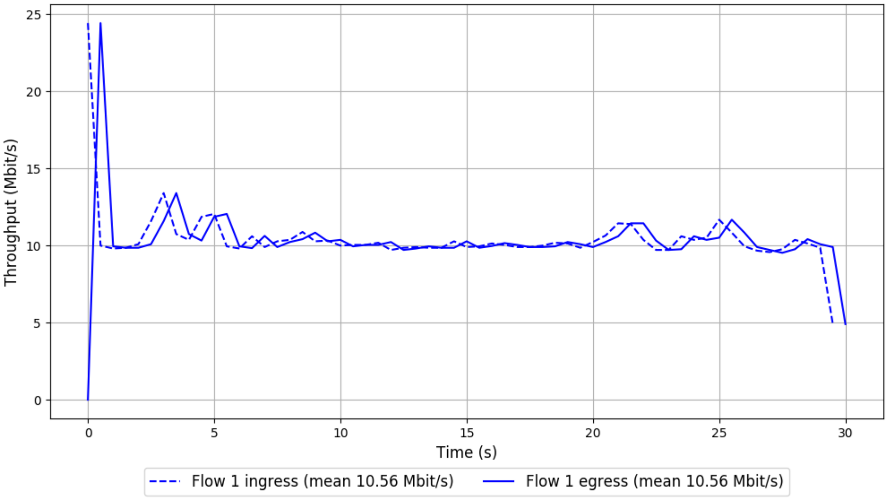
Run 5: Report of LEDBAT — Data Link

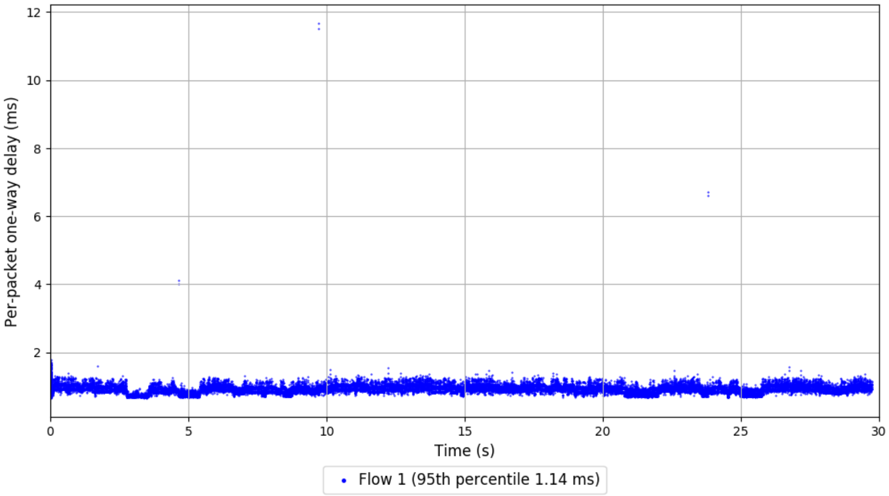




```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-10-02 17:58:07
End at: 2019-10-02 17:58:37
Local clock offset: 4.254 ms
Remote clock offset: 3.372 ms

# Below is generated by plot.py at 2019-10-02 20:59:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.56 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.56 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
```

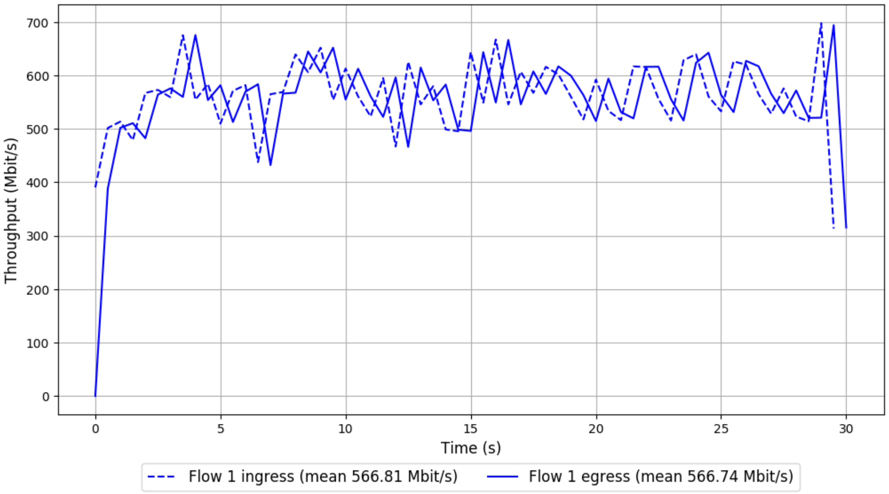
Run 1: Report of Muses_DecisionTree — Data Link

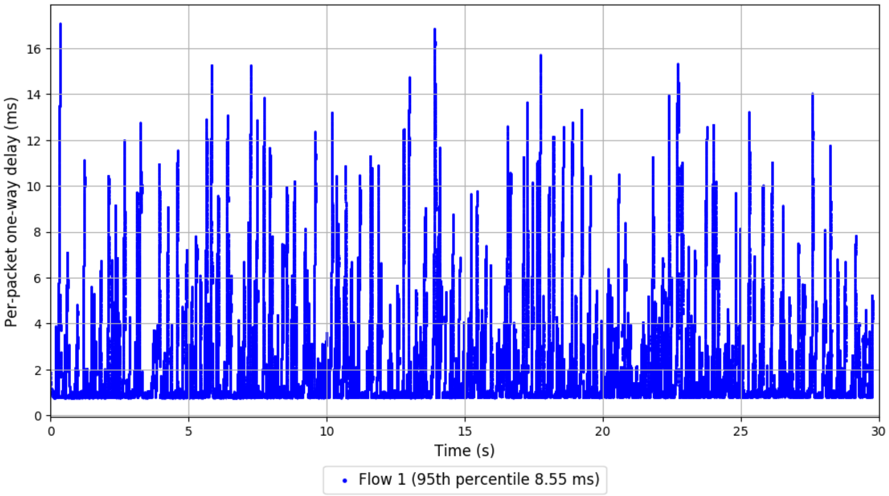




```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-10-02 18:30:49
End at: 2019-10-02 18:31:19
Local clock offset: 4.535 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-10-02 20:59:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 566.74 Mbit/s
95th percentile per-packet one-way delay: 8.553 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 566.74 Mbit/s
95th percentile per-packet one-way delay: 8.553 ms
Loss rate: 0.01%
```

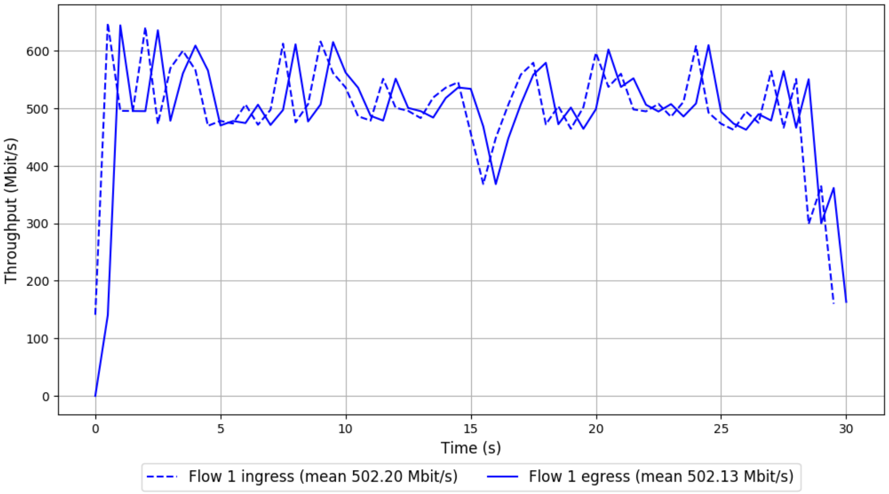
Run 2: Report of Muses_DecisionTree — Data Link

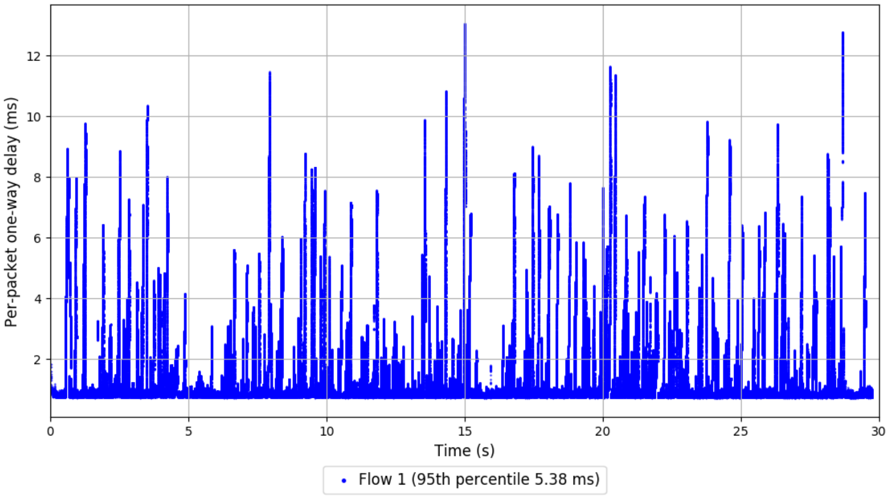




```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-10-02 19:04:35
End at: 2019-10-02 19:05:05
Local clock offset: 4.359 ms
Remote clock offset: -0.263 ms

# Below is generated by plot.py at 2019-10-02 20:59:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 502.13 Mbit/s
95th percentile per-packet one-way delay: 5.382 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 502.13 Mbit/s
95th percentile per-packet one-way delay: 5.382 ms
Loss rate: 0.02%
```

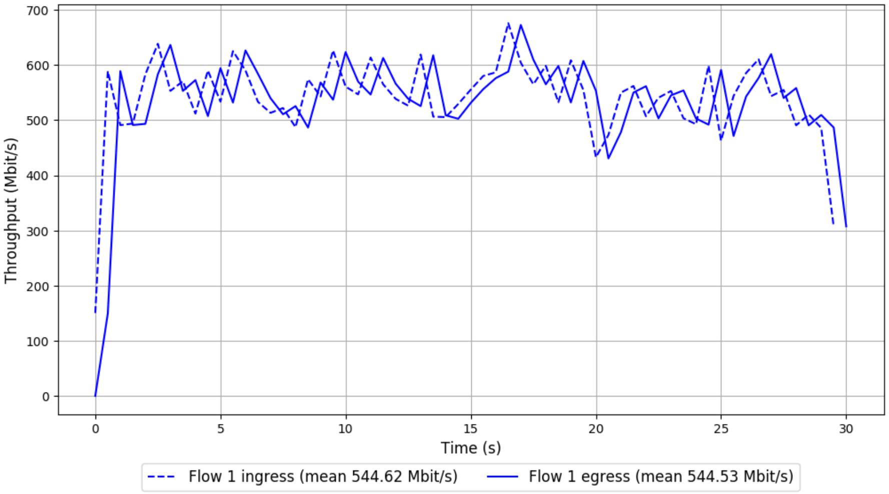
Run 3: Report of Muses_DecisionTree — Data Link

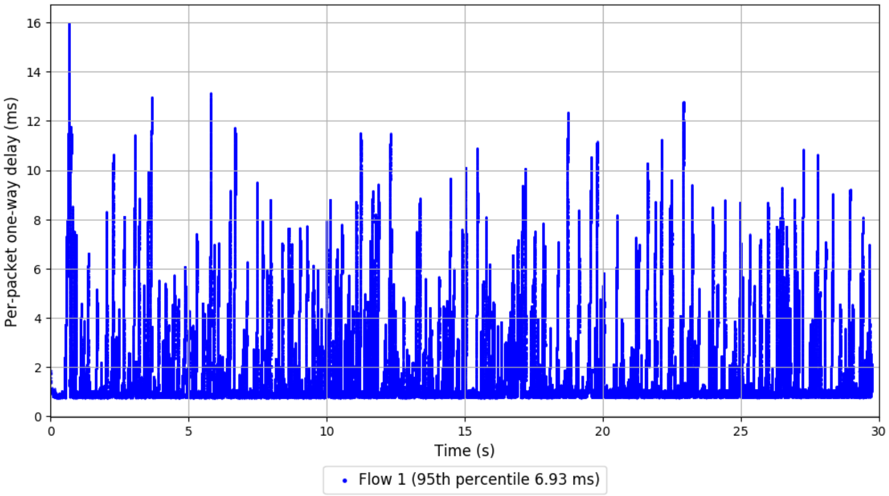




```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-10-02 19:37:56
End at: 2019-10-02 19:38:26
Local clock offset: 4.522 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-10-02 21:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.53 Mbit/s
95th percentile per-packet one-way delay: 6.926 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 544.53 Mbit/s
95th percentile per-packet one-way delay: 6.926 ms
Loss rate: 0.02%
```

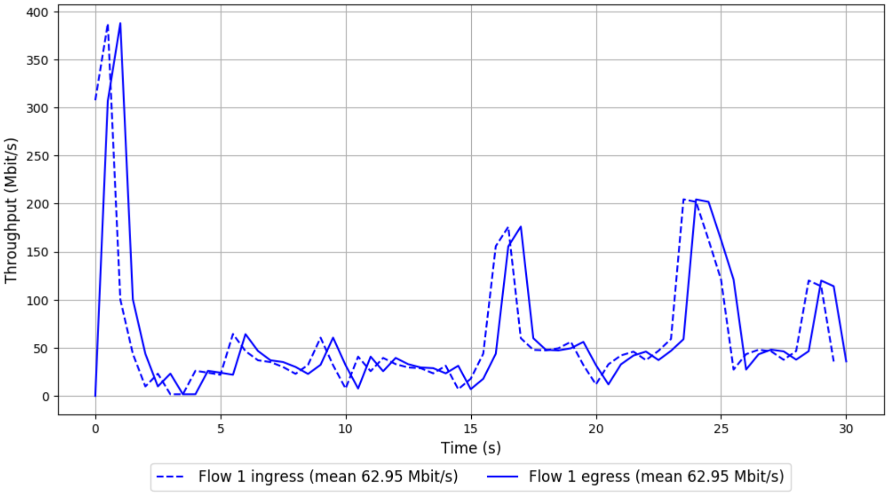
Run 4: Report of Muses_DecisionTree — Data Link

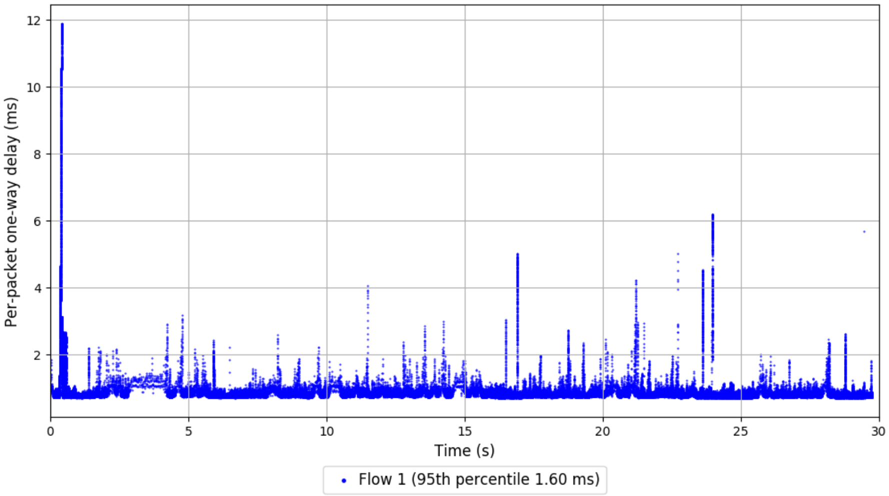




```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-10-02 20:11:03
End at: 2019-10-02 20:11:33
Local clock offset: 3.74 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2019-10-02 21:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.95 Mbit/s
95th percentile per-packet one-way delay: 1.603 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.95 Mbit/s
95th percentile per-packet one-way delay: 1.603 ms
Loss rate: 0.00%
```

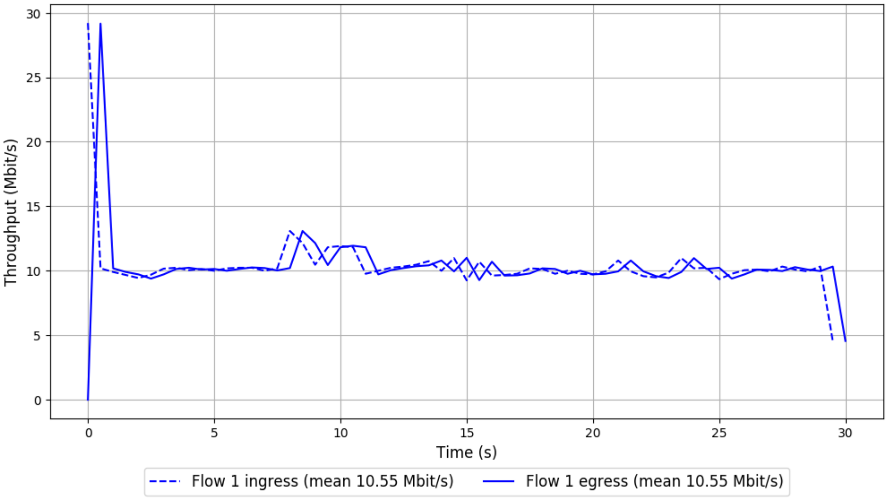
Run 5: Report of Muses_DecisionTree — Data Link

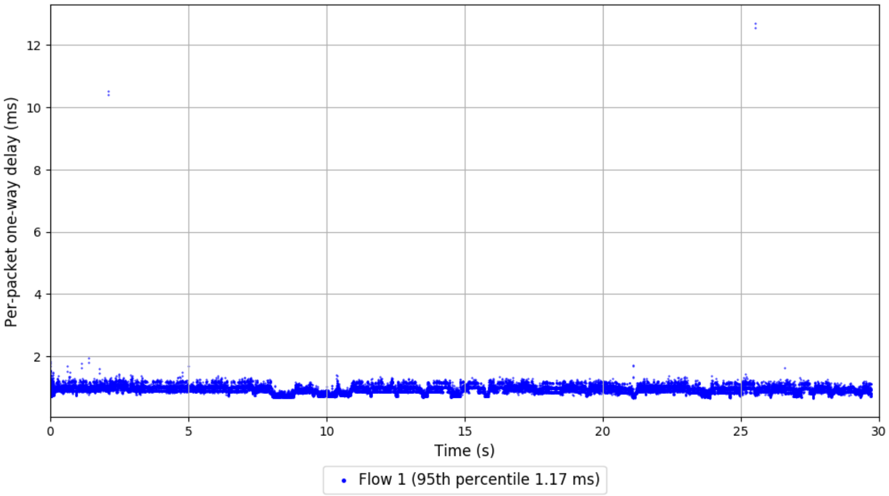




```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 17:32:32
End at: 2019-10-02 17:33:02
Local clock offset: 4.546 ms
Remote clock offset: 3.396 ms

# Below is generated by plot.py at 2019-10-02 21:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.55 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.55 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
```

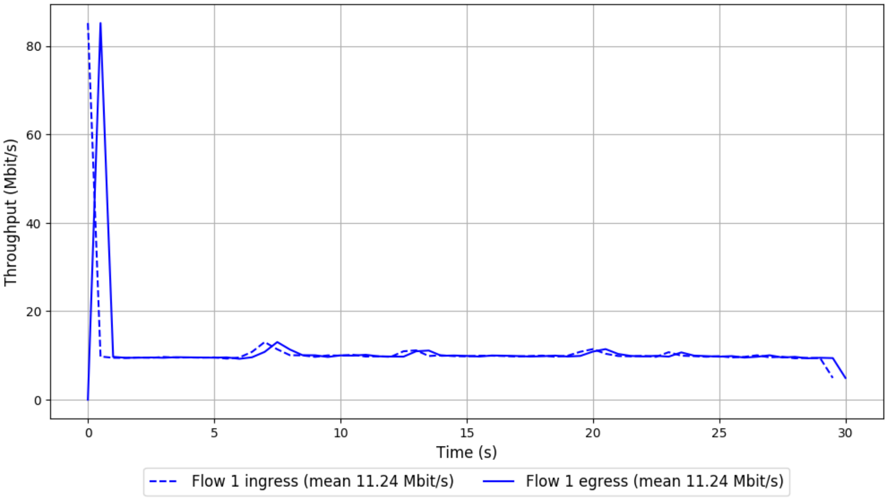
Run 1: Report of Muses_DecisionTreeH0 — Data Link

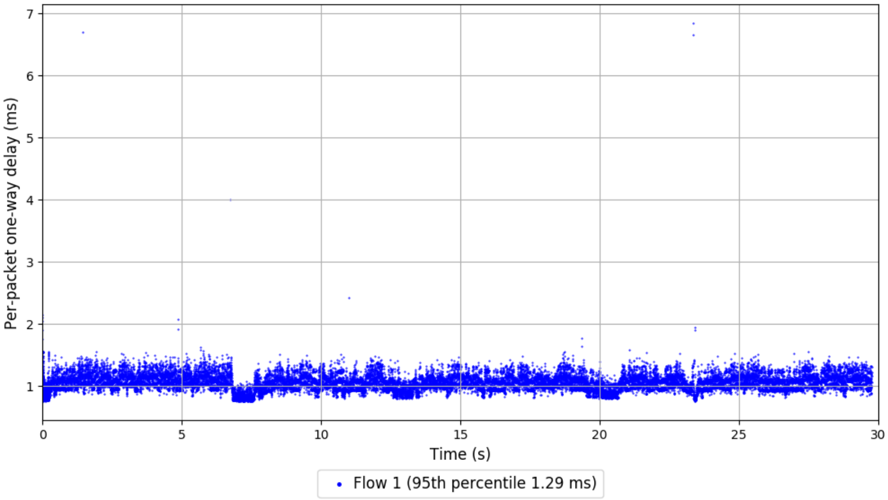




```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 18:05:03
End at: 2019-10-02 18:05:33
Local clock offset: 4.27 ms
Remote clock offset: 3.604 ms

# Below is generated by plot.py at 2019-10-02 21:01:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.00%
```

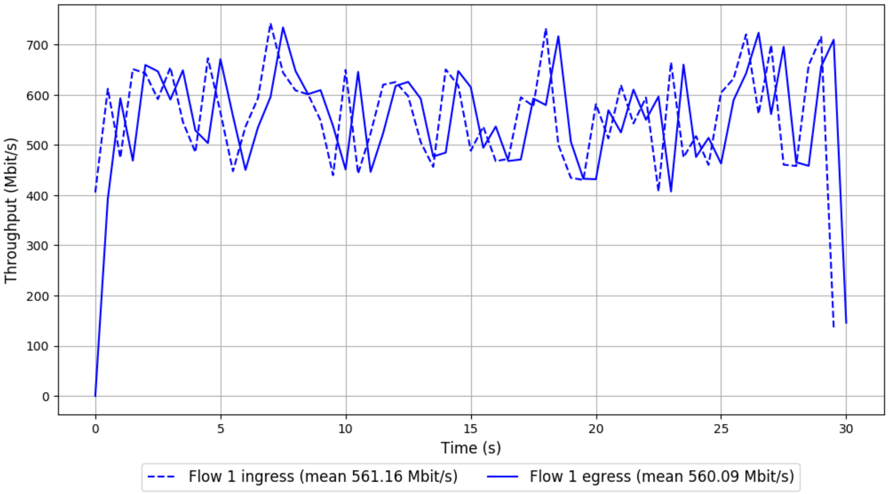
Run 2: Report of Muses_DecisionTreeH0 — Data Link

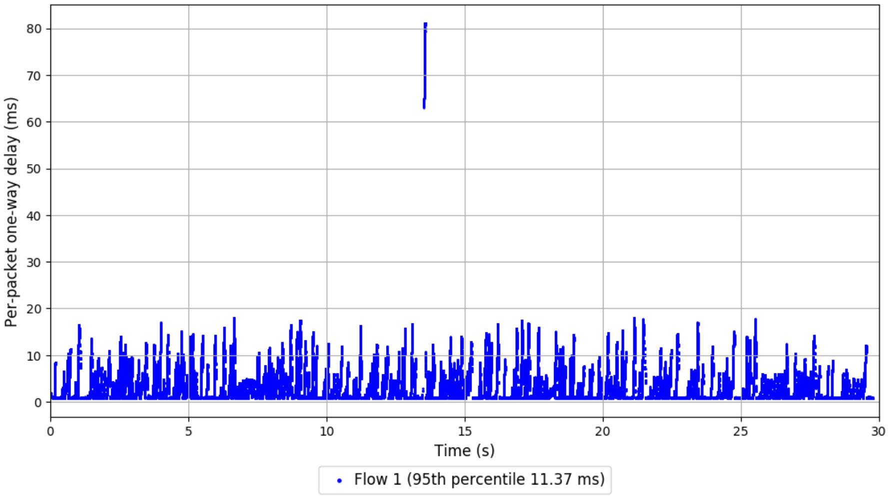




```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 18:37:59
End at: 2019-10-02 18:38:29
Local clock offset: 4.512 ms
Remote clock offset: -0.343 ms

# Below is generated by plot.py at 2019-10-02 21:03:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 560.09 Mbit/s
95th percentile per-packet one-way delay: 11.369 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 560.09 Mbit/s
95th percentile per-packet one-way delay: 11.369 ms
Loss rate: 0.19%
```

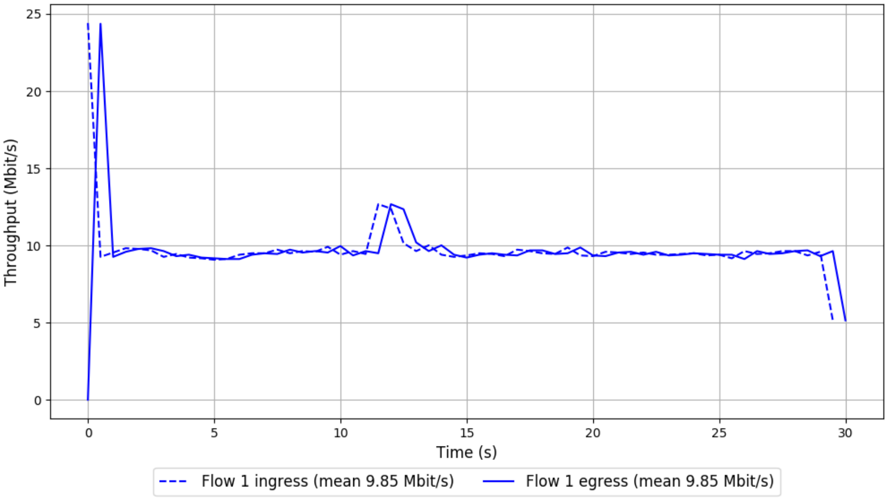
Run 3: Report of Muses_DecisionTreeH0 — Data Link

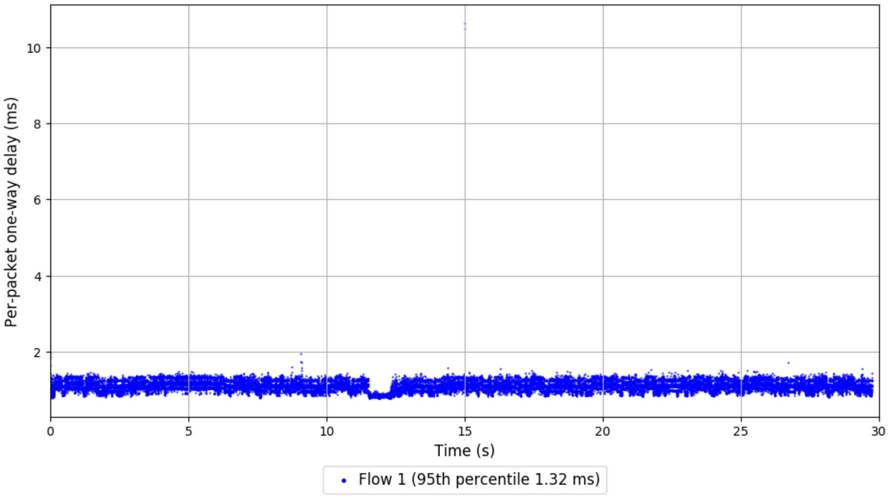




```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 19:11:58
End at: 2019-10-02 19:12:28
Local clock offset: 4.317 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2019-10-02 21:03:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
```

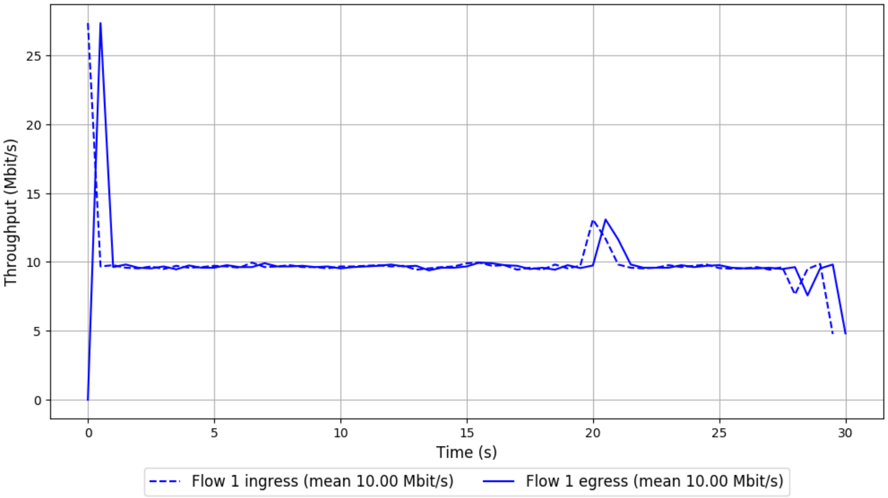
Run 4: Report of Muses_DecisionTreeH0 — Data Link

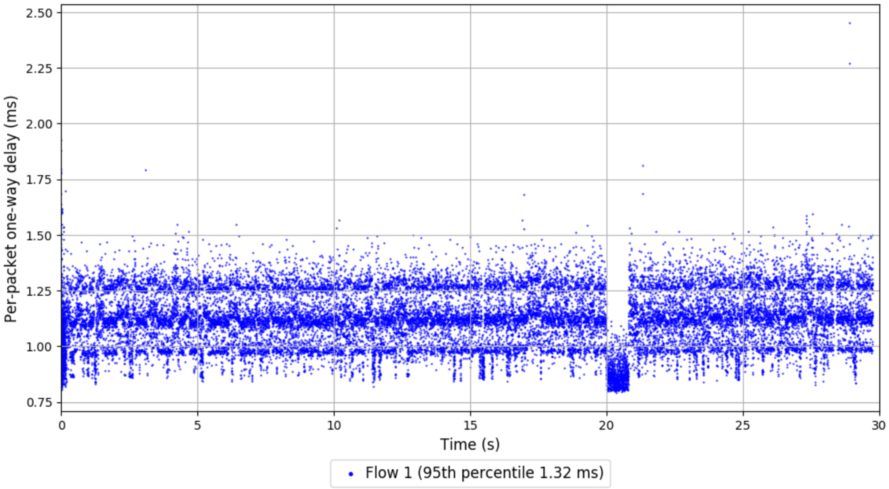




```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 19:45:20
End at: 2019-10-02 19:45:50
Local clock offset: 4.542 ms
Remote clock offset: -0.179 ms

# Below is generated by plot.py at 2019-10-02 21:03:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
```

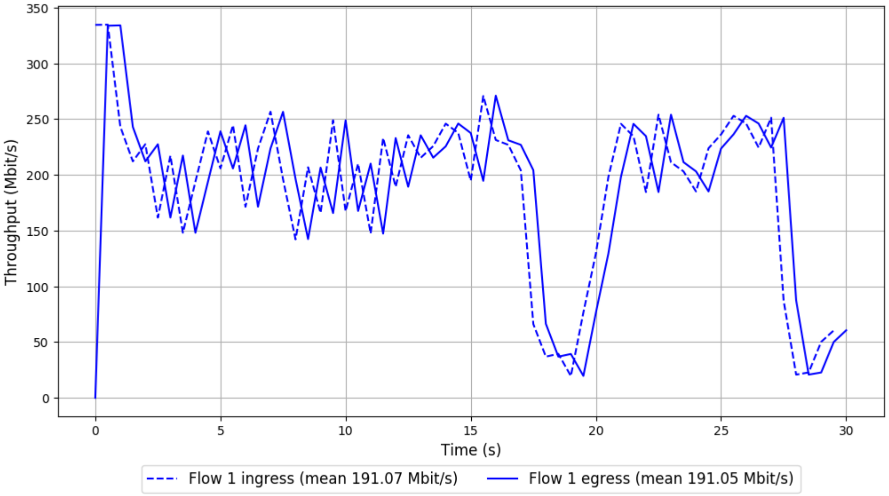
Run 5: Report of Muses_DecisionTreeH0 — Data Link

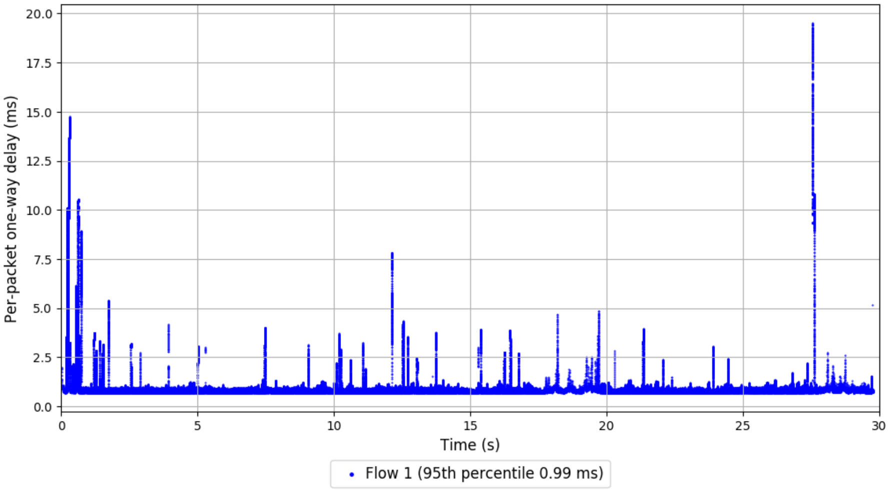




```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 17:48:37
End at: 2019-10-02 17:49:07
Local clock offset: 4.212 ms
Remote clock offset: 3.296 ms

# Below is generated by plot.py at 2019-10-02 21:03:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.05 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 191.05 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
```

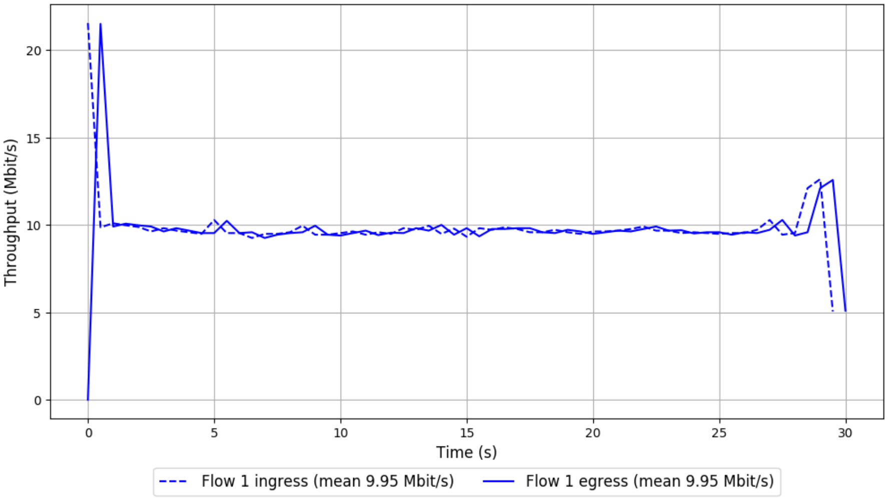
Run 1: Report of Muses_DecisionTreeR0 — Data Link

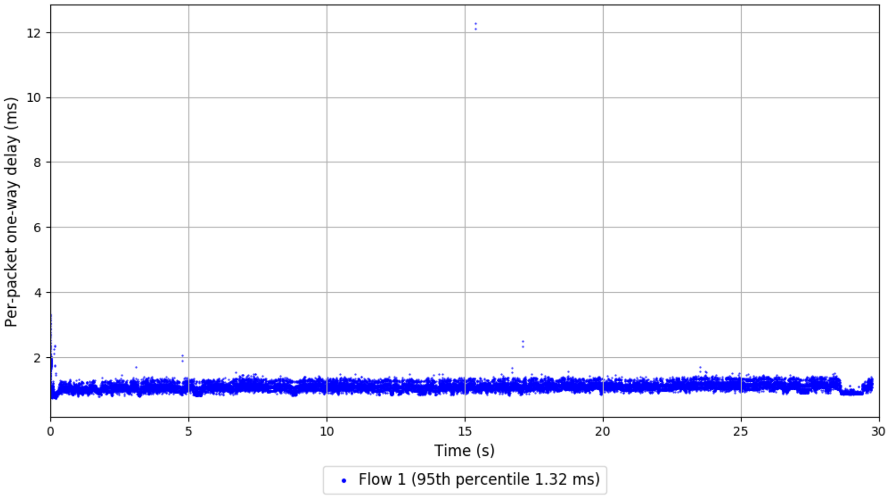




```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 18:21:11
End at: 2019-10-02 18:21:41
Local clock offset: 4.625 ms
Remote clock offset: 1.06 ms

# Below is generated by plot.py at 2019-10-02 21:03:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 1.317 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 1.317 ms
Loss rate: 0.00%
```

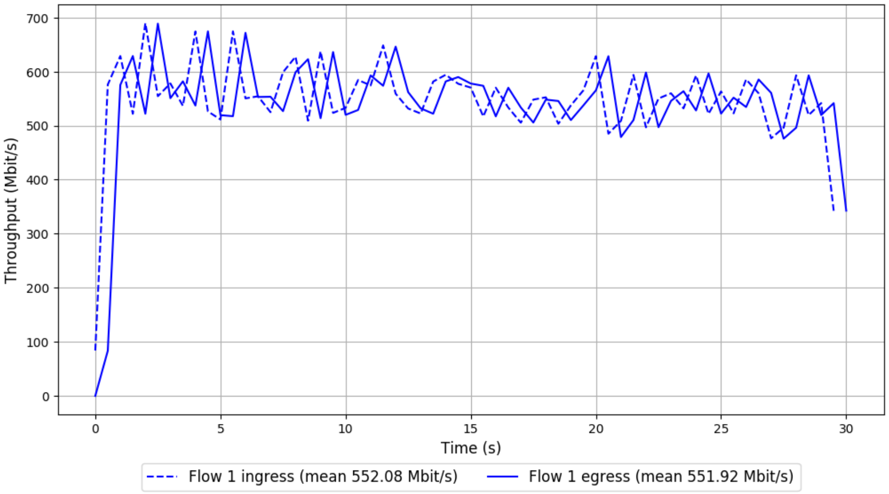
Run 2: Report of Muses_DecisionTreeR0 — Data Link

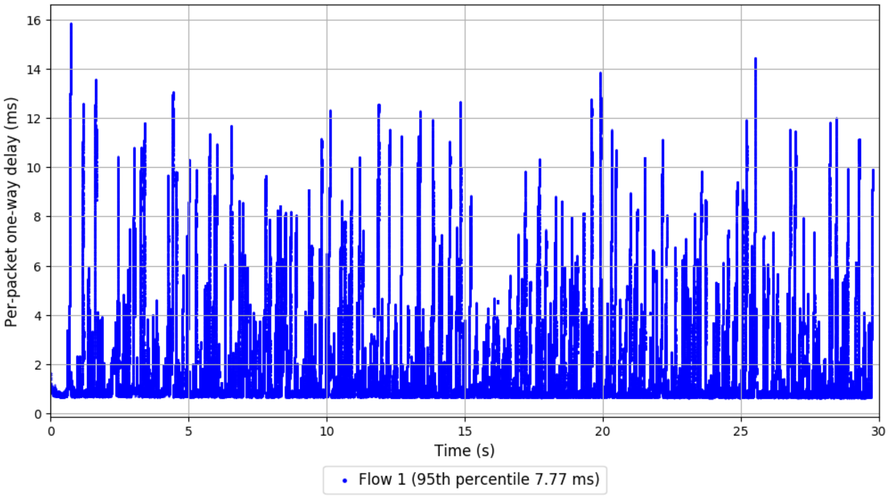




```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 18:54:24
End at: 2019-10-02 18:54:54
Local clock offset: 4.729 ms
Remote clock offset: -0.368 ms

# Below is generated by plot.py at 2019-10-02 21:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 551.92 Mbit/s
95th percentile per-packet one-way delay: 7.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 551.92 Mbit/s
95th percentile per-packet one-way delay: 7.767 ms
Loss rate: 0.00%
```

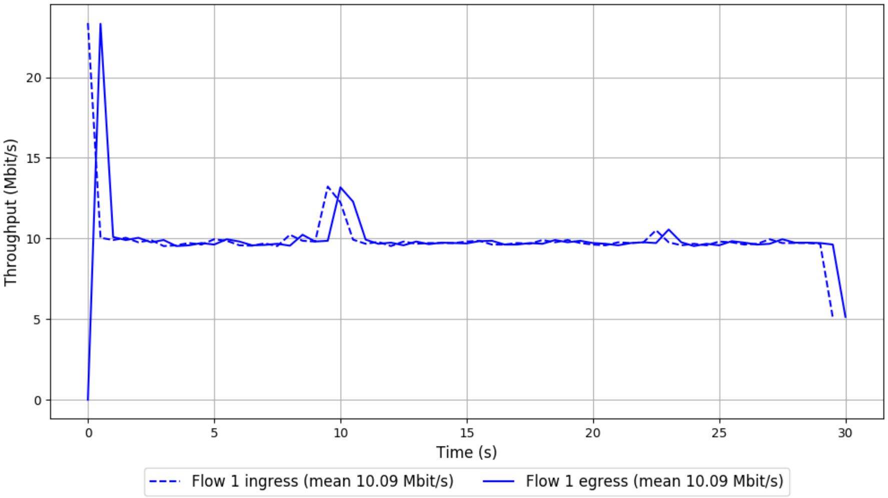
Run 3: Report of Muses_DecisionTreeR0 — Data Link

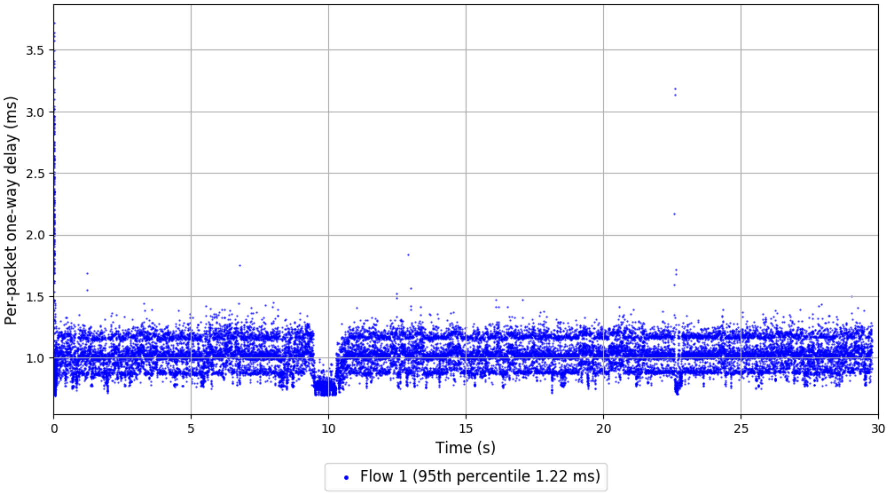




```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 19:28:00
End at: 2019-10-02 19:28:30
Local clock offset: 4.352 ms
Remote clock offset: -0.242 ms

# Below is generated by plot.py at 2019-10-02 21:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.00%
```

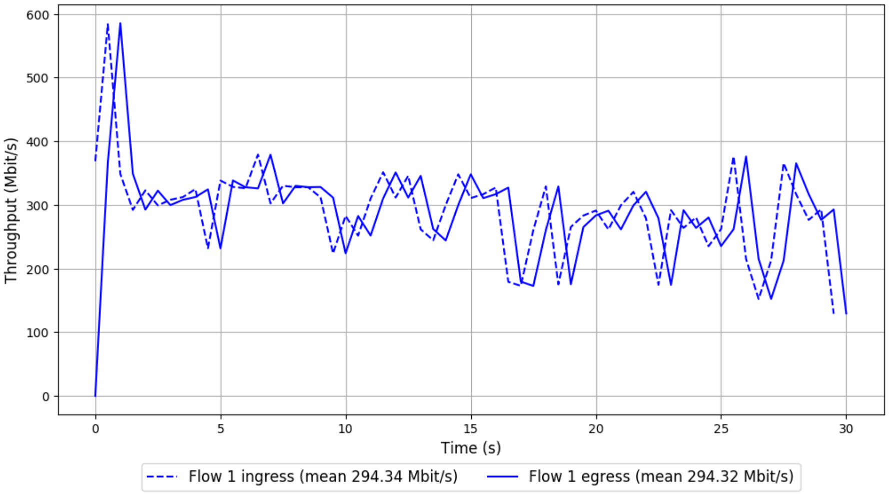
Run 4: Report of Muses_DecisionTreeR0 — Data Link

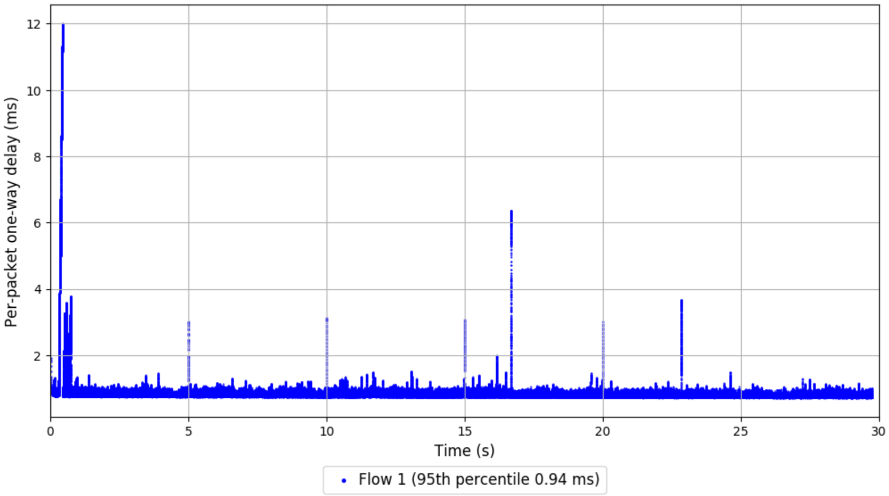




```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 20:01:28
End at: 2019-10-02 20:01:58
Local clock offset: 4.15 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2019-10-02 21:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 294.32 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 294.32 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.01%
```

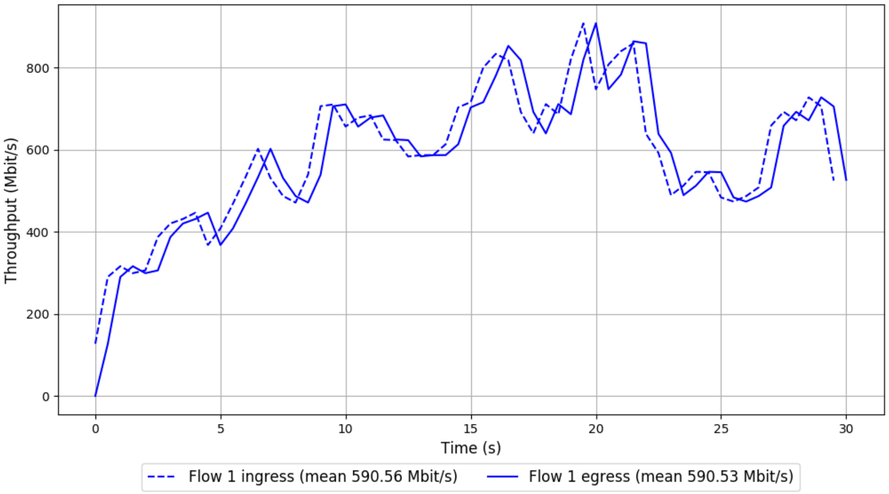
Run 5: Report of Muses_DecisionTreeR0 — Data Link

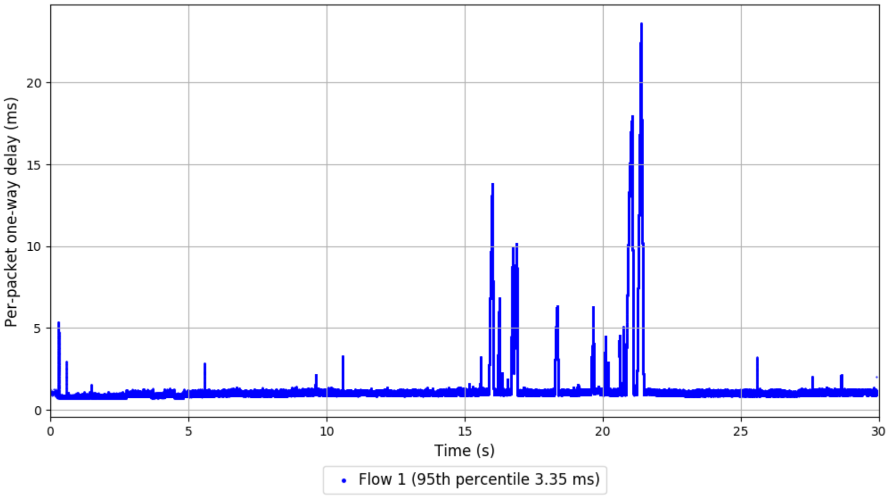




```
Run 1: Statistics of PCC-Allegro

Start at: 2019-10-02 17:52:29
End at: 2019-10-02 17:52:59
Local clock offset: 4.23 ms
Remote clock offset: 3.321 ms

# Below is generated by plot.py at 2019-10-02 21:06:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.53 Mbit/s
95th percentile per-packet one-way delay: 3.346 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 590.53 Mbit/s
95th percentile per-packet one-way delay: 3.346 ms
Loss rate: 0.00%
```

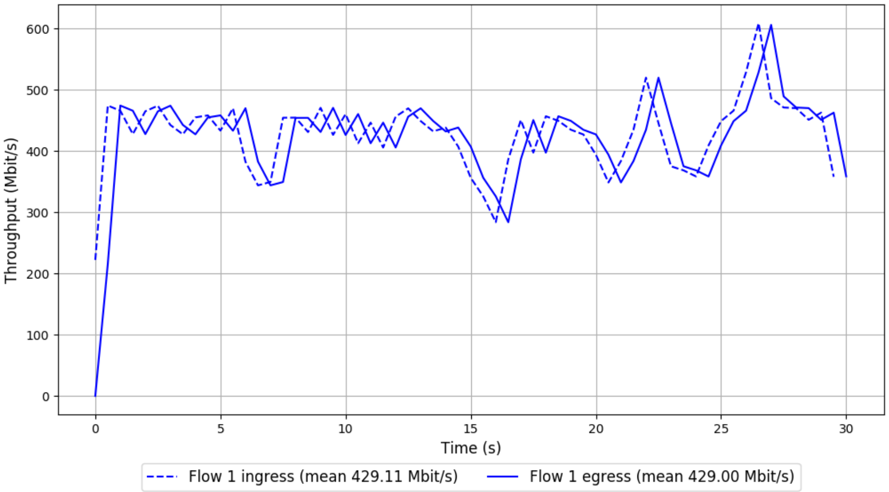
Run 1: Report of PCC-Allegro — Data Link

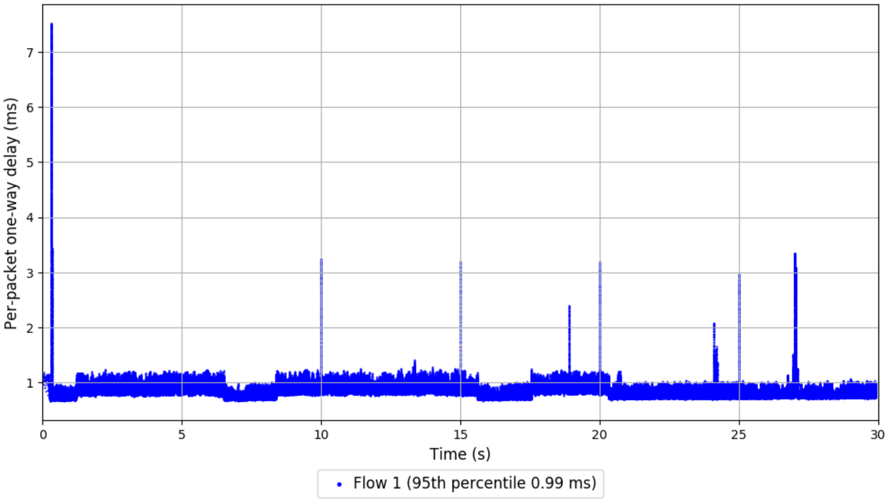




```
Run 2: Statistics of PCC-Allegro

Start at: 2019-10-02 18:24:56
End at: 2019-10-02 18:25:26
Local clock offset: 4.729 ms
Remote clock offset: 0.482 ms

# Below is generated by plot.py at 2019-10-02 21:06:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 429.00 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 429.00 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.03%
```

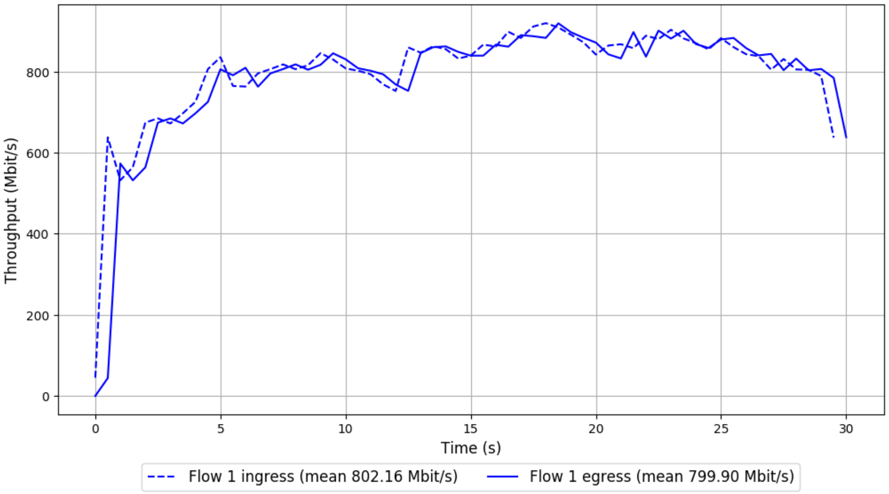
Run 2: Report of PCC-Allegro — Data Link

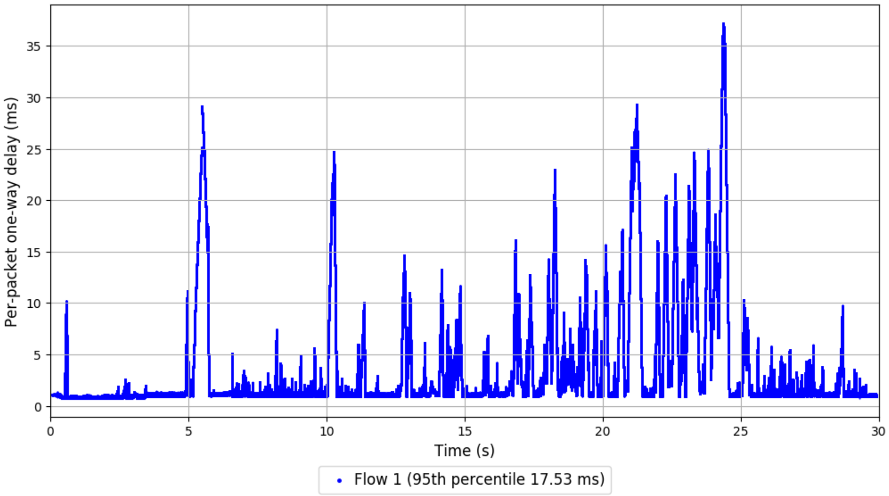




```
Run 3: Statistics of PCC-Allegro

Start at: 2019-10-02 18:58:35
End at: 2019-10-02 18:59:05
Local clock offset: 4.561 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2019-10-02 21:09:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 799.90 Mbit/s
95th percentile per-packet one-way delay: 17.533 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 799.90 Mbit/s
95th percentile per-packet one-way delay: 17.533 ms
Loss rate: 0.28%
```

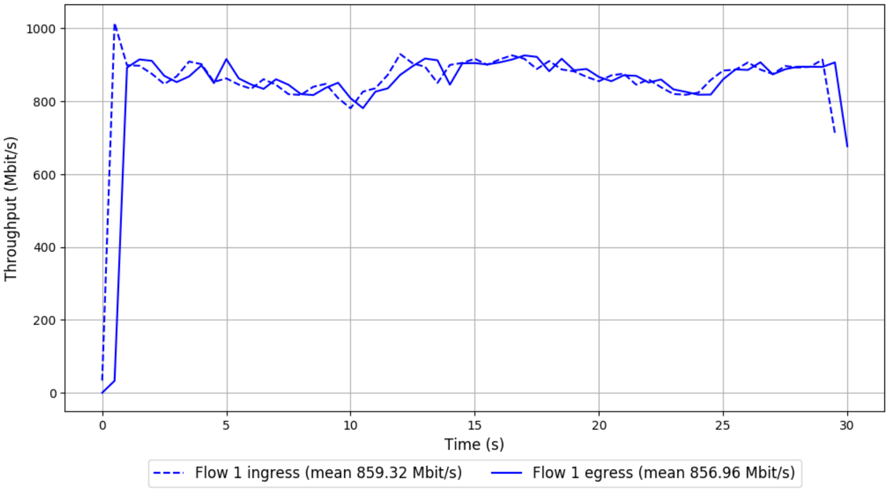
Run 3: Report of PCC-Allegro — Data Link

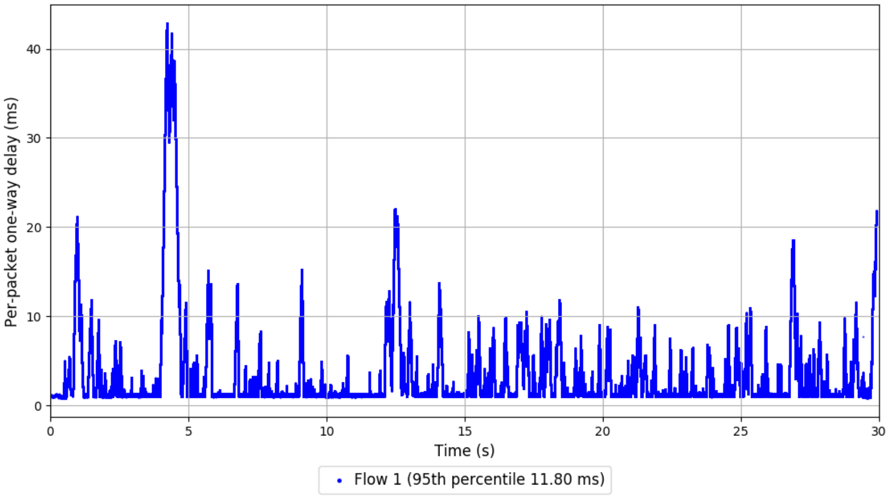




```
Run 4: Statistics of PCC-Allegro

Start at: 2019-10-02 19:31:59
End at: 2019-10-02 19:32:29
Local clock offset: 4.433 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 856.96 Mbit/s
95th percentile per-packet one-way delay: 11.802 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 856.96 Mbit/s
95th percentile per-packet one-way delay: 11.802 ms
Loss rate: 0.28%
```

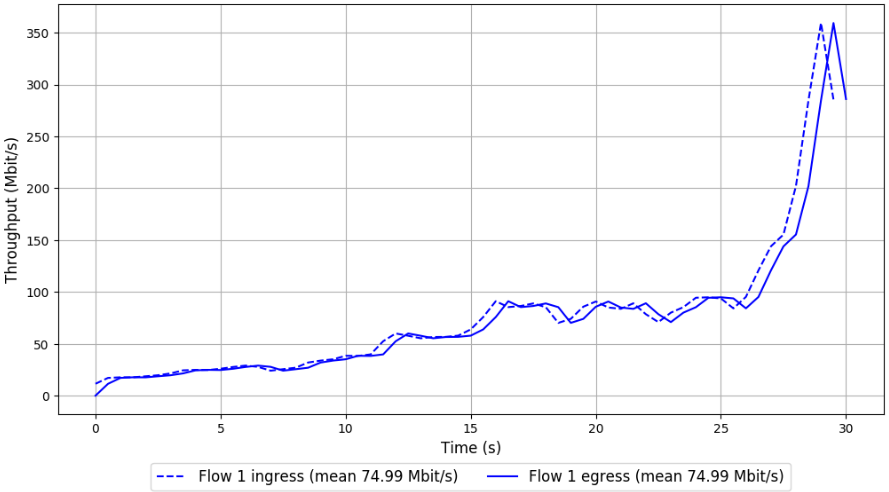
Run 4: Report of PCC-Allegro — Data Link

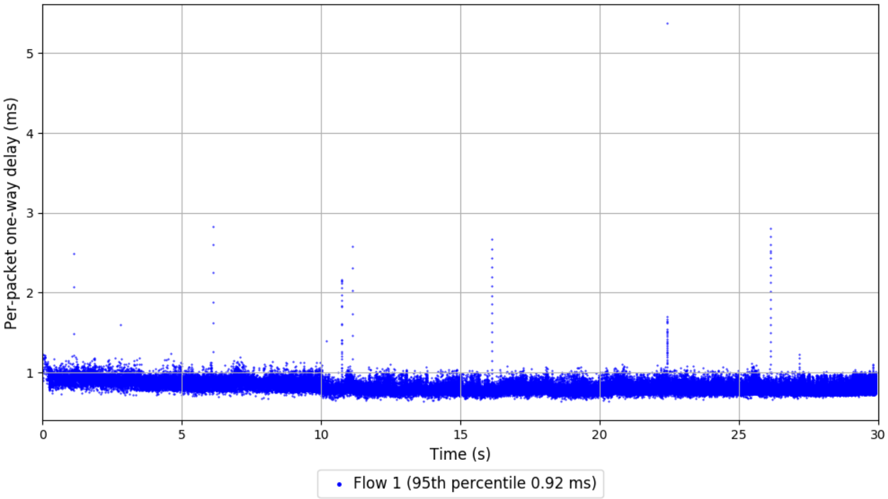




```
Run 5: Statistics of PCC-Allegro

Start at: 2019-10-02 20:05:30
End at: 2019-10-02 20:06:00
Local clock offset: 3.894 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.99 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.99 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%
```

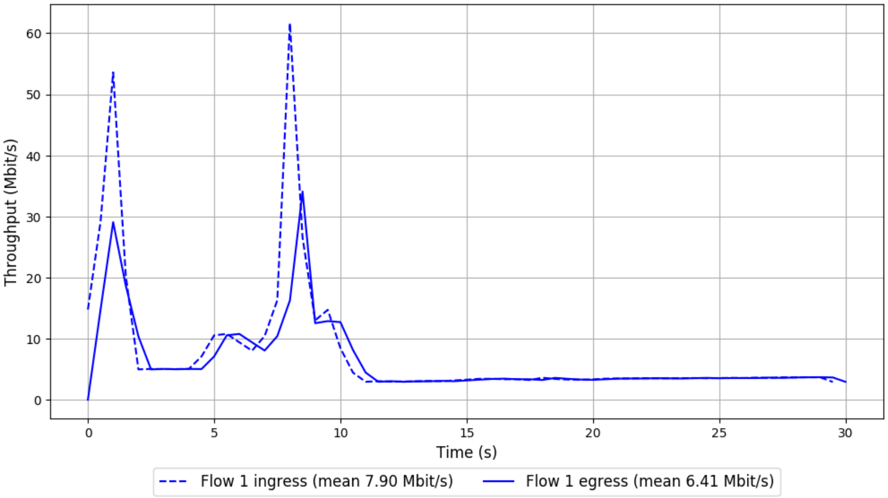
Run 5: Report of PCC-Allegro — Data Link

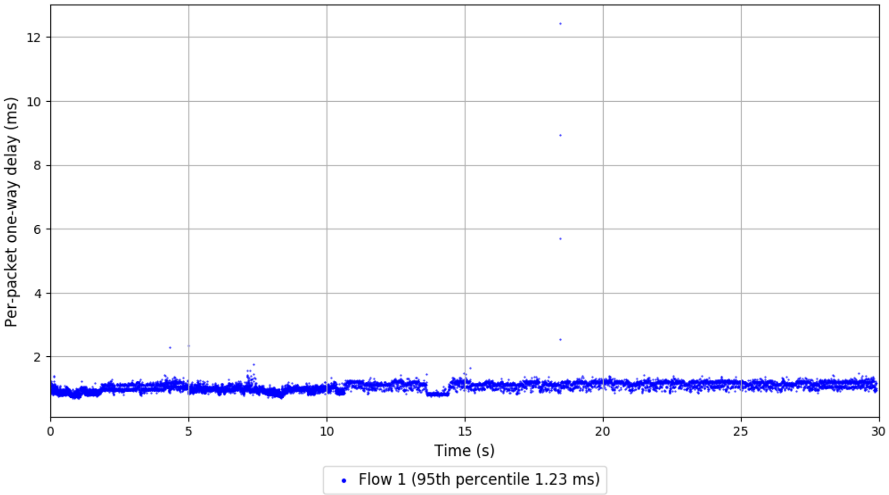




```
Run 1: Statistics of PCC-Expr

Start at: 2019-10-02 17:49:56
End at: 2019-10-02 17:50:26
Local clock offset: 4.233 ms
Remote clock offset: 3.353 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 18.85%
-- Flow 1:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 18.85%
```

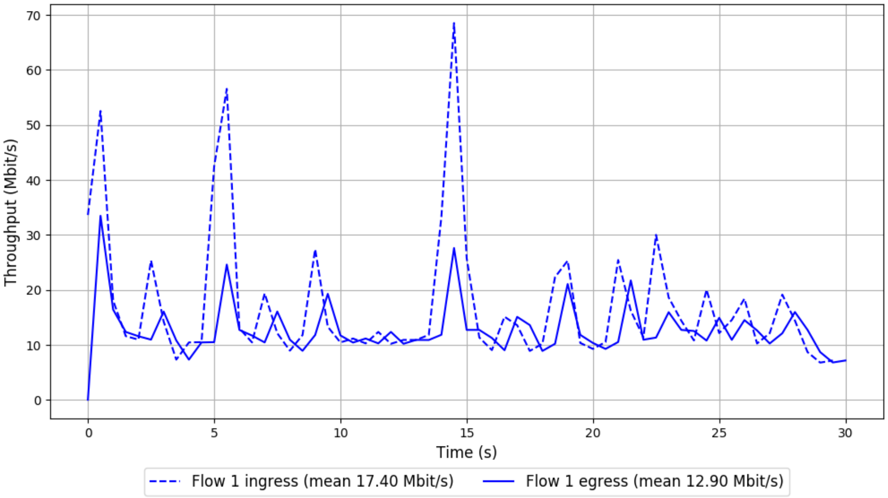
Run 1: Report of PCC-Expr — Data Link



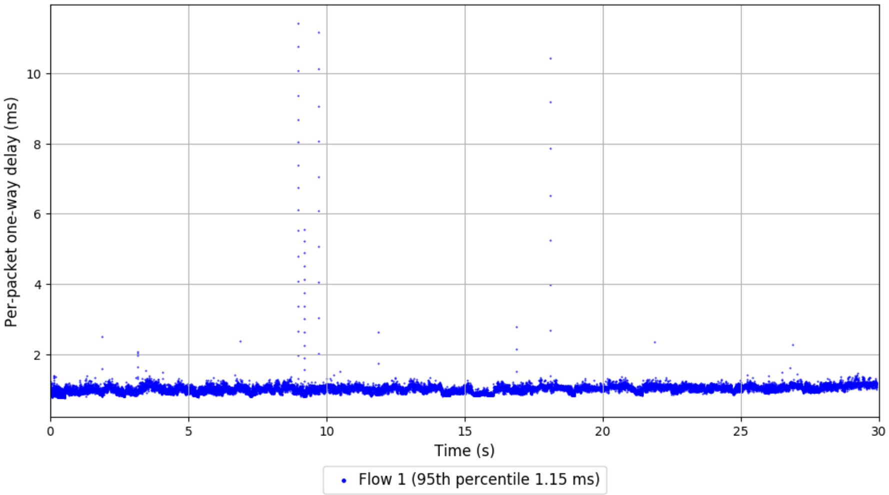


```
Run 2: Statistics of PCC-Expr

Start at: 2019-10-02 18:22:24
End at: 2019-10-02 18:22:55
Local clock offset: 4.654 ms
Remote clock offset: 0.846 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 1.145 ms
Loss rate: 25.87%
-- Flow 1:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 1.145 ms
Loss rate: 25.87%
```

Run 2: Report of PCC-Expr — Data Link



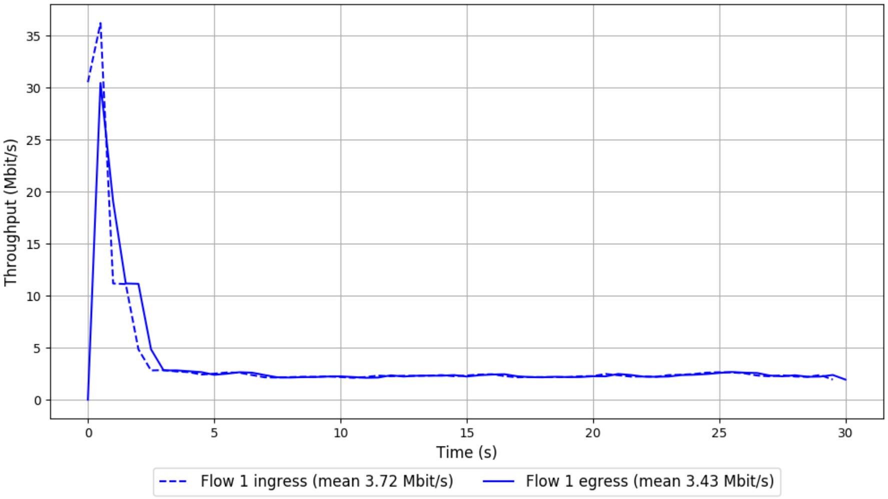
Flow 1 ingress (mean 17.40 Mbit/s) Flow 1 egress (mean 12.90 Mbit/s)

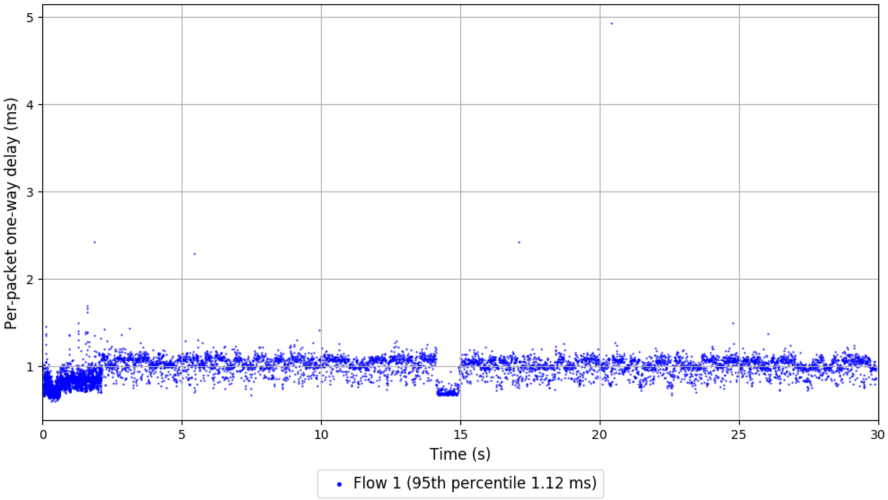


• Flow 1 (95th percentile 1.15 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-10-02 18:55:56
End at: 2019-10-02 18:56:26
Local clock offset: 4.674 ms
Remote clock offset: -0.365 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 7.74%
```

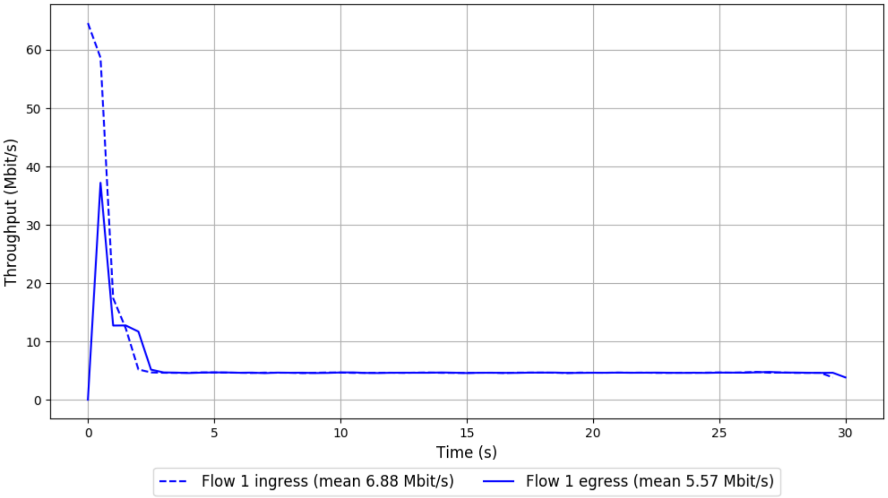
Run 3: Report of PCC-Expr — Data Link

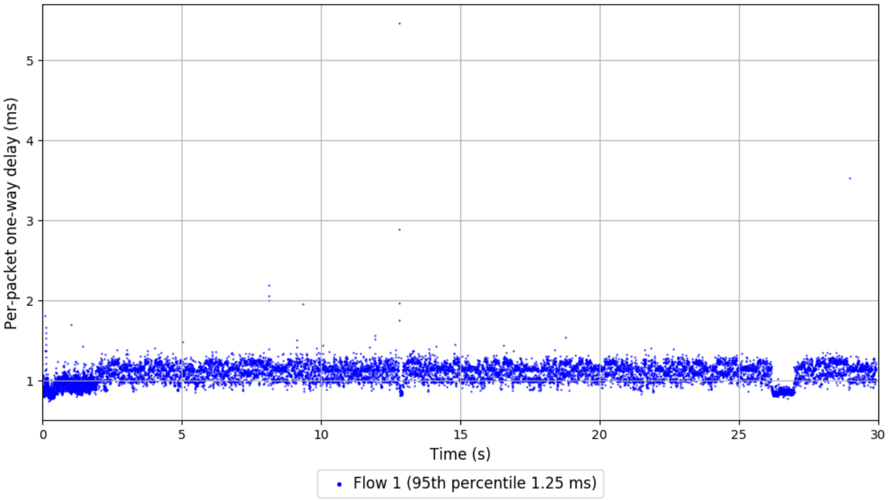




```
Run 4: Statistics of PCC-Expr

Start at: 2019-10-02 19:29:14
End at: 2019-10-02 19:29:44
Local clock offset: 4.38 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 19.05%
-- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 19.05%
```

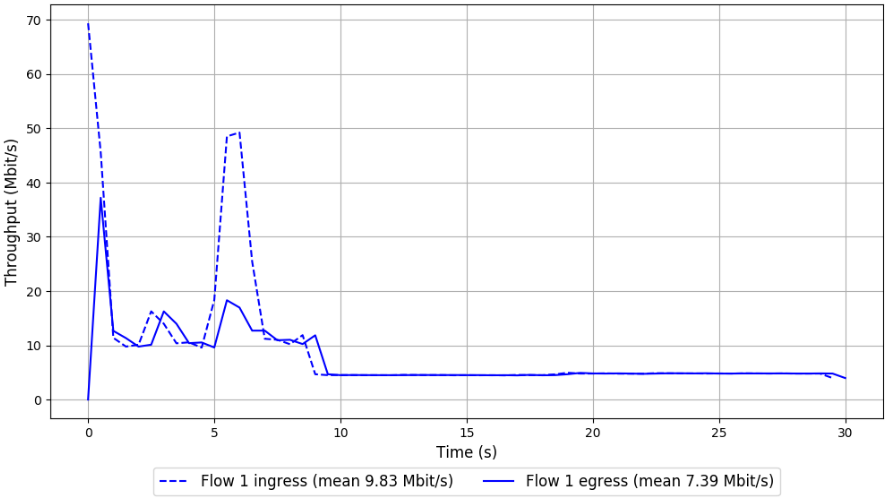
Run 4: Report of PCC-Expr — Data Link

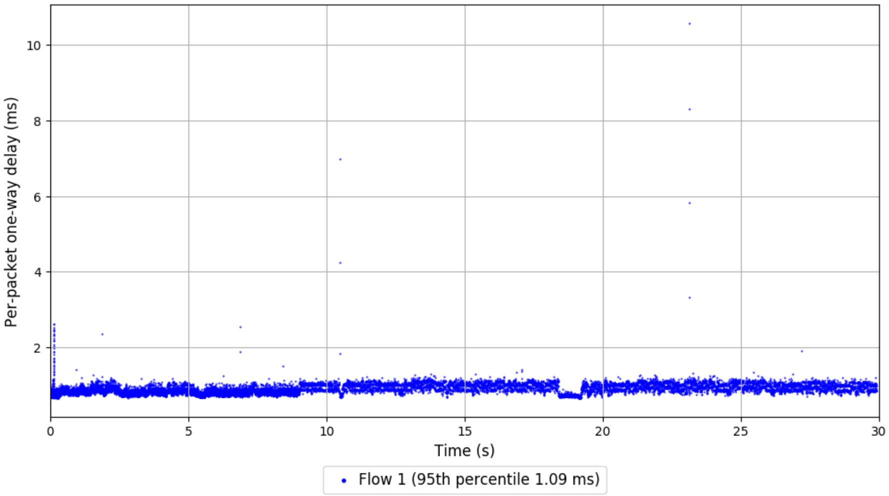




```
Run 5: Statistics of PCC-Expr

Start at: 2019-10-02 20:02:51
End at: 2019-10-02 20:03:21
Local clock offset: 4.026 ms
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 24.85%
-- Flow 1:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 24.85%
```

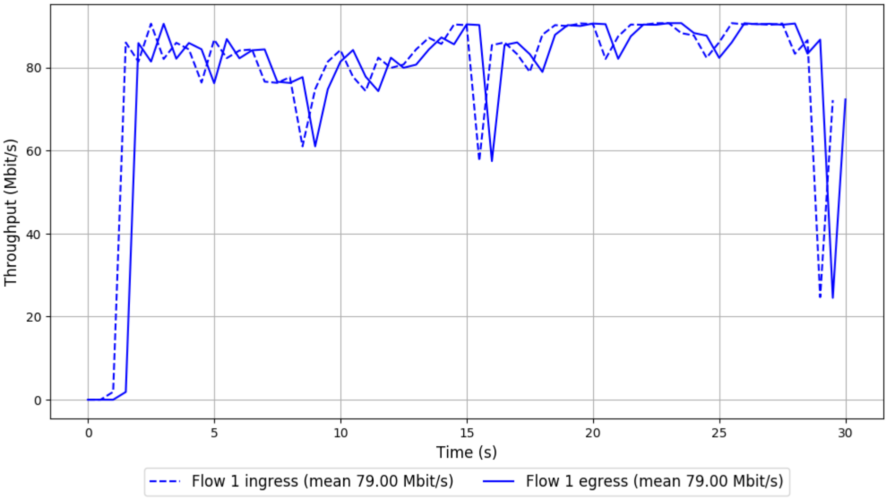
Run 5: Report of PCC-Expr — Data Link

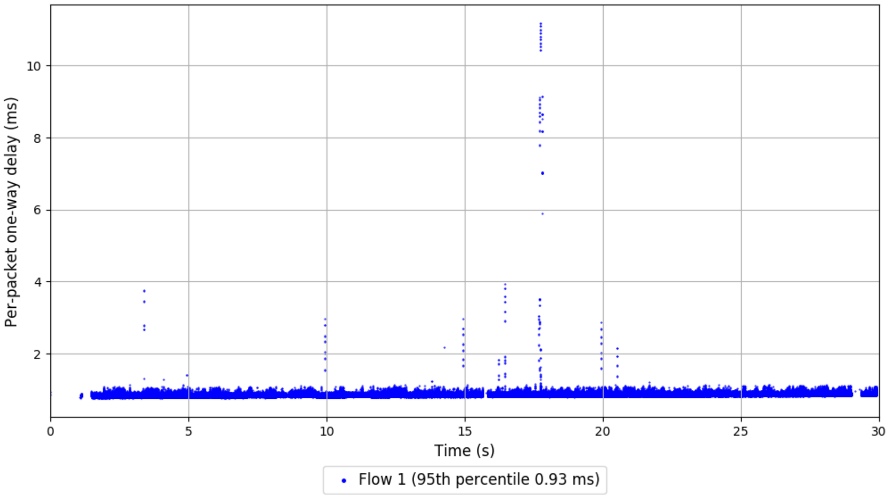




```
Run 1: Statistics of QUIC Cubic

Start at: 2019-10-02 17:38:54
End at: 2019-10-02 17:39:24
Local clock offset: 4.499 ms
Remote clock offset: 3.535 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.00 Mbit/s
95th percentile per-packet one-way delay: 0.927 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.00 Mbit/s
95th percentile per-packet one-way delay: 0.927 ms
Loss rate: 0.00%
```

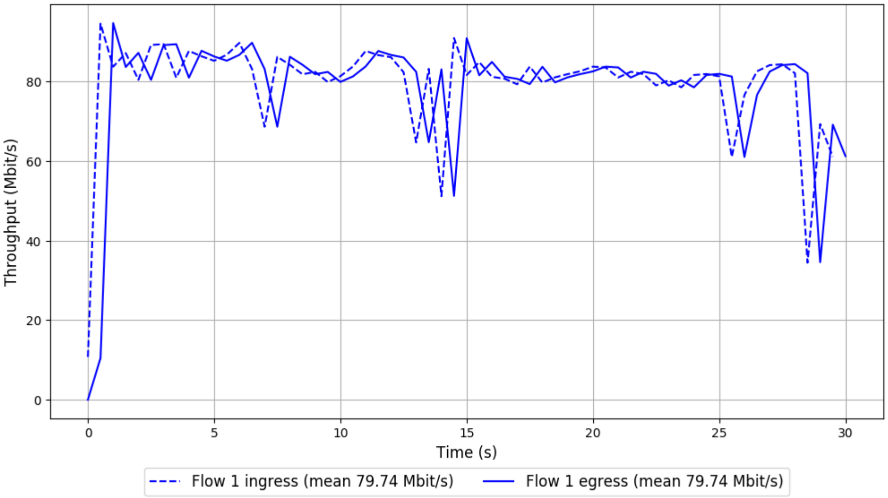
Run 1: Report of QUIC Cubic — Data Link

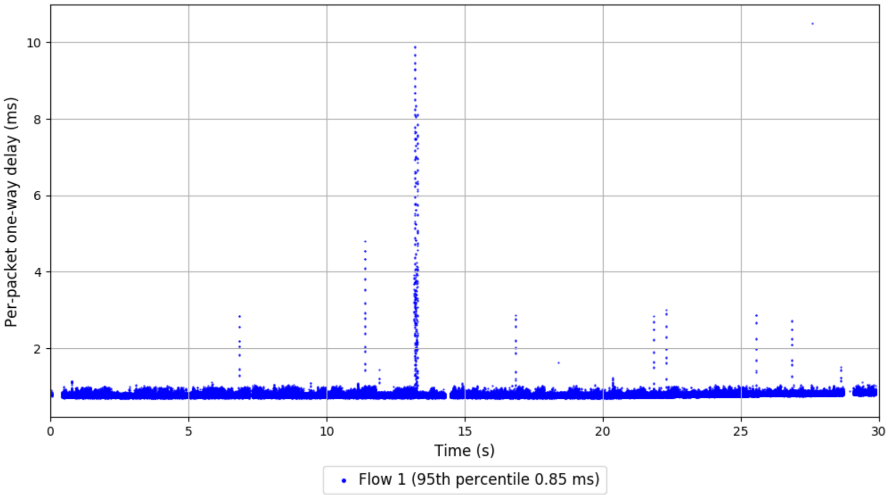




```
Run 2: Statistics of QUIC Cubic

Start at: 2019-10-02 18:11:31
End at: 2019-10-02 18:12:01
Local clock offset: 4.393 ms
Remote clock offset: 3.72 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 0.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 0.854 ms
Loss rate: 0.00%
```

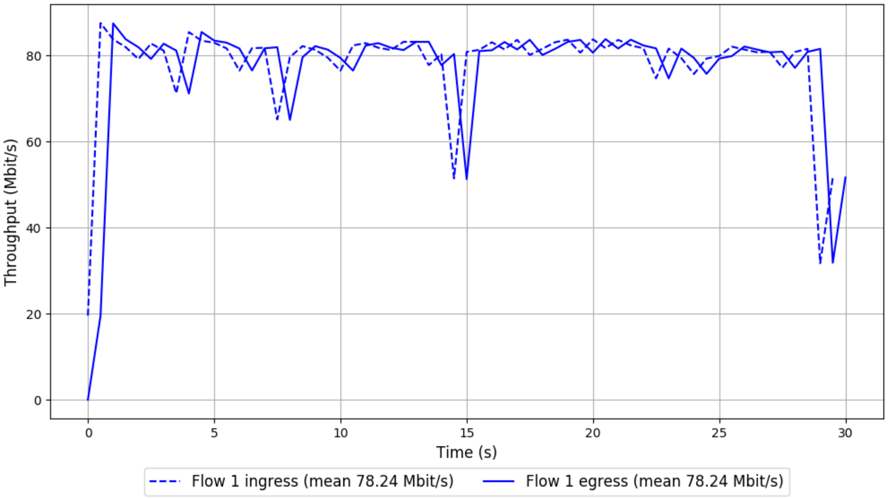
Run 2: Report of QUIC Cubic — Data Link

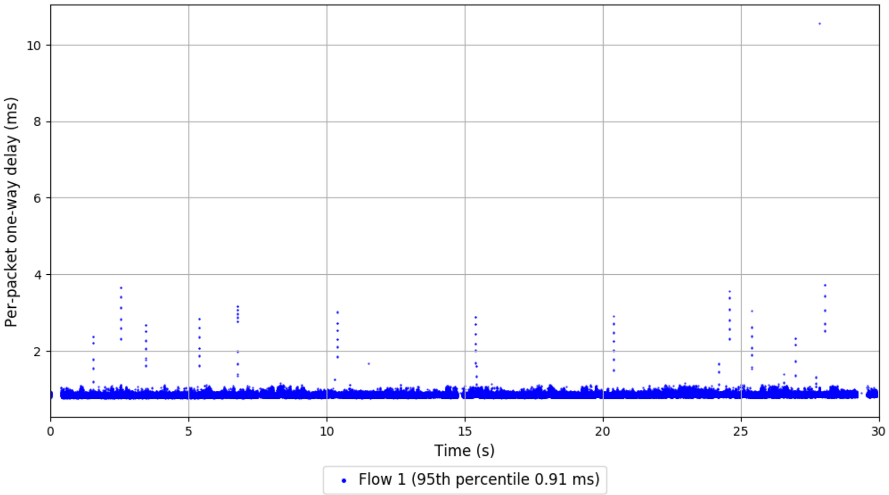




```
Run 3: Statistics of QUIC Cubic

Start at: 2019-10-02 18:44:46
End at: 2019-10-02 18:45:16
Local clock offset: 4.592 ms
Remote clock offset: -0.602 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.24 Mbit/s
95th percentile per-packet one-way delay: 0.911 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.24 Mbit/s
95th percentile per-packet one-way delay: 0.911 ms
Loss rate: 0.00%
```

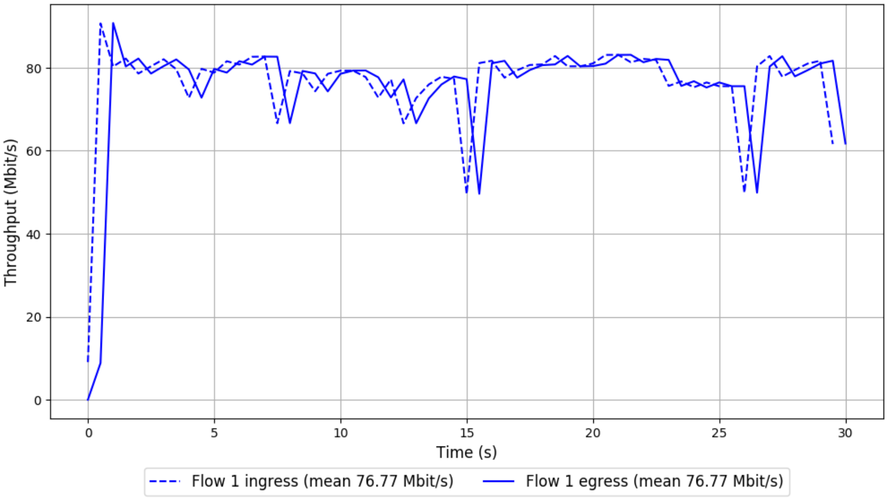
Run 3: Report of QUIC Cubic — Data Link

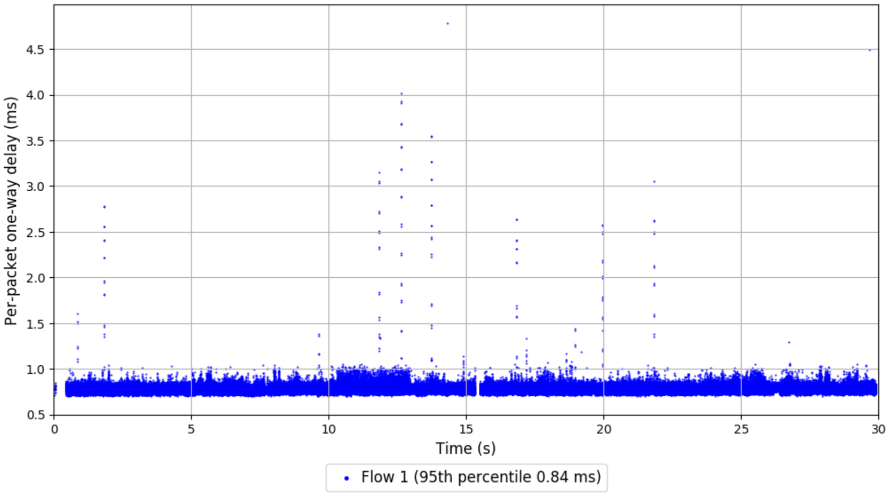




```
Run 4: Statistics of QUIC Cubic

Start at: 2019-10-02 19:18:20
End at: 2019-10-02 19:18:50
Local clock offset: 4.311 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.77 Mbit/s
95th percentile per-packet one-way delay: 0.839 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.77 Mbit/s
95th percentile per-packet one-way delay: 0.839 ms
Loss rate: 0.00%
```

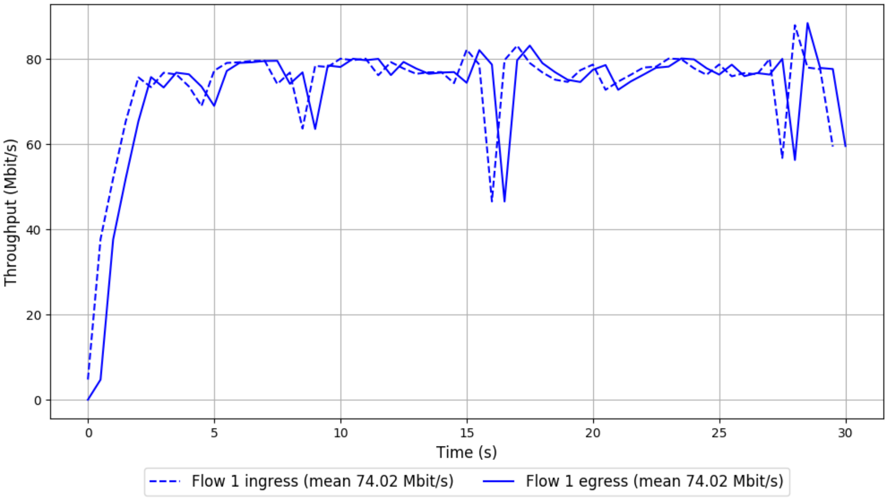
Run 4: Report of QUIC Cubic — Data Link

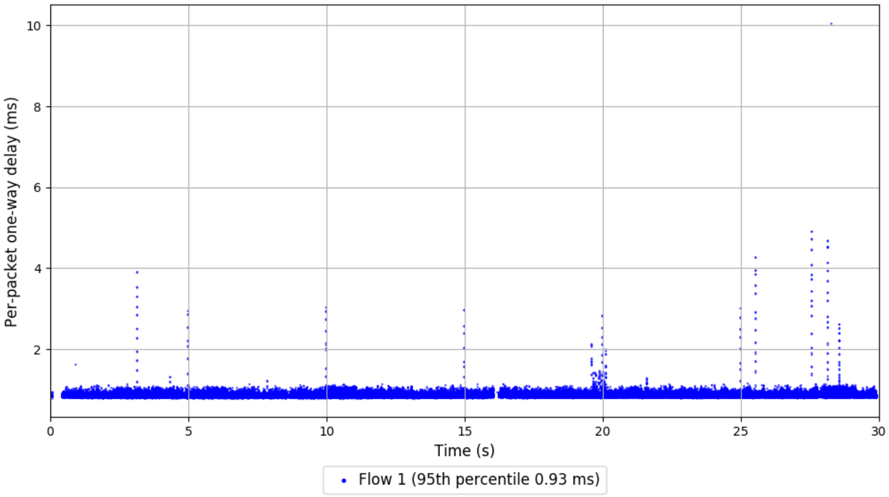




```
Run 5: Statistics of QUIC Cubic

Start at: 2019-10-02 19:51:54
End at: 2019-10-02 19:52:24
Local clock offset: 4.621 ms
Remote clock offset: -0.241 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.02 Mbit/s
95th percentile per-packet one-way delay: 0.932 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.02 Mbit/s
95th percentile per-packet one-way delay: 0.932 ms
Loss rate: 0.00%
```

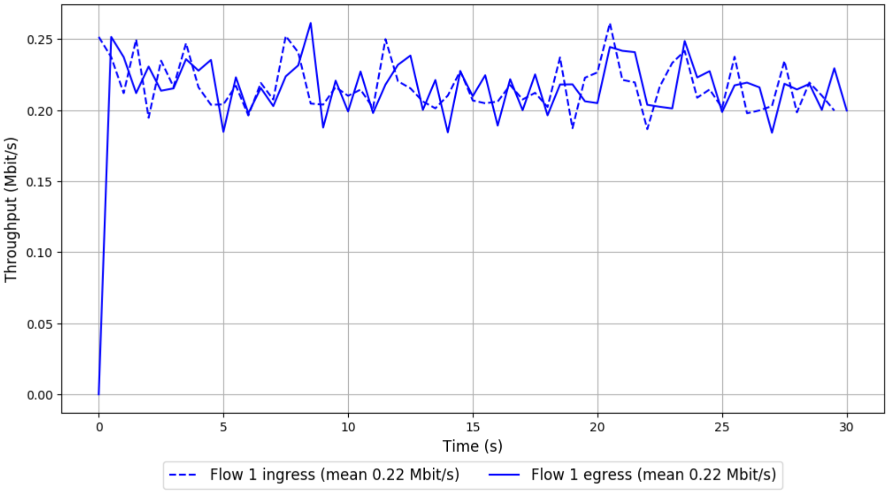
Run 5: Report of QUIC Cubic — Data Link

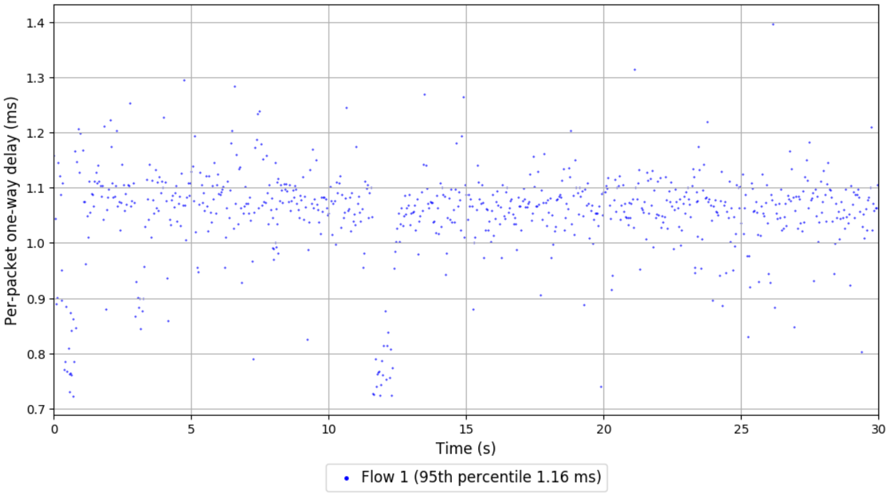




```
Run 1: Statistics of SCReAM

Start at: 2019-10-02 17:34:58
End at: 2019-10-02 17:35:28
Local clock offset: 4.45 ms
Remote clock offset: 3.541 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.00%
```

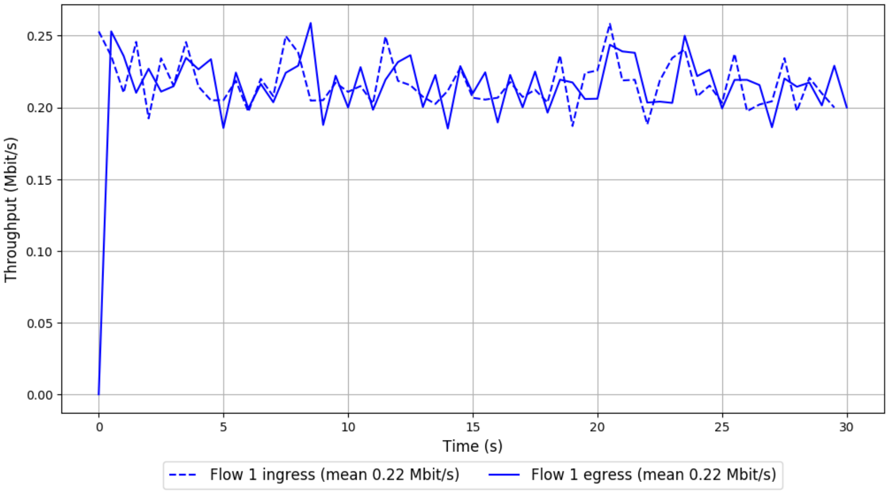
Run 1: Report of SCReAM — Data Link

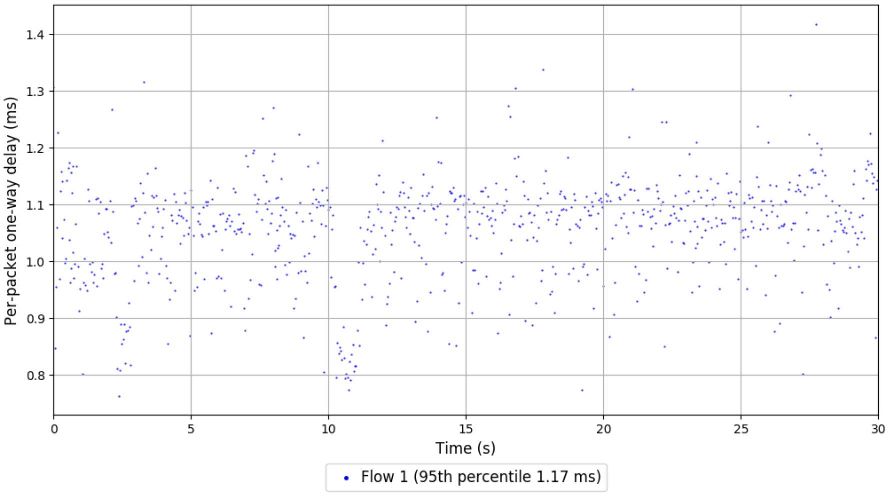




```
Run 2: Statistics of SCReAM

Start at: 2019-10-02 18:07:30
End at: 2019-10-02 18:08:00
Local clock offset: 4.284 ms
Remote clock offset: 3.61 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.00%
```

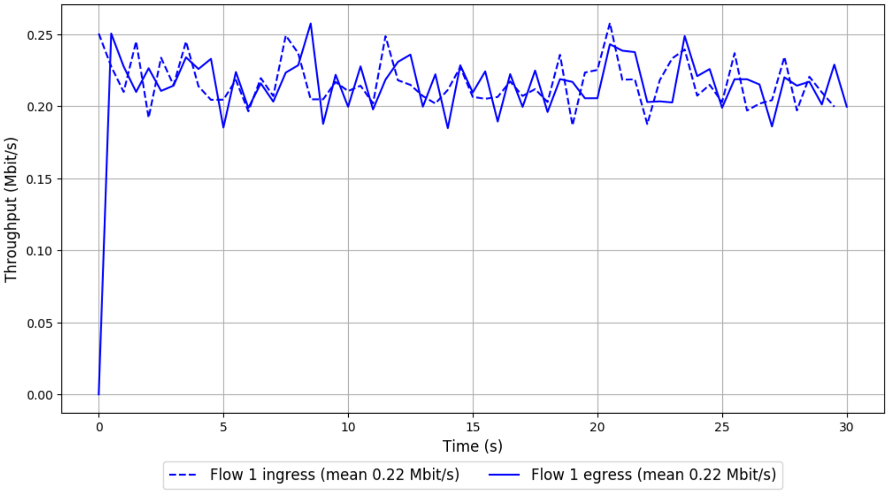
Run 2: Report of SCReAM — Data Link

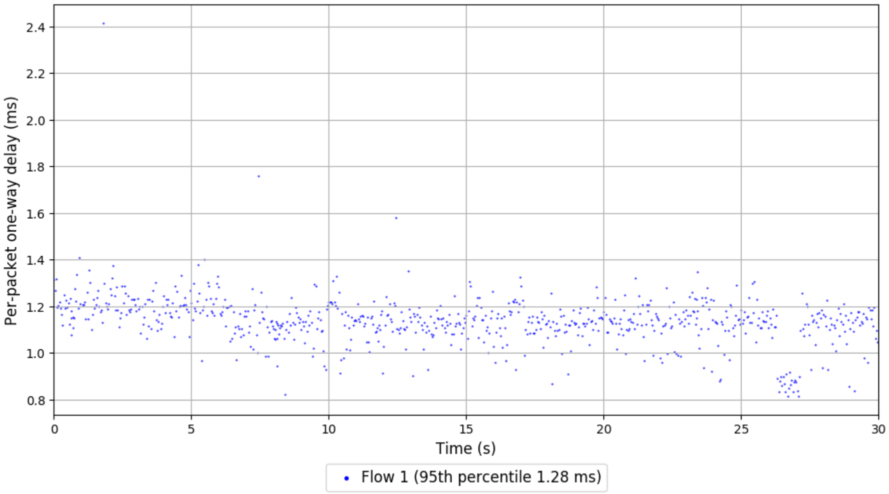




```
Run 3: Statistics of SCReAM

Start at: 2019-10-02 18:40:43
End at: 2019-10-02 18:41:13
Local clock offset: 4.537 ms
Remote clock offset: -0.482 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.00%
```

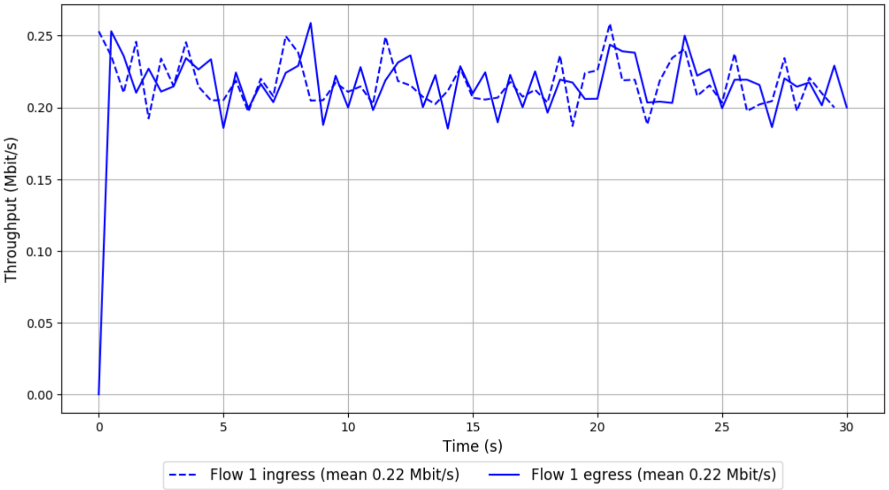
Run 3: Report of SCReAM — Data Link

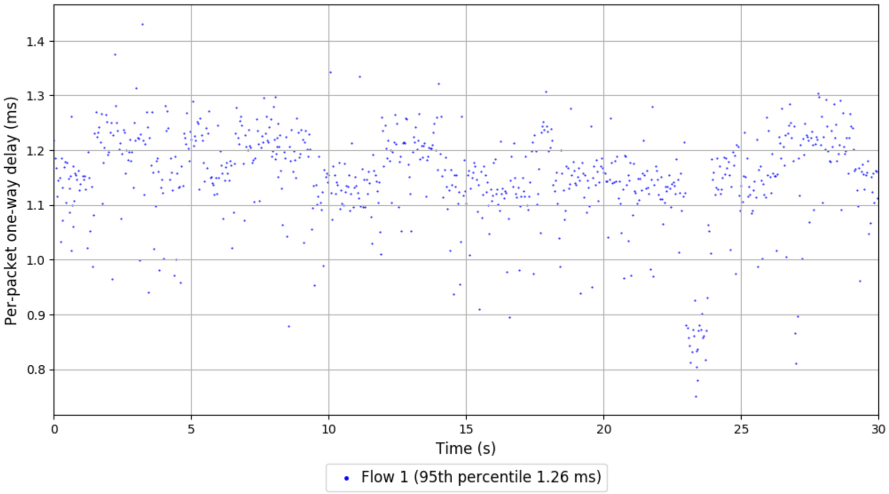




```
Run 4: Statistics of SCReAM

Start at: 2019-10-02 19:14:17
End at: 2019-10-02 19:14:47
Local clock offset: 4.293 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.00%
```

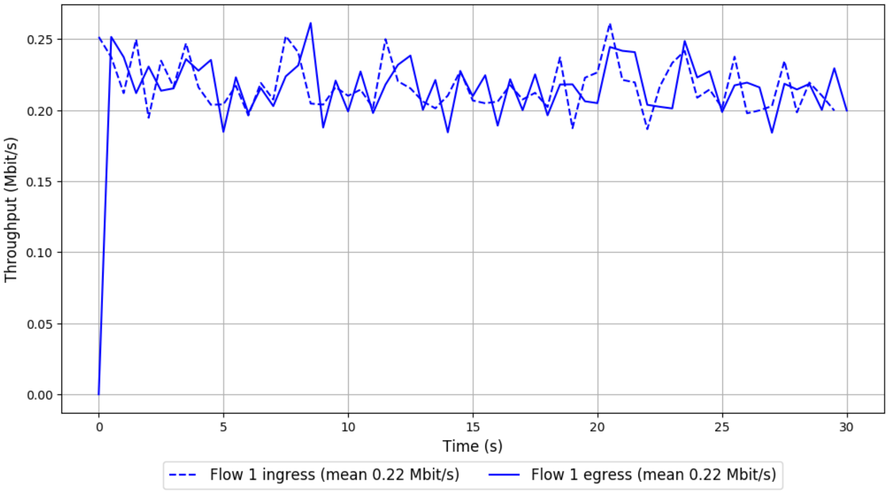
Run 4: Report of SCReAM — Data Link

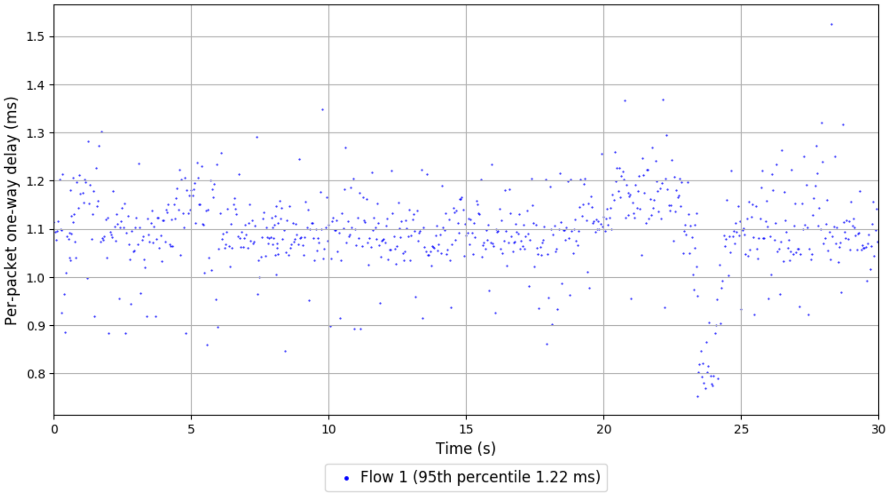




```
Run 5: Statistics of SCReAM

Start at: 2019-10-02 19:47:46
End at: 2019-10-02 19:48:16
Local clock offset: 4.586 ms
Remote clock offset: -0.233 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.00%
```

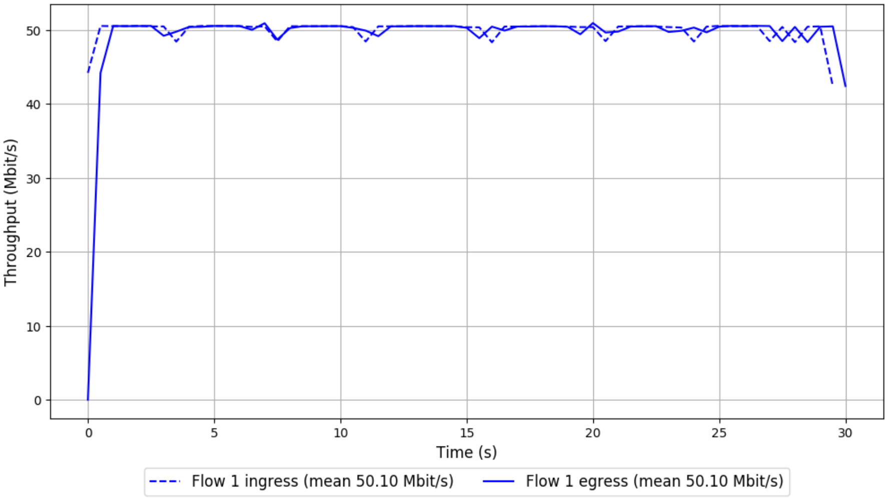
Run 5: Report of SCReAM — Data Link

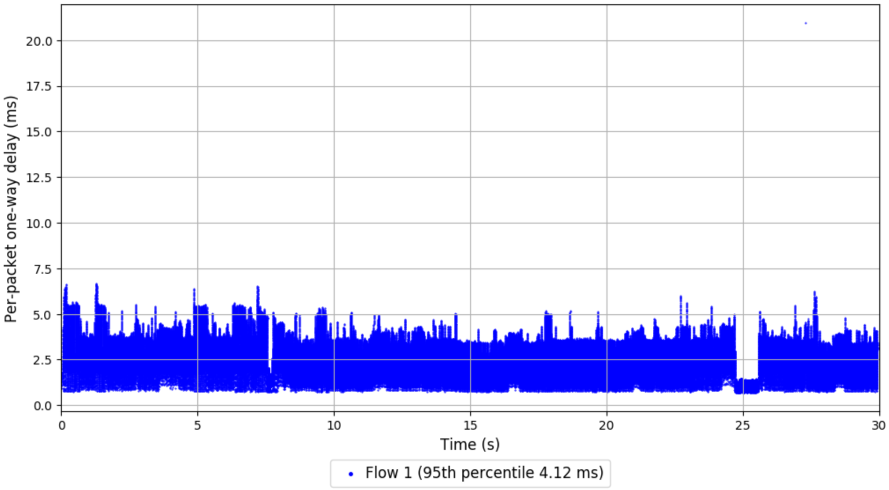




```
Run 1: Statistics of Sprout

Start at: 2019-10-02 17:43:15
End at: 2019-10-02 17:43:45
Local clock offset: 4.434 ms
Remote clock offset: 3.377 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 4.120 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 4.120 ms
Loss rate: 0.00%
```

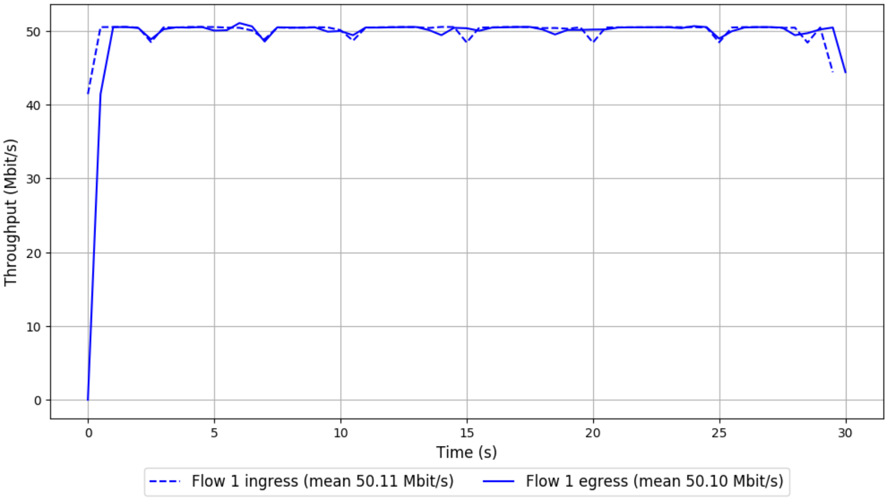
Run 1: Report of Sprout — Data Link

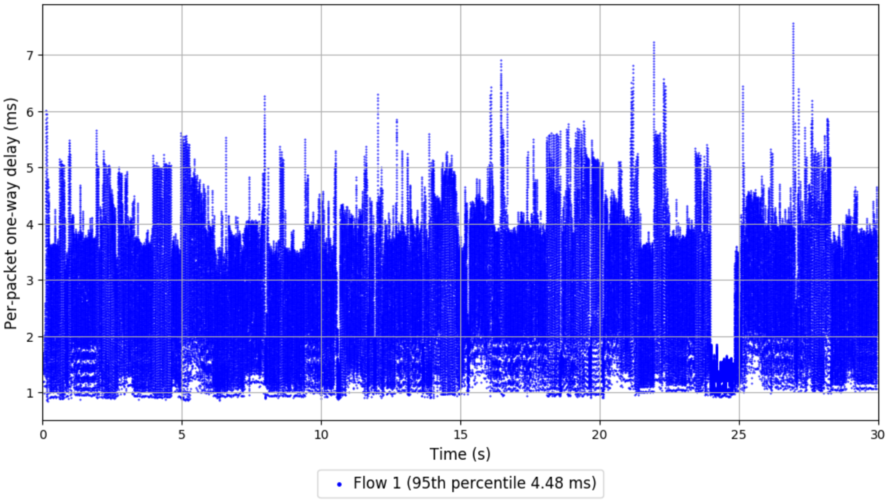




```
Run 2: Statistics of Sprout

Start at: 2019-10-02 18:15:46
End at: 2019-10-02 18:16:16
Local clock offset: 4.494 ms
Remote clock offset: 2.344 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 4.476 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 4.476 ms
Loss rate: 0.01%
```

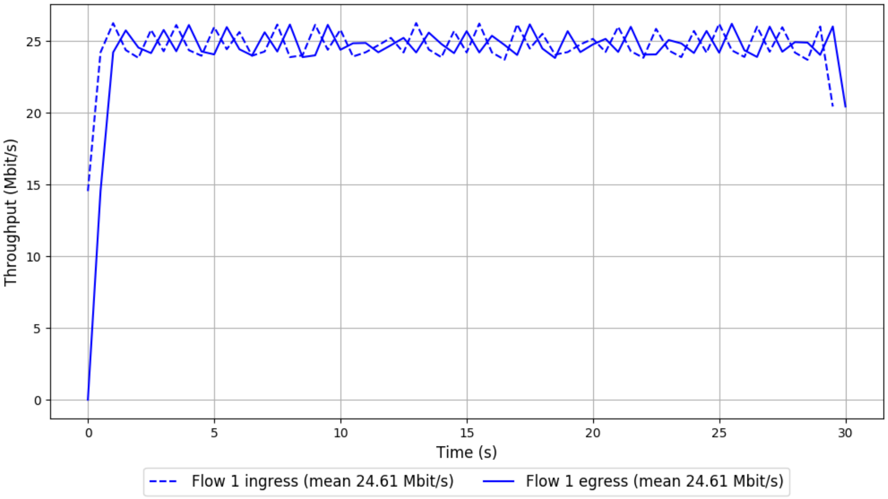
Run 2: Report of Sprout — Data Link

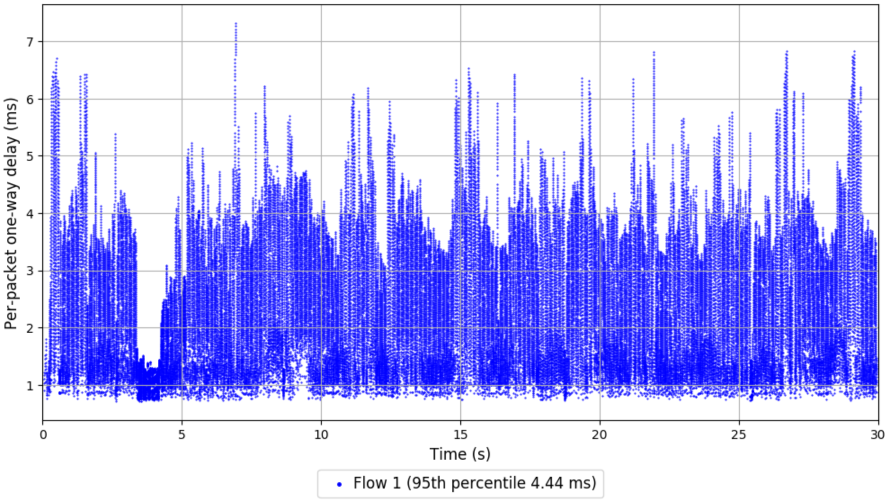




```
Run 3: Statistics of Sprout

Start at: 2019-10-02 18:49:06
End at: 2019-10-02 18:49:36
Local clock offset: 4.637 ms
Remote clock offset: -0.526 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.61 Mbit/s
95th percentile per-packet one-way delay: 4.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.61 Mbit/s
95th percentile per-packet one-way delay: 4.438 ms
Loss rate: 0.00%
```

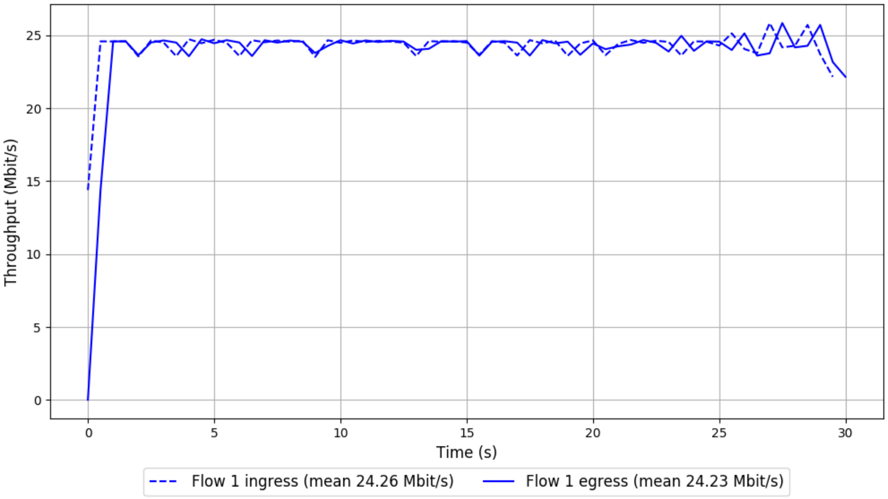
Run 3: Report of Sprout — Data Link

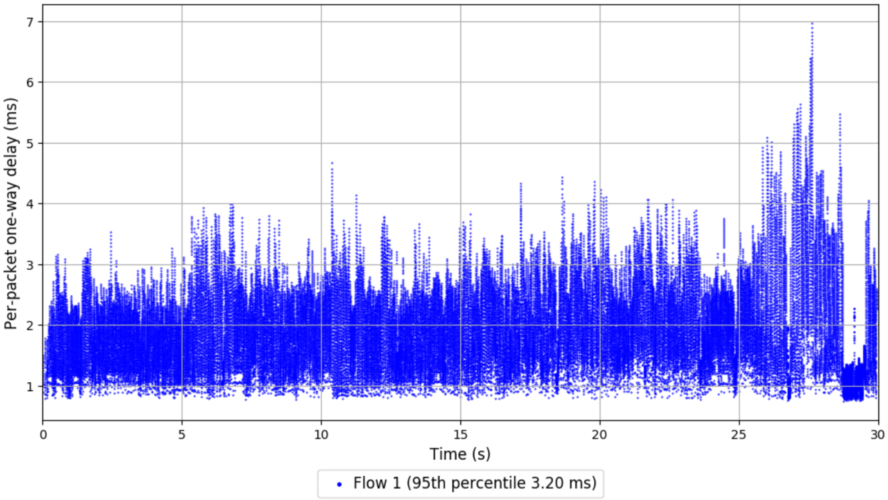




```
Run 4: Statistics of Sprout

Start at: 2019-10-02 19:22:41
End at: 2019-10-02 19:23:11
Local clock offset: 4.323 ms
Remote clock offset: -0.278 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 3.198 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 3.198 ms
Loss rate: 0.10%
```

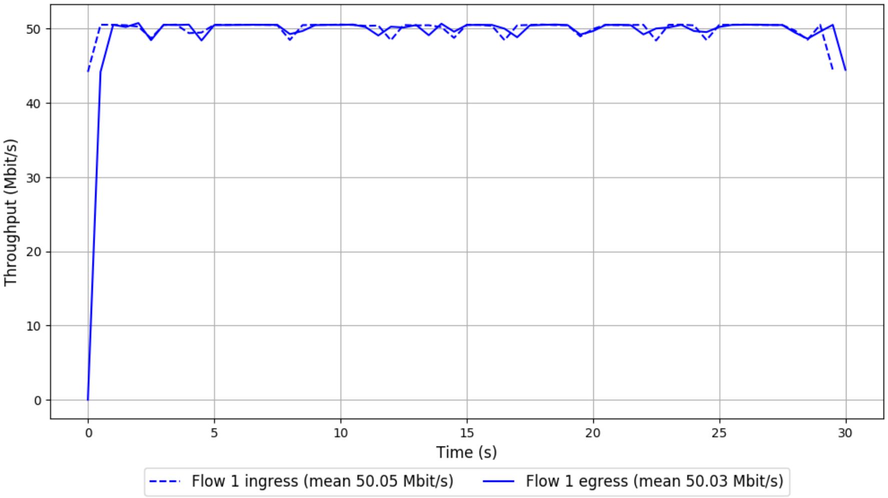
Run 4: Report of Sprout — Data Link

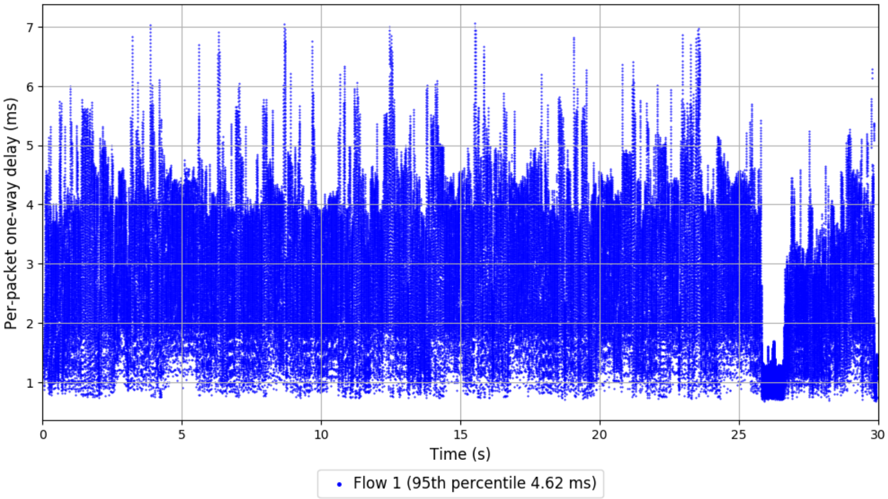




```
Run 5: Statistics of Sprout

Start at: 2019-10-02 19:56:14
End at: 2019-10-02 19:56:44
Local clock offset: 4.555 ms
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 4.618 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 4.618 ms
Loss rate: 0.04%
```

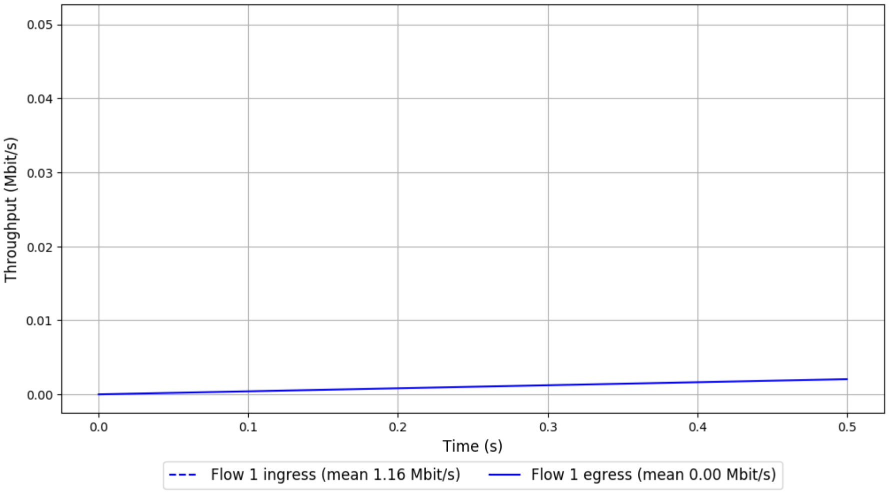
Run 5: Report of Sprout — Data Link

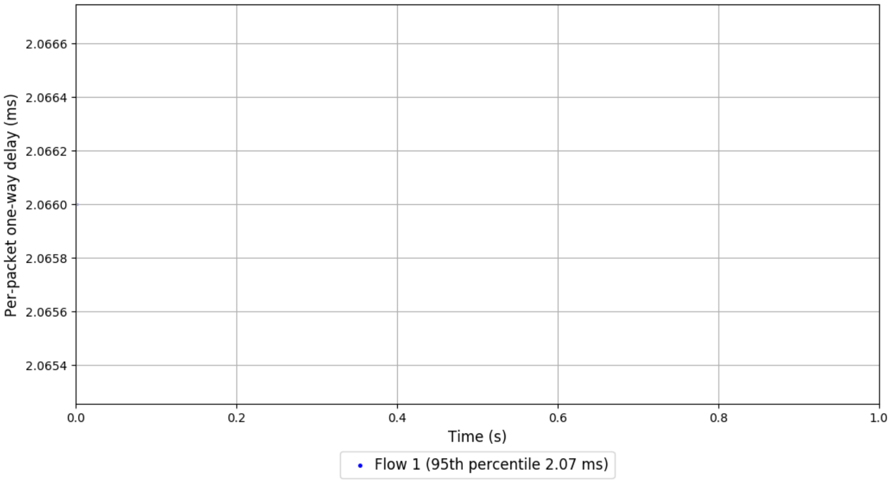




```
Run 1: Statistics of TaoVA-100x

Start at: 2019-10-02 17:26:38
End at: 2019-10-02 17:27:08
Local clock offset: 3.954 ms
Remote clock offset: 3.345 ms
```

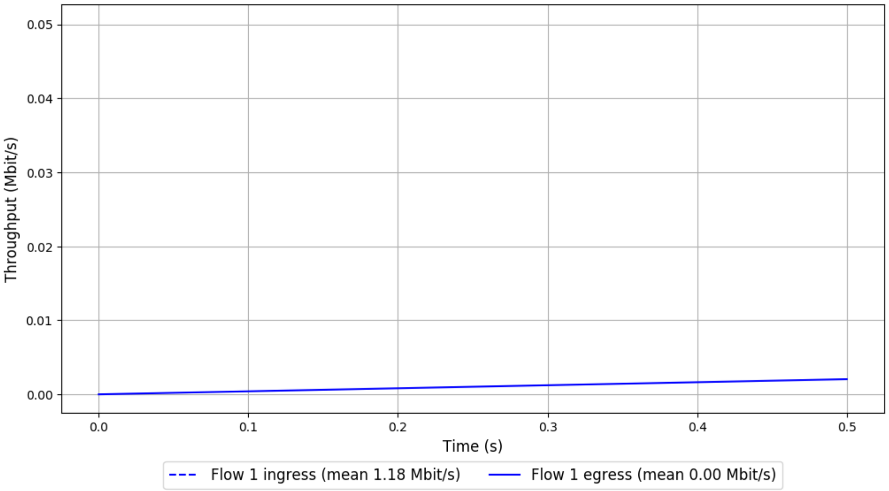
Run 1: Report of TaoVA-100x — Data Link

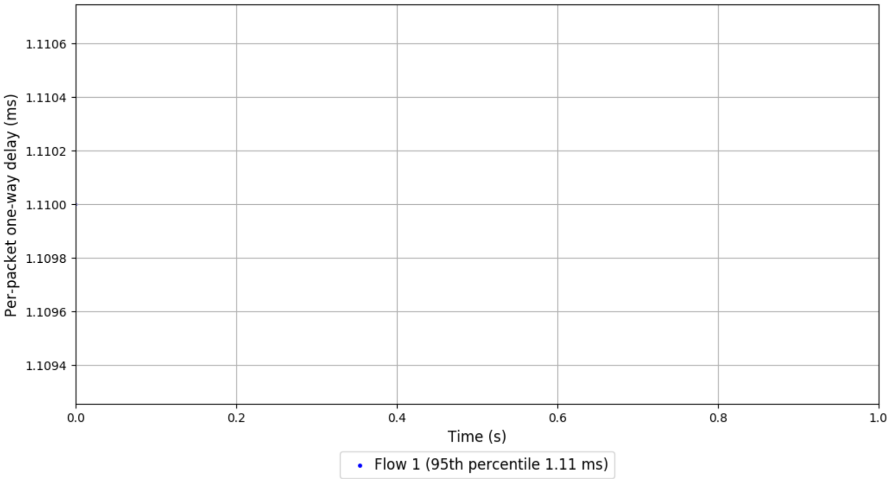




```
Run 2: Statistics of TaoVA-100x

Start at: 2019-10-02 17:59:20
End at: 2019-10-02 17:59:50
Local clock offset: 4.243 ms
Remote clock offset: 3.43 ms
```

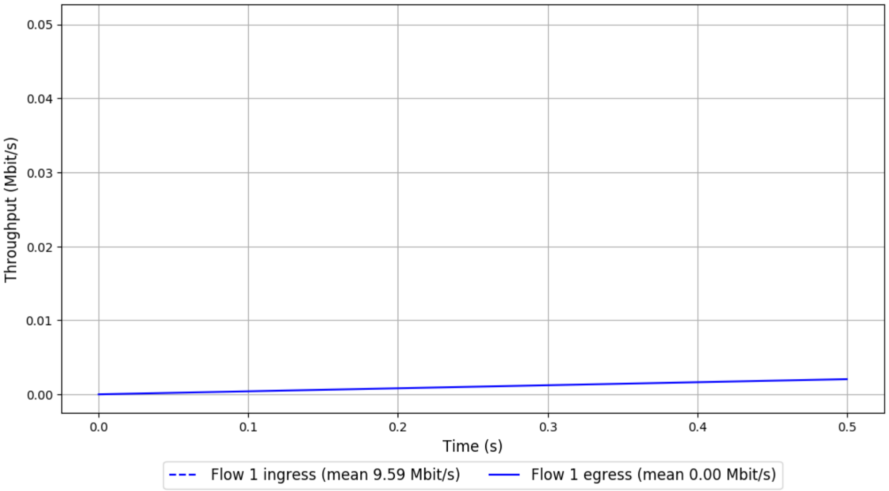
Run 2: Report of TaoVA-100x — Data Link

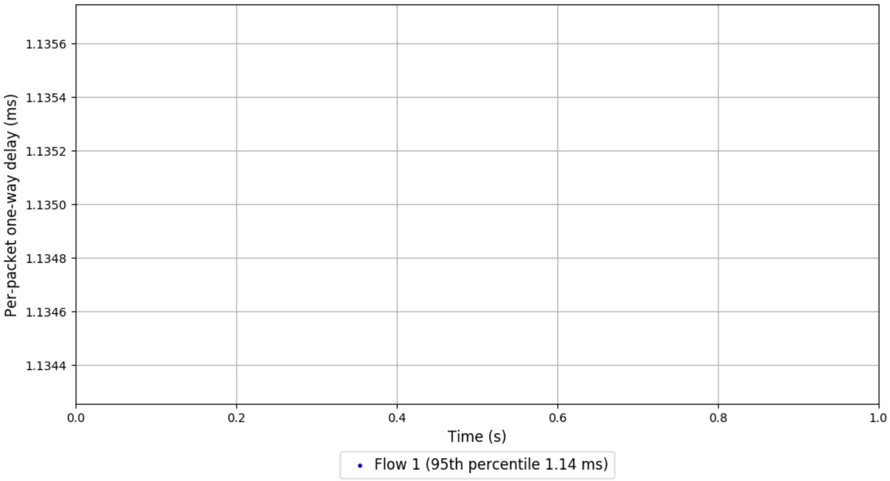




```
Run 3: Statistics of TaoVA-100x

Start at: 2019-10-02 18:32:21
End at: 2019-10-02 18:32:51
Local clock offset: 4.518 ms
Remote clock offset: -0.186 ms
```

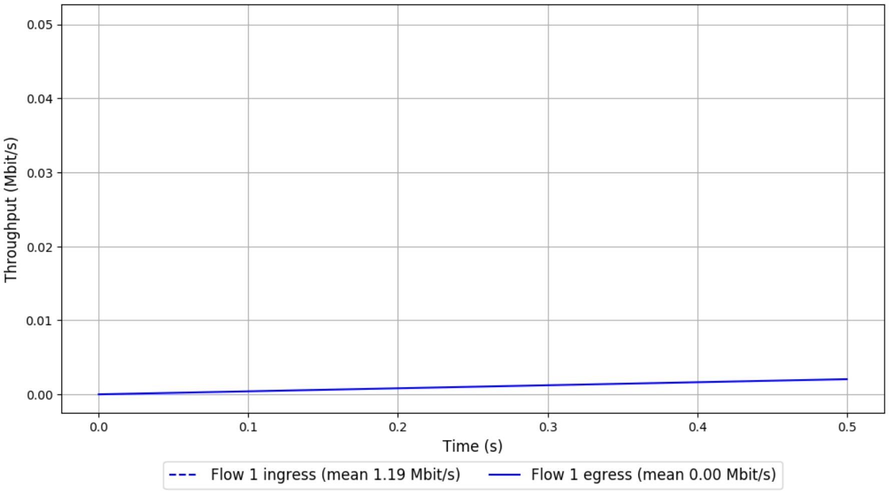
Run 3: Report of TaoVA-100x — Data Link

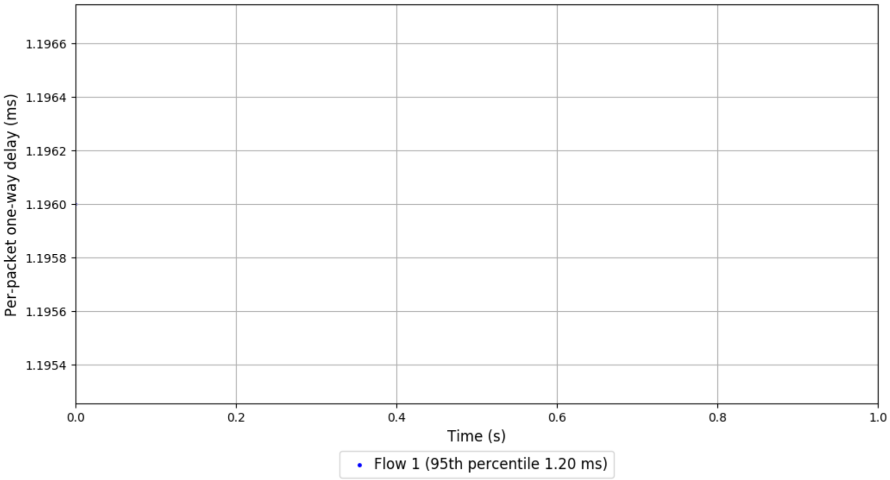




```
Run 4: Statistics of TaoVA-100x

Start at: 2019-10-02 19:06:05
End at: 2019-10-02 19:06:35
Local clock offset: 4.334 ms
Remote clock offset: -0.257 ms
```

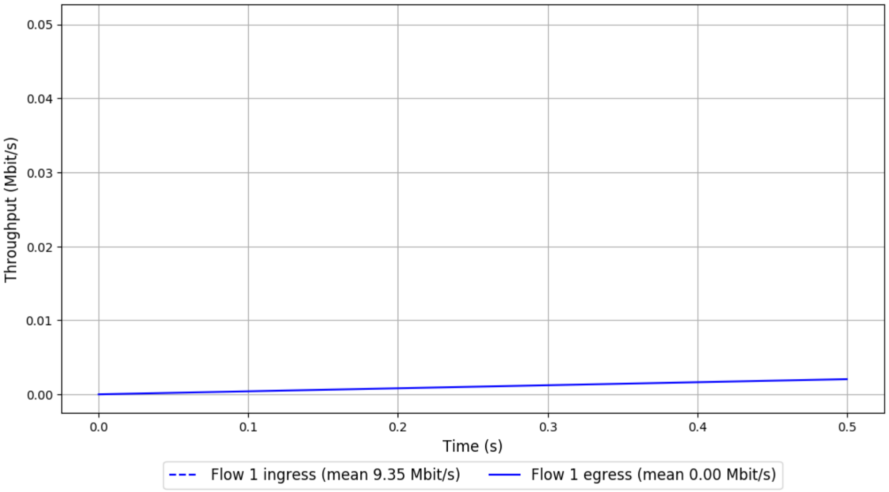
Run 4: Report of TaoVA-100x — Data Link

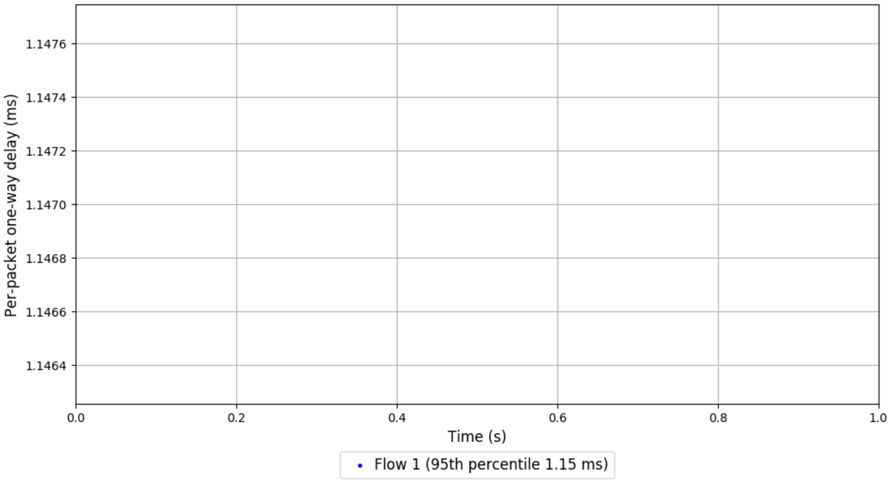




```
Run 5: Statistics of TaoVA-100x

Start at: 2019-10-02 19:39:27
End at: 2019-10-02 19:39:57
Local clock offset: 4.507 ms
Remote clock offset: -0.187 ms
```

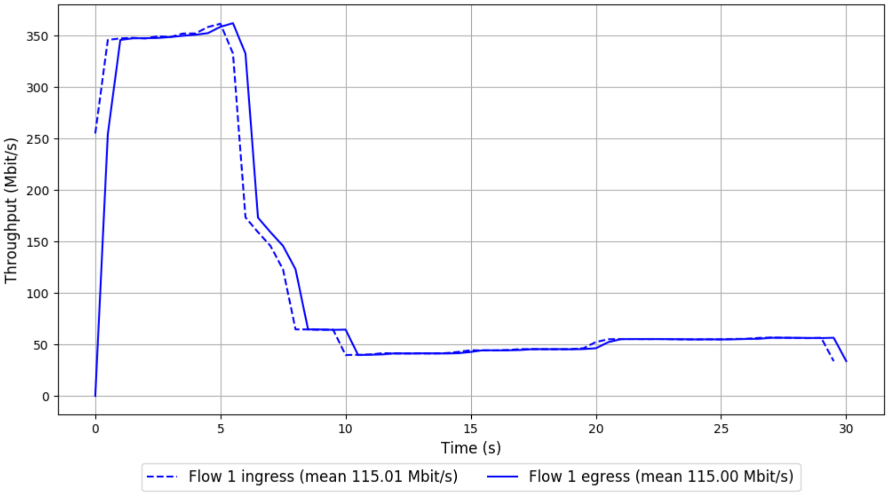
Run 5: Report of TaoVA-100x — Data Link

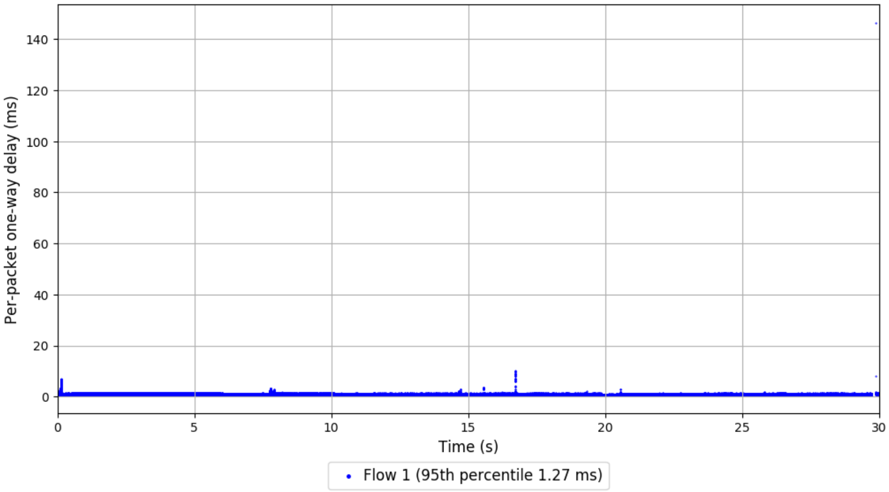




```
Run 1: Statistics of TCP Vegas

Start at: 2019-10-02 17:47:20
End at: 2019-10-02 17:47:50
Local clock offset: 4.221 ms
Remote clock offset: 3.324 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 115.00 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 115.00 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.00%
```

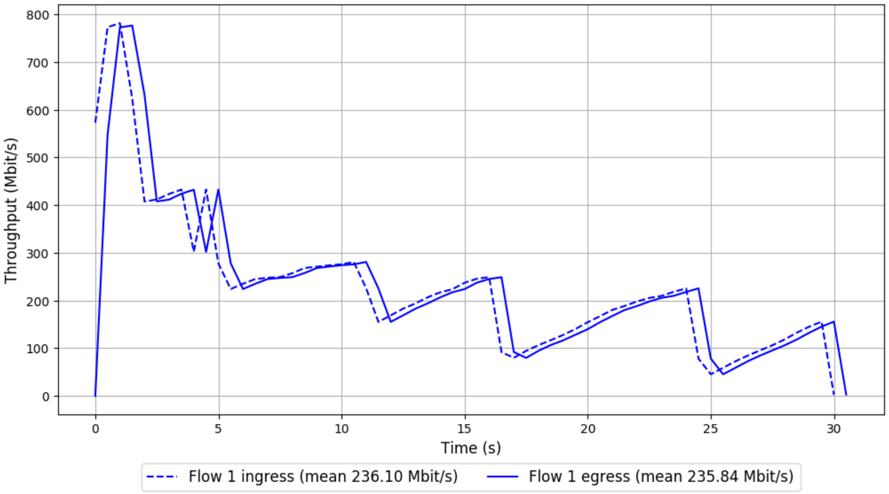
Run 1: Report of TCP Vegas — Data Link

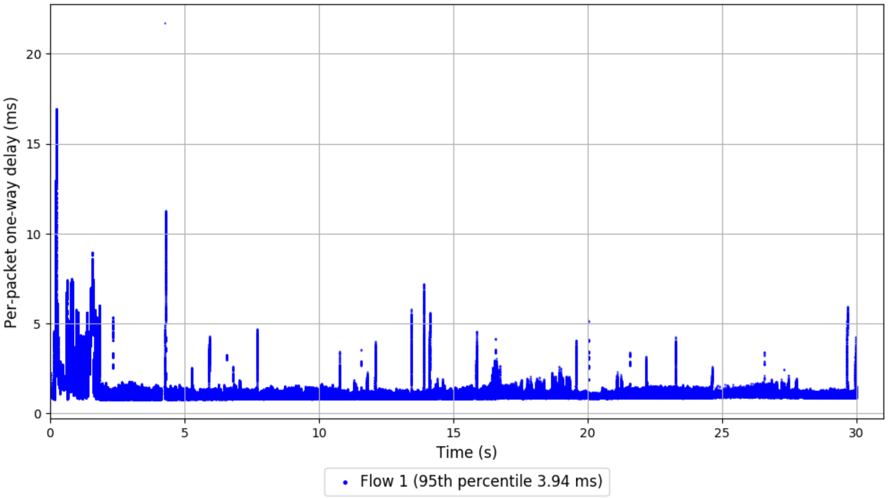




```
Run 2: Statistics of TCP Vegas

Start at: 2019-10-02 18:19:50
End at: 2019-10-02 18:20:20
Local clock offset: 4.604 ms
Remote clock offset: 1.321 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.84 Mbit/s
95th percentile per-packet one-way delay: 3.943 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 235.84 Mbit/s
95th percentile per-packet one-way delay: 3.943 ms
Loss rate: 0.16%
```

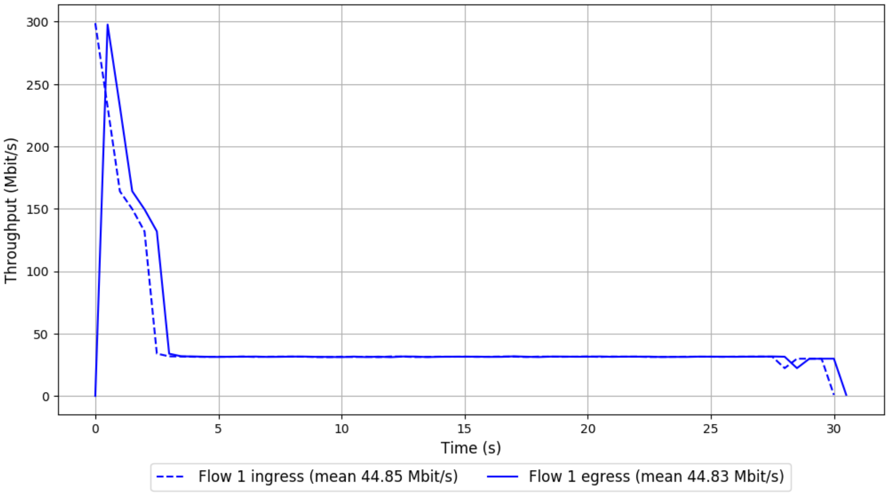
Run 2: Report of TCP Vegas — Data Link

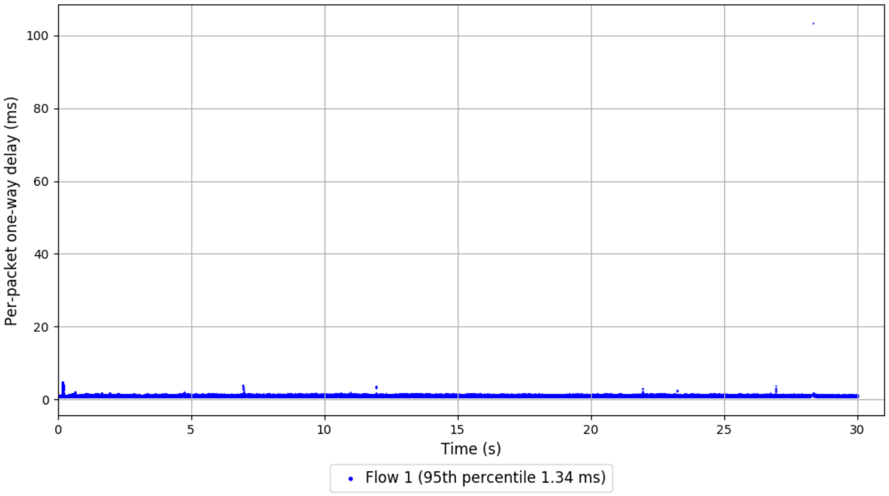




```
Run 3: Statistics of TCP Vegas

Start at: 2019-10-02 18:53:10
End at: 2019-10-02 18:53:40
Local clock offset: 4.685 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 44.83 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 0.04%
```

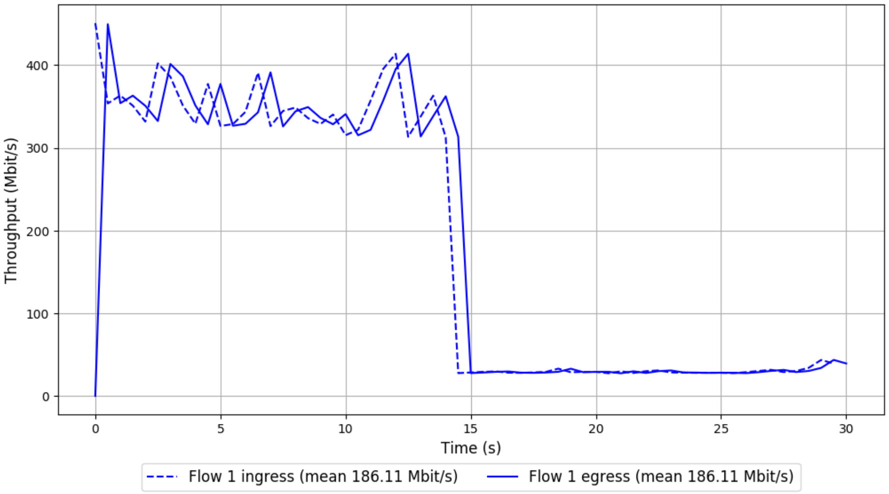
Run 3: Report of TCP Vegas — Data Link

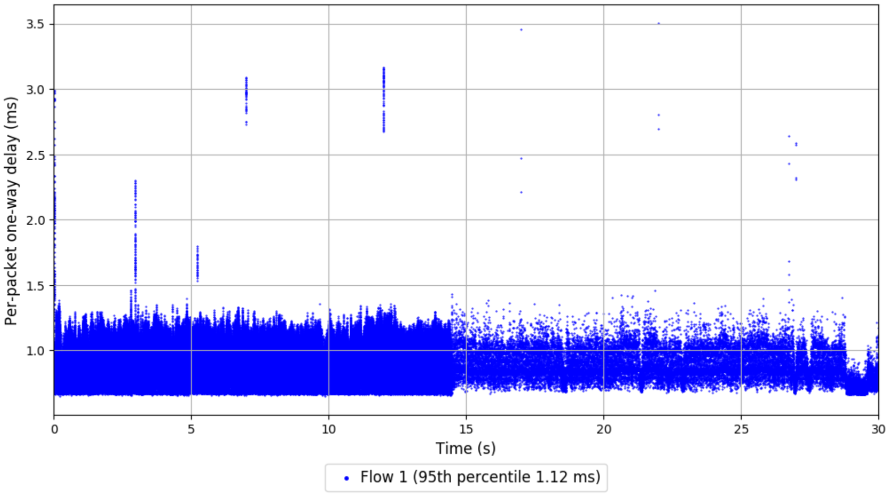




```
Run 4: Statistics of TCP Vegas

Start at: 2019-10-02 19:26:41
End at: 2019-10-02 19:27:11
Local clock offset: 4.357 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.11 Mbit/s
95th percentile per-packet one-way delay: 1.116 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.11 Mbit/s
95th percentile per-packet one-way delay: 1.116 ms
Loss rate: 0.00%
```

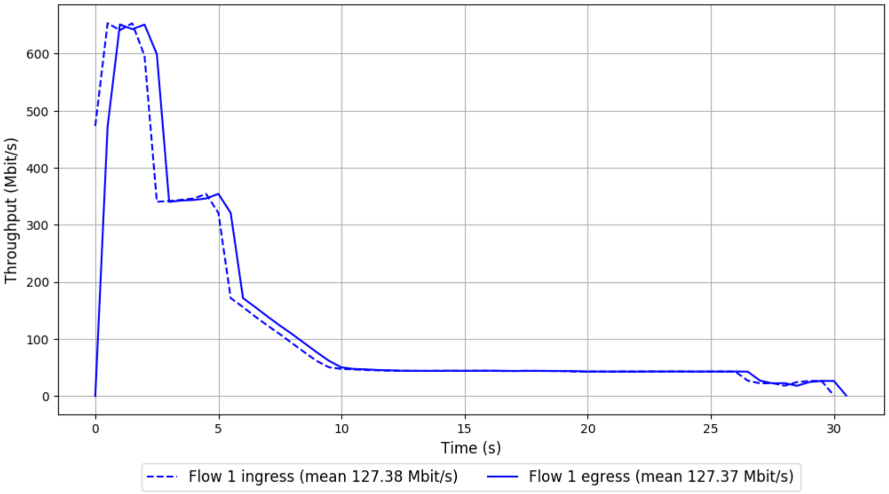
Run 4: Report of TCP Vegas — Data Link

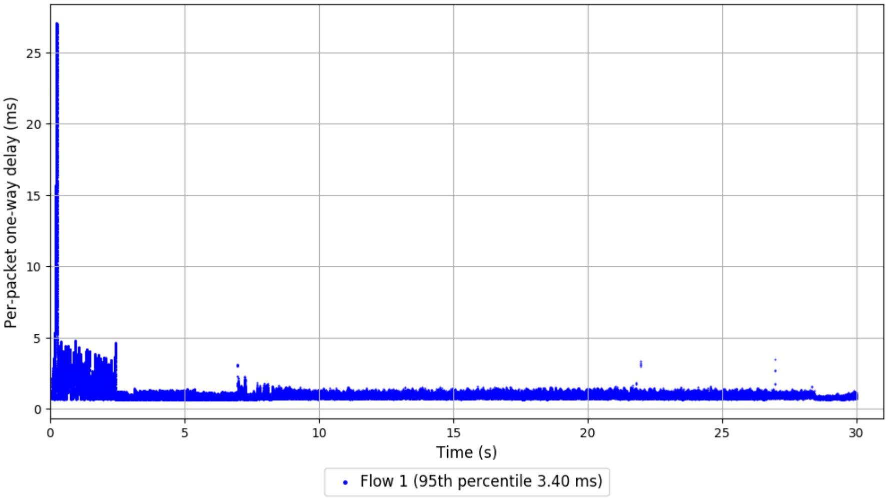




```
Run 5: Statistics of TCP Vegas

Start at: 2019-10-02 20:00:11
End at: 2019-10-02 20:00:41
Local clock offset: 4.19 ms
Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.37 Mbit/s
95th percentile per-packet one-way delay: 3.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.37 Mbit/s
95th percentile per-packet one-way delay: 3.404 ms
Loss rate: 0.00%
```

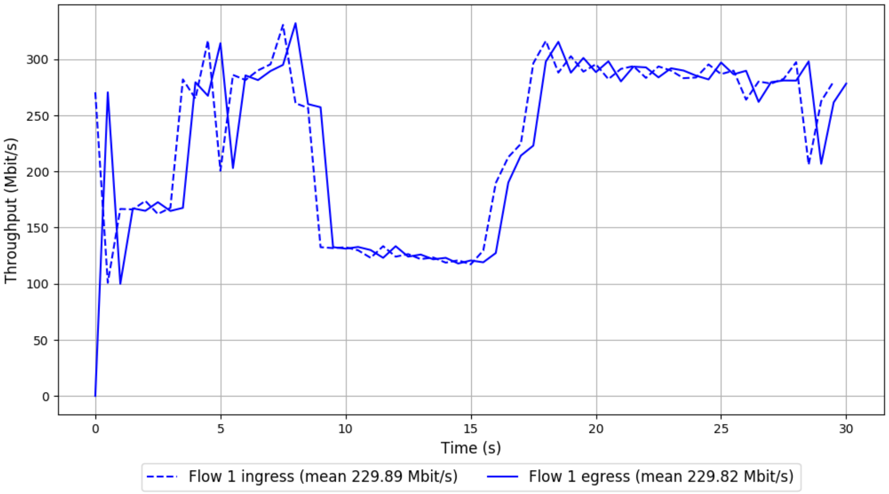
Run 5: Report of TCP Vegas — Data Link

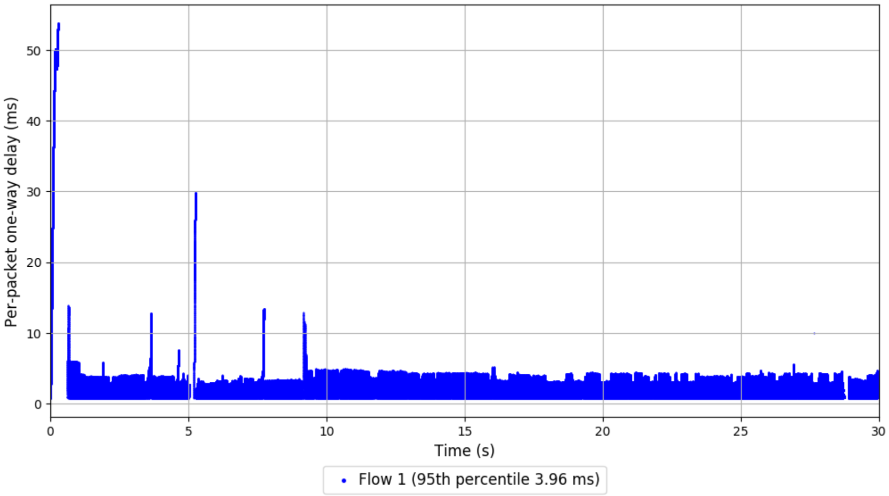




```
Run 1: Statistics of Verus

Start at: 2019-10-02 17:36:11
End at: 2019-10-02 17:36:41
Local clock offset: 4.405 ms
Remote clock offset: 3.547 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.82 Mbit/s
95th percentile per-packet one-way delay: 3.958 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 229.82 Mbit/s
95th percentile per-packet one-way delay: 3.958 ms
Loss rate: 0.03%
```

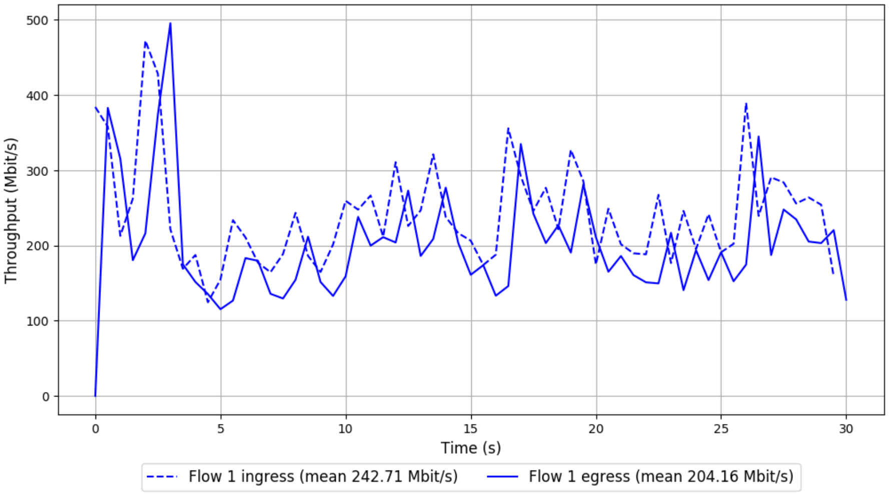
Run 1: Report of Verus — Data Link

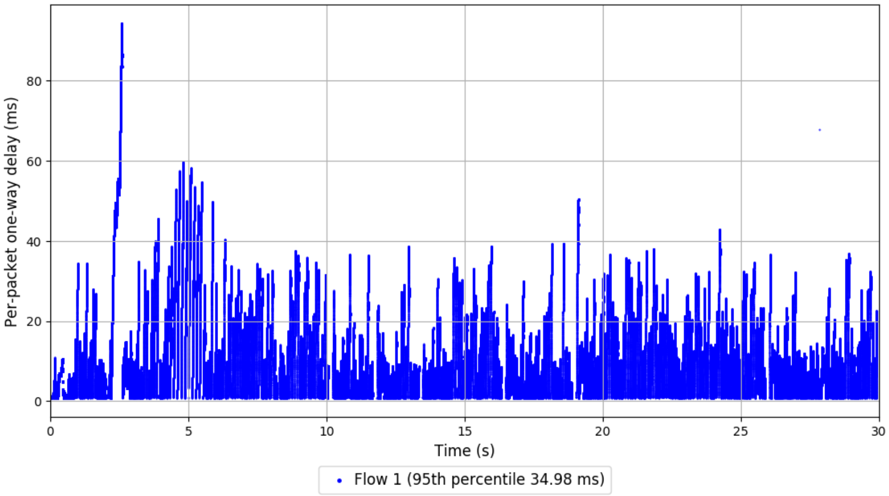




```
Run 2: Statistics of Verus

Start at: 2019-10-02 18:08:43
End at: 2019-10-02 18:09:13
Local clock offset: 4.337 ms
Remote clock offset: 3.696 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.16 Mbit/s
95th percentile per-packet one-way delay: 34.983 ms
Loss rate: 15.87%
-- Flow 1:
Average throughput: 204.16 Mbit/s
95th percentile per-packet one-way delay: 34.983 ms
Loss rate: 15.87%
```

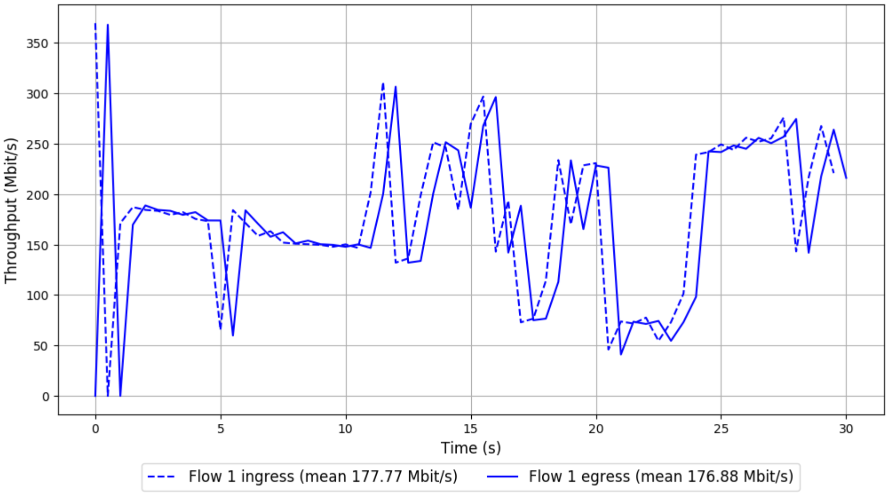
Run 2: Report of Verus — Data Link

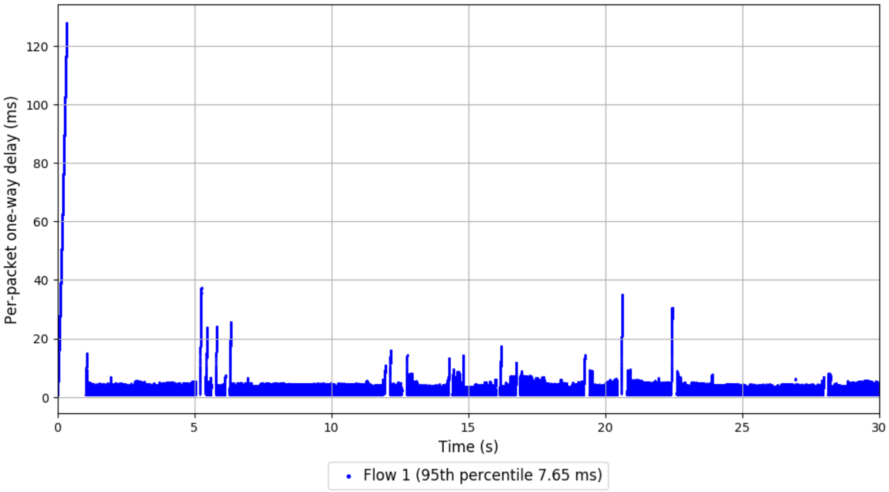




```
Run 3: Statistics of Verus

Start at: 2019-10-02 18:41:57
End at: 2019-10-02 18:42:27
Local clock offset: 4.538 ms
Remote clock offset: -0.504 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 176.88 Mbit/s
95th percentile per-packet one-way delay: 7.649 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 176.88 Mbit/s
95th percentile per-packet one-way delay: 7.649 ms
Loss rate: 0.49%
```

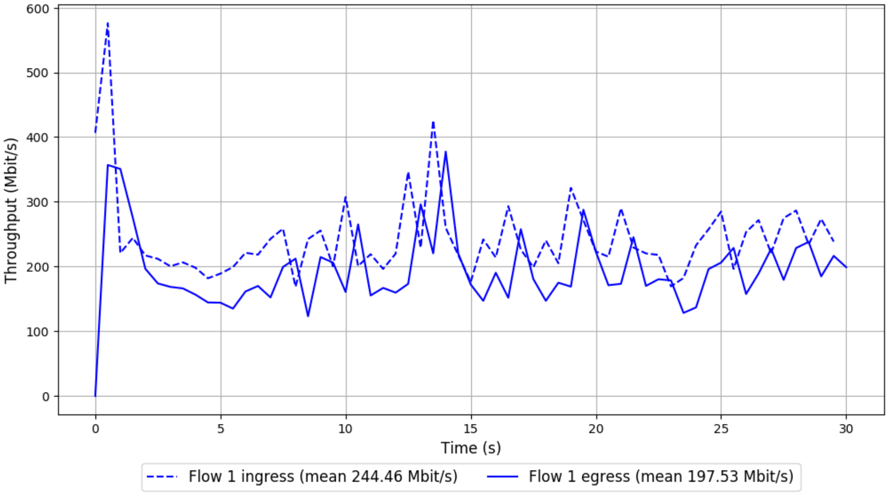
Run 3: Report of Verus — Data Link

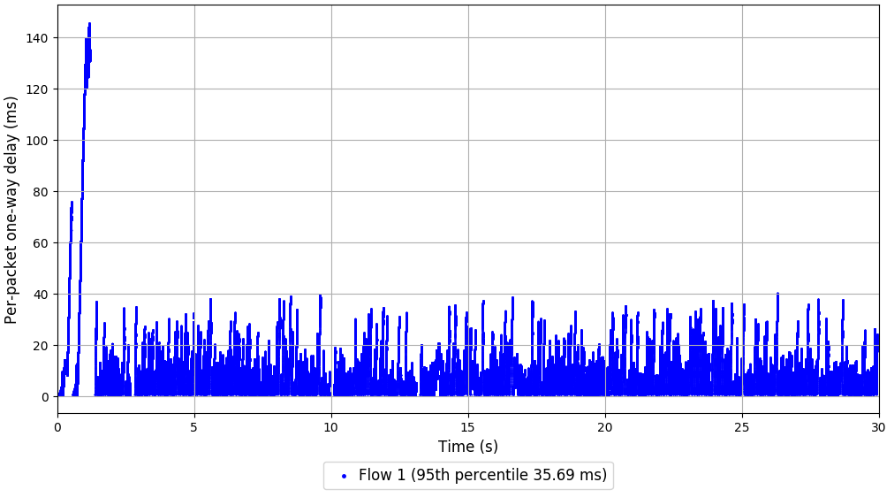




```
Run 4: Statistics of Verus

Start at: 2019-10-02 19:15:30
End at: 2019-10-02 19:16:00
Local clock offset: 4.289 ms
Remote clock offset: -0.357 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.53 Mbit/s
95th percentile per-packet one-way delay: 35.687 ms
Loss rate: 19.16%
-- Flow 1:
Average throughput: 197.53 Mbit/s
95th percentile per-packet one-way delay: 35.687 ms
Loss rate: 19.16%
```

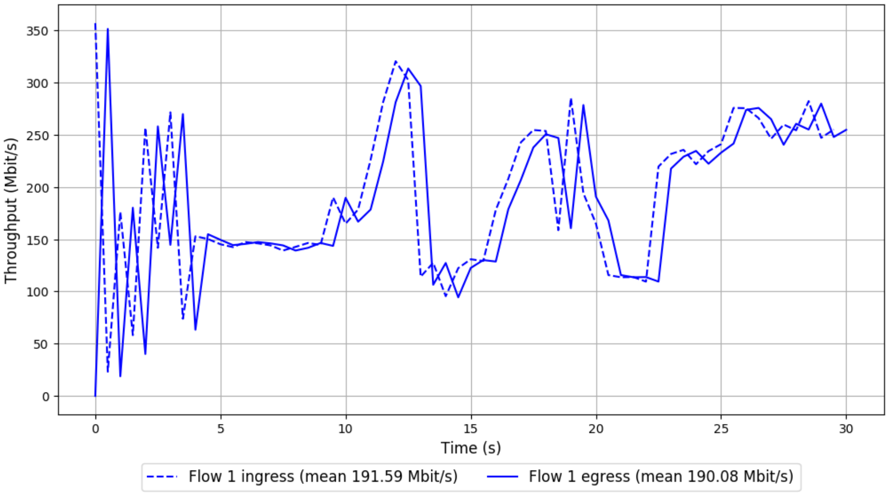
Run 4: Report of Verus — Data Link

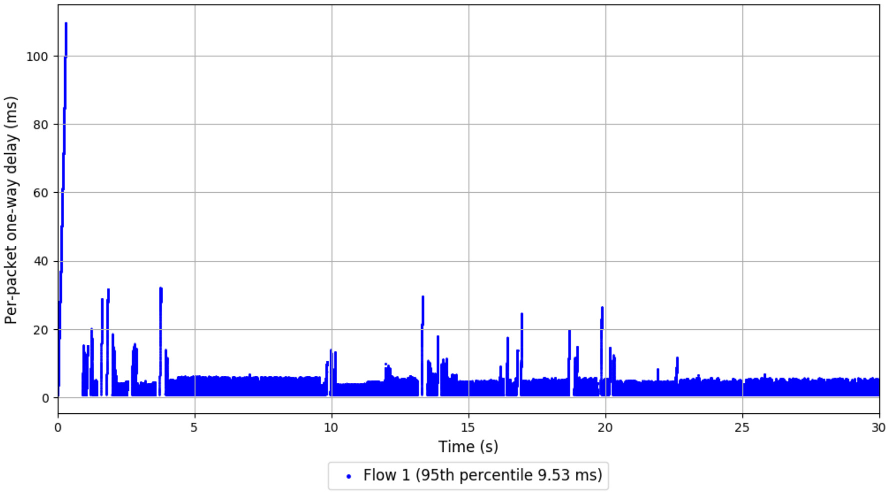




```
Run 5: Statistics of Verus

Start at: 2019-10-02 19:48:59
End at: 2019-10-02 19:49:29
Local clock offset: 4.624 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2019-10-02 21:10:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.08 Mbit/s
95th percentile per-packet one-way delay: 9.525 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 190.08 Mbit/s
95th percentile per-packet one-way delay: 9.525 ms
Loss rate: 0.79%
```

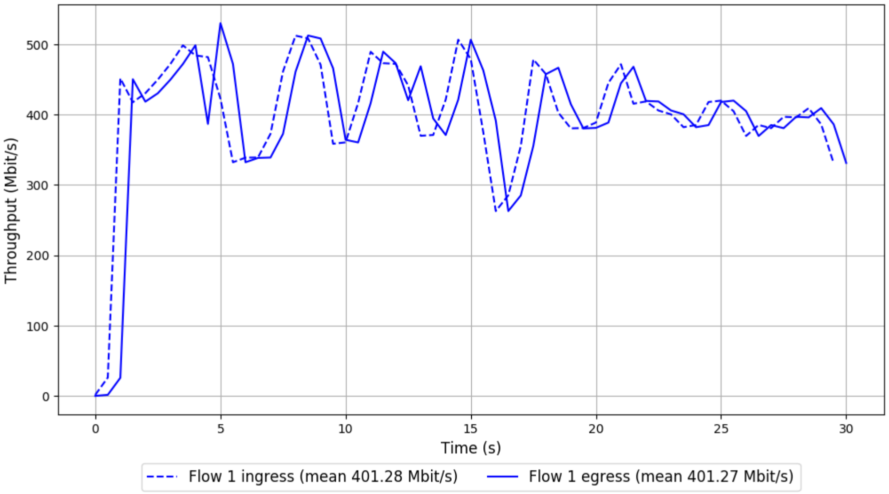
Run 5: Report of Verus — Data Link

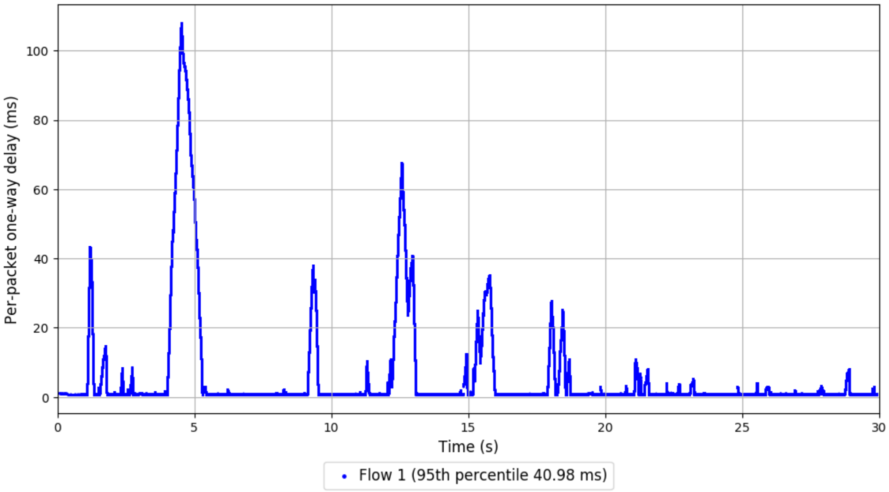




```
Run 1: Statistics of PCC-Vivace

Start at: 2019-10-02 17:40:09
End at: 2019-10-02 17:40:39
Local clock offset: 4.579 ms
Remote clock offset: 3.418 ms

# Below is generated by plot.py at 2019-10-02 21:11:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 401.27 Mbit/s
95th percentile per-packet one-way delay: 40.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 401.27 Mbit/s
95th percentile per-packet one-way delay: 40.983 ms
Loss rate: 0.00%
```

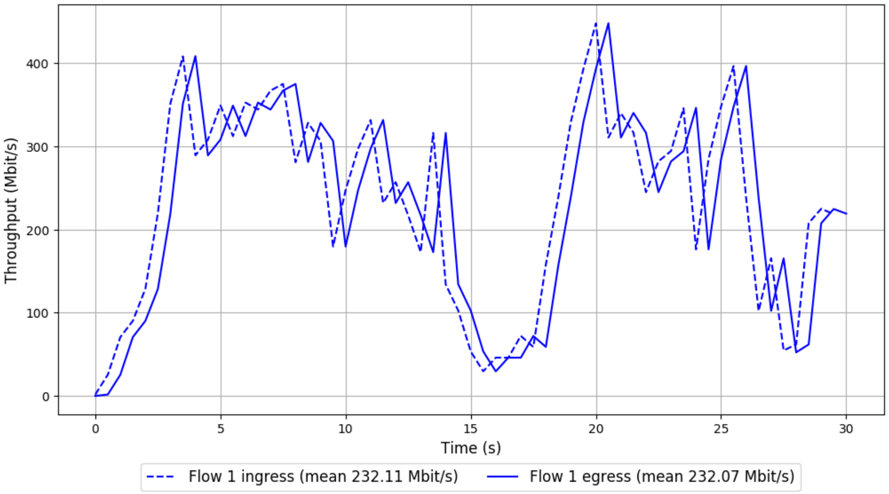
Run 1: Report of PCC-Vivace — Data Link

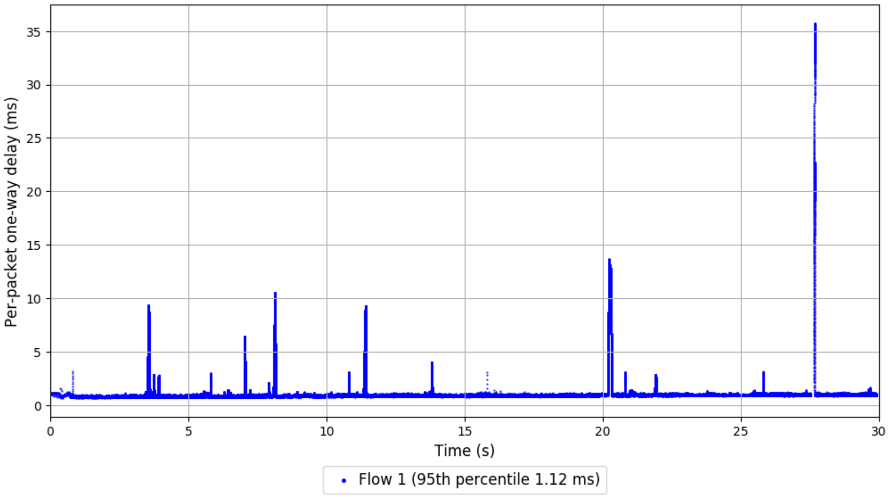




```
Run 2: Statistics of PCC-Vivace

Start at: 2019-10-02 18:12:47
End at: 2019-10-02 18:13:17
Local clock offset: 4.415 ms
Remote clock offset: 3.32 ms

# Below is generated by plot.py at 2019-10-02 21:11:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.07 Mbit/s
95th percentile per-packet one-way delay: 1.120 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 232.07 Mbit/s
95th percentile per-packet one-way delay: 1.120 ms
Loss rate: 0.02%
```

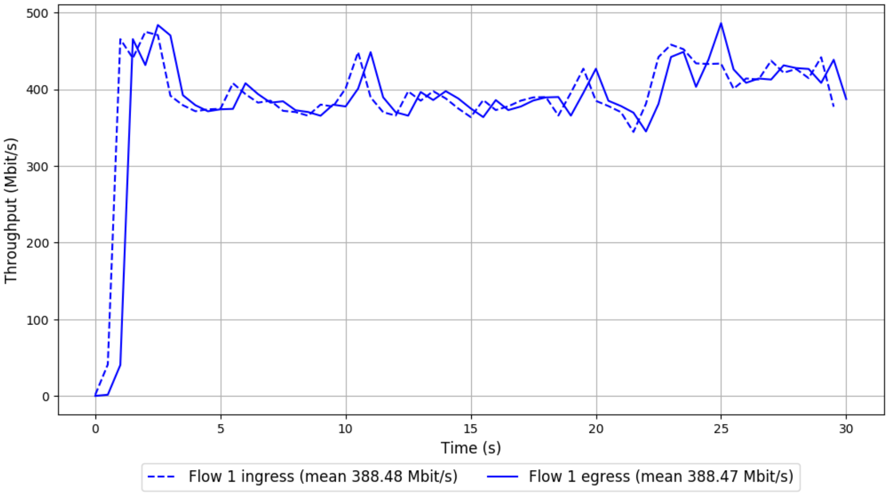
Run 2: Report of PCC-Vivace — Data Link

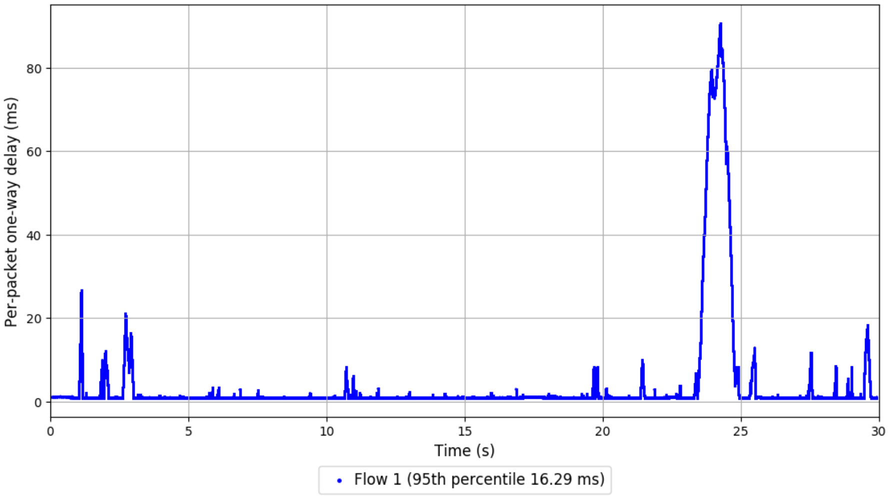




```
Run 3: Statistics of PCC-Vivace

Start at: 2019-10-02 18:46:02
End at: 2019-10-02 18:46:32
Local clock offset: 4.574 ms
Remote clock offset: -0.665 ms

# Below is generated by plot.py at 2019-10-02 21:11:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 388.47 Mbit/s
95th percentile per-packet one-way delay: 16.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 388.47 Mbit/s
95th percentile per-packet one-way delay: 16.290 ms
Loss rate: 0.00%
```

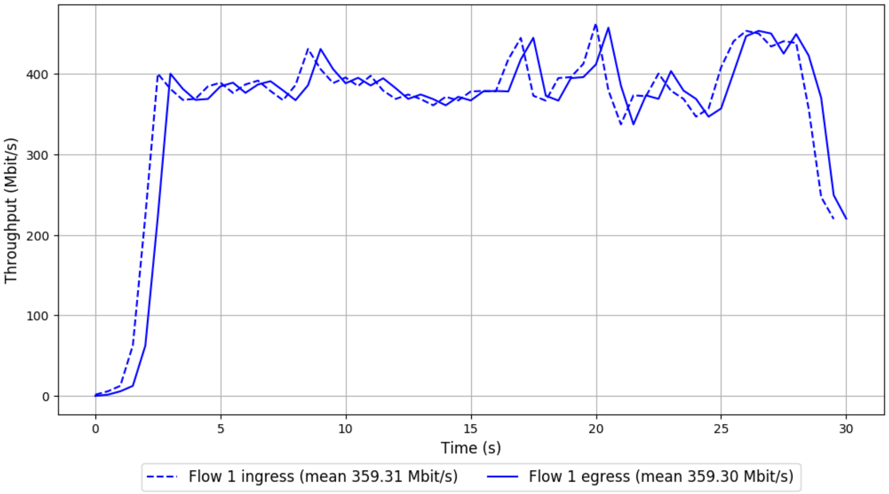
Run 3: Report of PCC-Vivace — Data Link

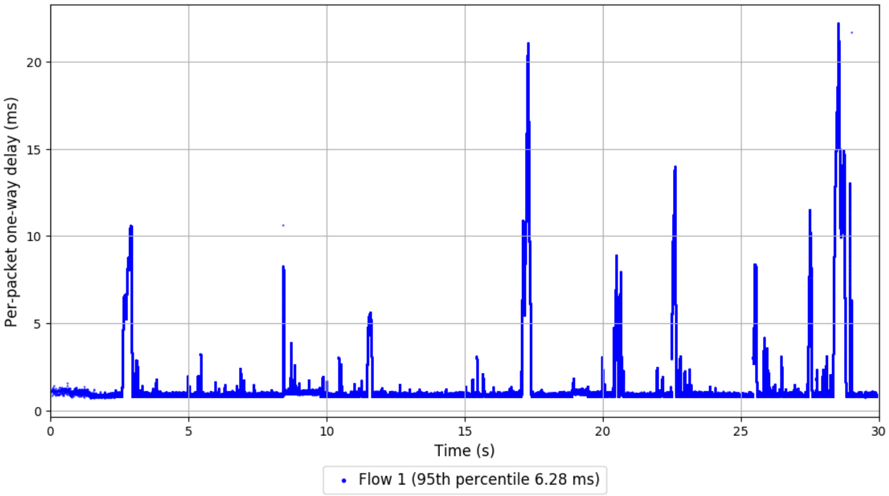




```
Run 4: Statistics of PCC-Vivace

Start at: 2019-10-02 19:19:36
End at: 2019-10-02 19:20:06
Local clock offset: 4.318 ms
Remote clock offset: -0.363 ms

# Below is generated by plot.py at 2019-10-02 21:11:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 359.30 Mbit/s
95th percentile per-packet one-way delay: 6.276 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 359.30 Mbit/s
95th percentile per-packet one-way delay: 6.276 ms
Loss rate: 0.00%
```

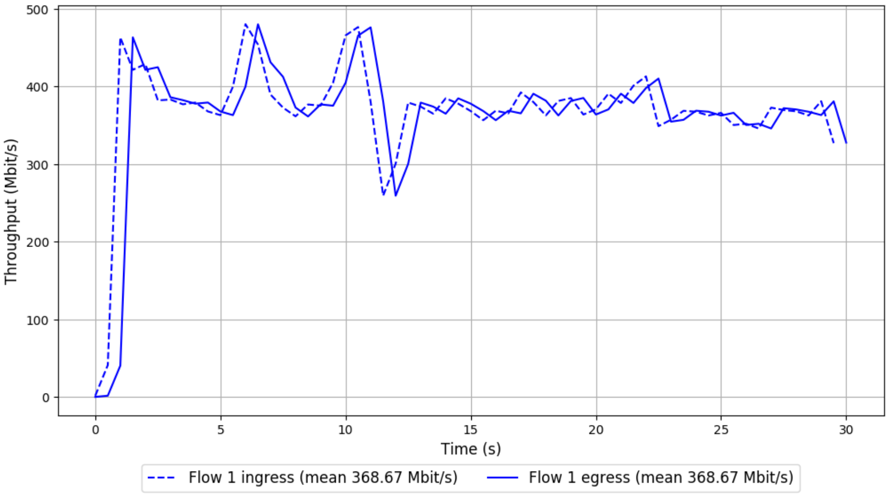
Run 4: Report of PCC-Vivace — Data Link

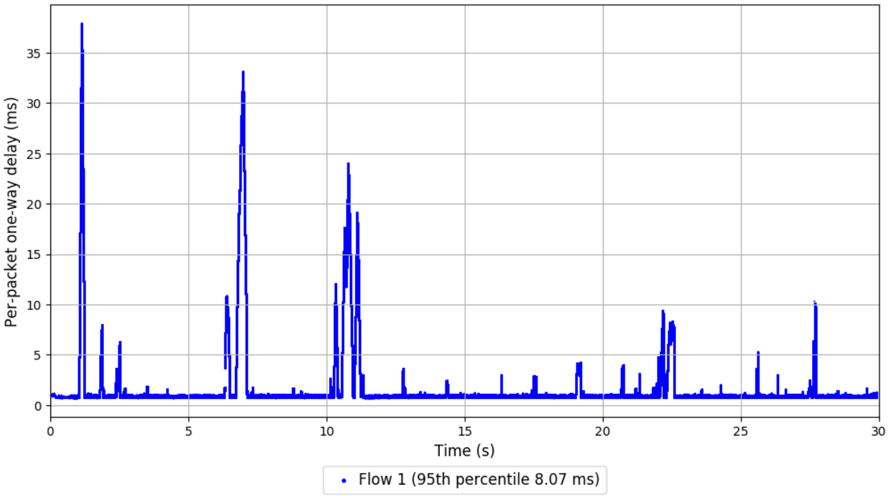




```
Run 5: Statistics of PCC-Vivace

Start at: 2019-10-02 19:53:09
End at: 2019-10-02 19:53:40
Local clock offset: 4.677 ms
Remote clock offset: -0.282 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 368.67 Mbit/s
95th percentile per-packet one-way delay: 8.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 368.67 Mbit/s
95th percentile per-packet one-way delay: 8.066 ms
Loss rate: 0.00%
```

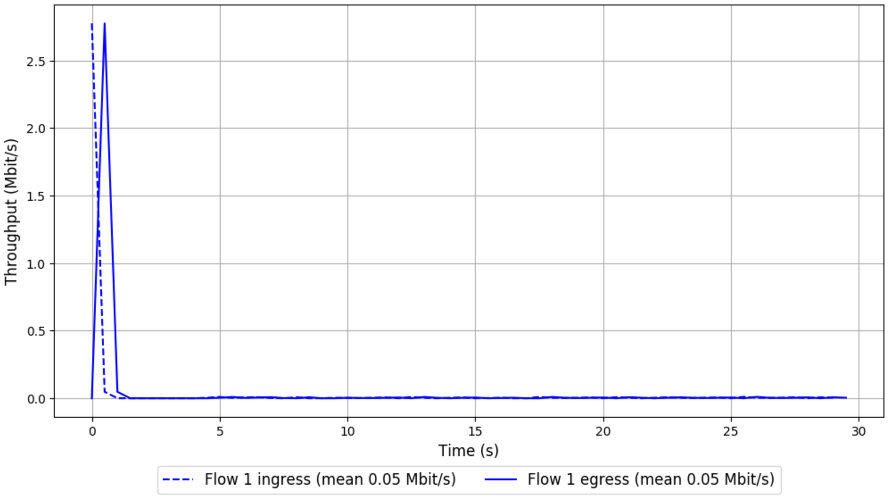
Run 5: Report of PCC-Vivace — Data Link

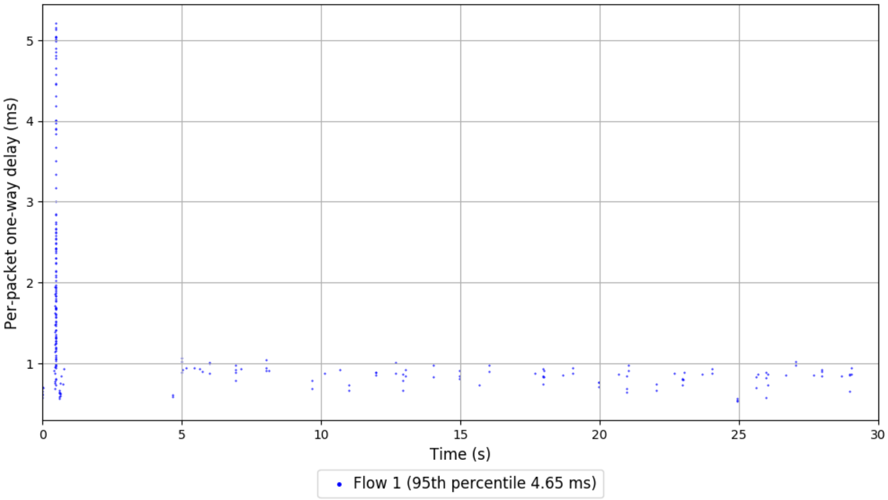




```
Run 1: Statistics of WebRTC media

Start at: 2019-10-02 17:33:45
End at: 2019-10-02 17:34:15
Local clock offset: 4.524 ms
Remote clock offset: 3.439 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.653 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.653 ms
Loss rate: 0.00%
```

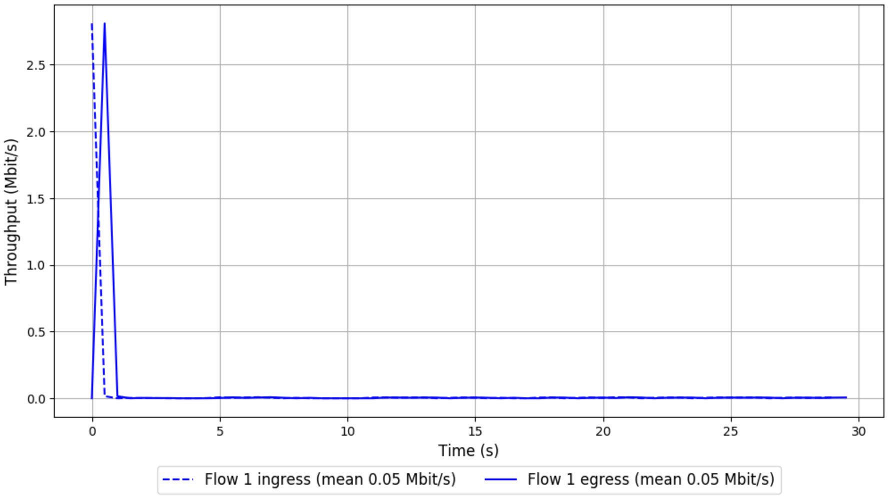
Run 1: Report of WebRTC media — Data Link

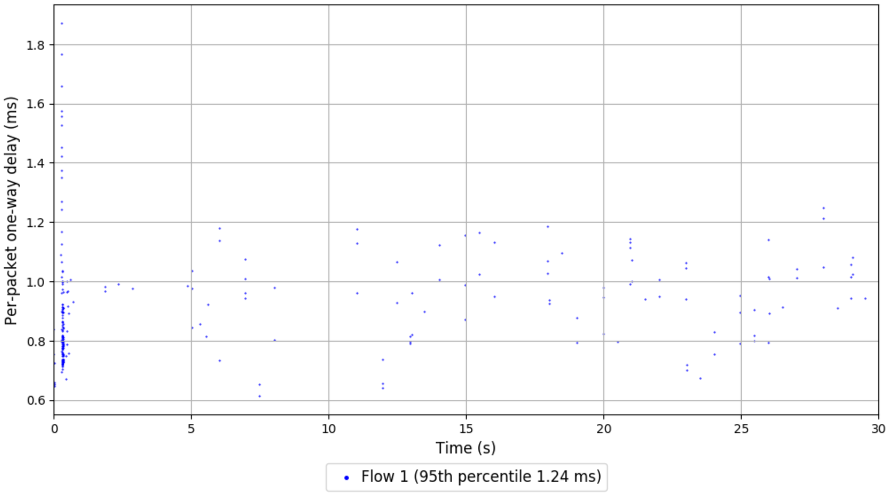




```
Run 2: Statistics of WebRTC media

Start at: 2019-10-02 18:06:16
End at: 2019-10-02 18:06:46
Local clock offset: 4.317 ms
Remote clock offset: 3.591 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.00%
```

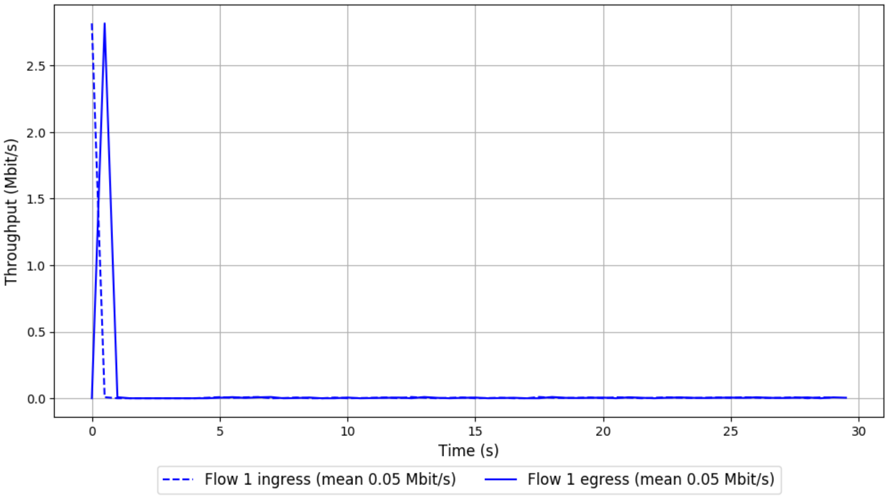
Run 2: Report of WebRTC media — Data Link

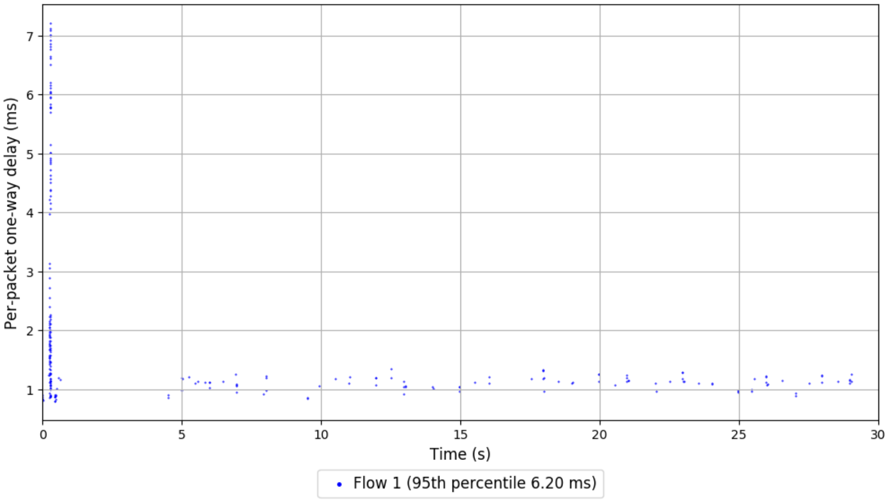




```
Run 3: Statistics of WebRTC media

Start at: 2019-10-02 18:39:30
End at: 2019-10-02 18:40:00
Local clock offset: 4.512 ms
Remote clock offset: -0.411 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.203 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.203 ms
Loss rate: 0.00%
```

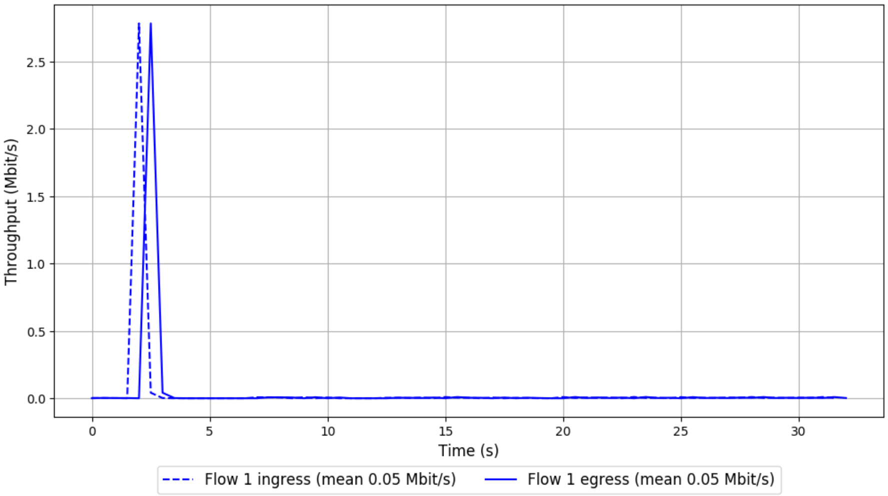
Run 3: Report of WebRTC media — Data Link

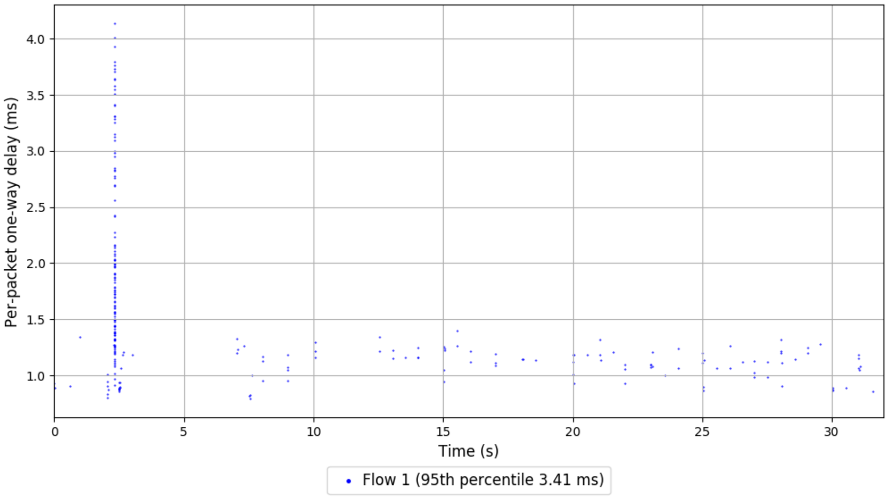




```
Run 4: Statistics of WebRTC media

Start at: 2019-10-02 19:13:12
End at: 2019-10-02 19:13:42
Local clock offset: 4.276 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.407 ms
Loss rate: 0.00%
```

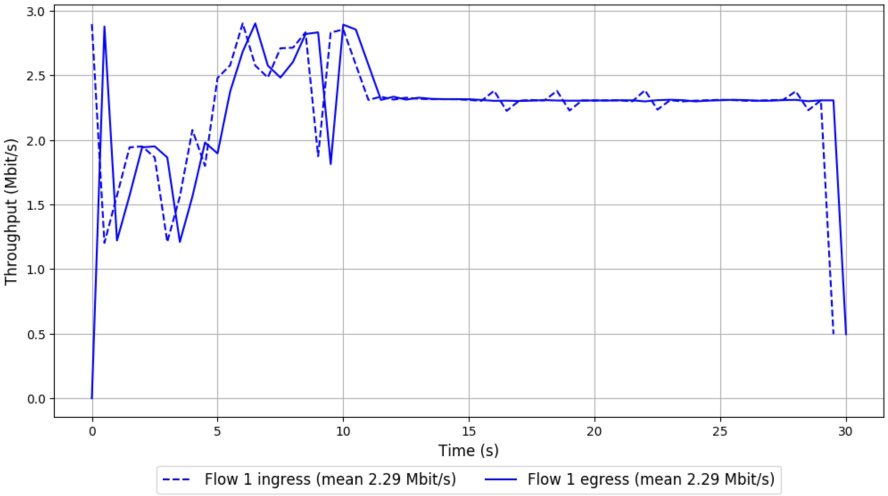
Run 4: Report of WebRTC media — Data Link



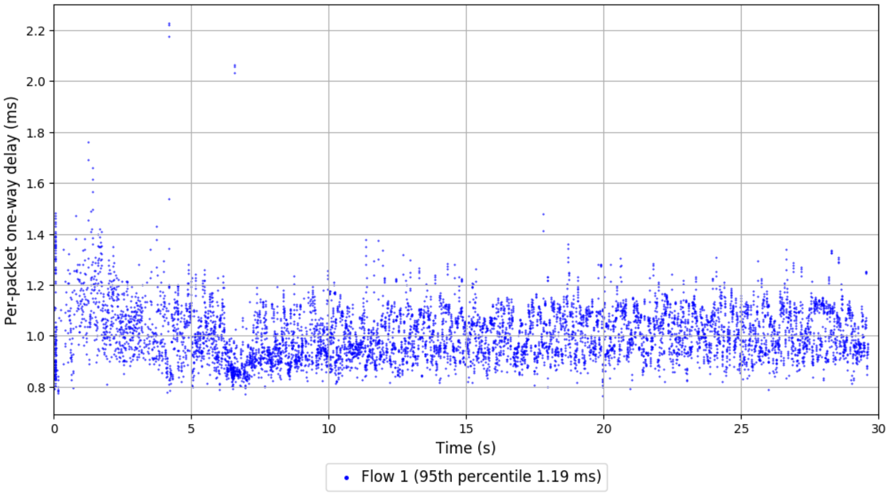


```
Run 5: Statistics of WebRTC media

Start at: 2019-10-02 19:46:33
End at: 2019-10-02 19:47:03
Local clock offset: 4.568 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2019-10-02 21:11:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



Throughput (Mbit/s)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 2.29 Mbit/s)
Flow 1 egress (mean 2.29 Mbit/s)



Per-packet one-way delay (ms)
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 1.19 ms)