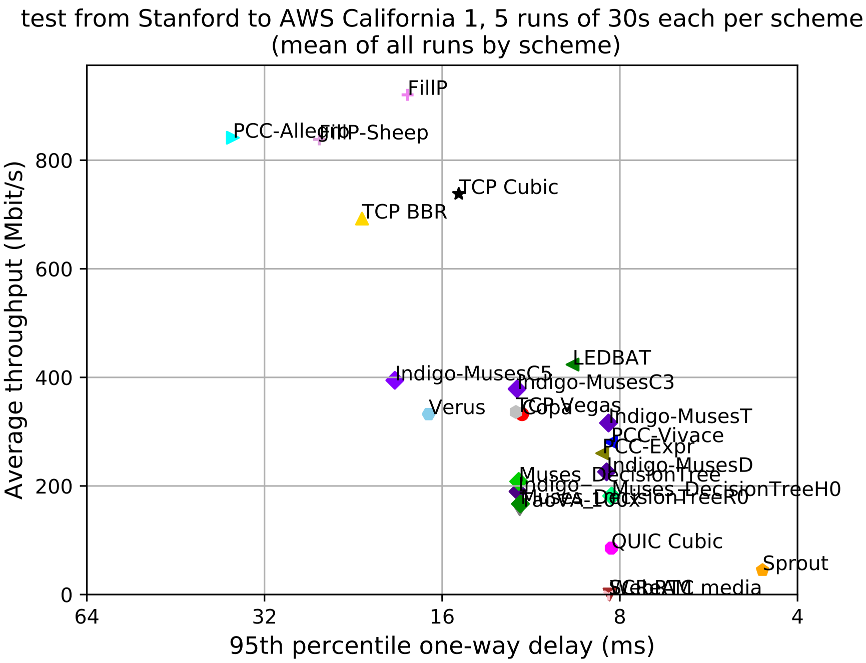
Pantheon Report

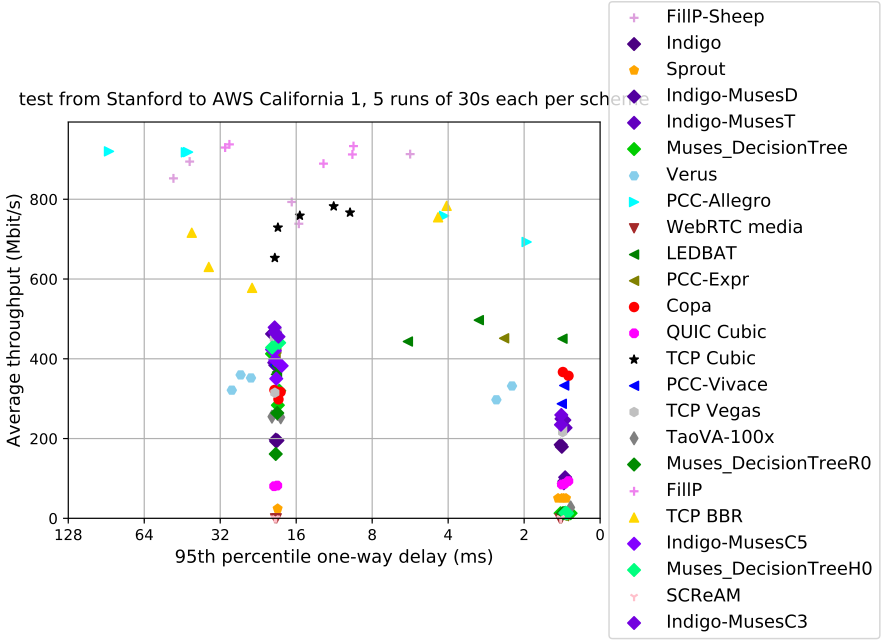
Generated at 2019-10-03 10:59:42 (UTC).
Data path: Stanford on `eno1` (*remote*) →AWS California 1 on `ens5` (*local*).
Repeated the test of 24 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1050-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
```

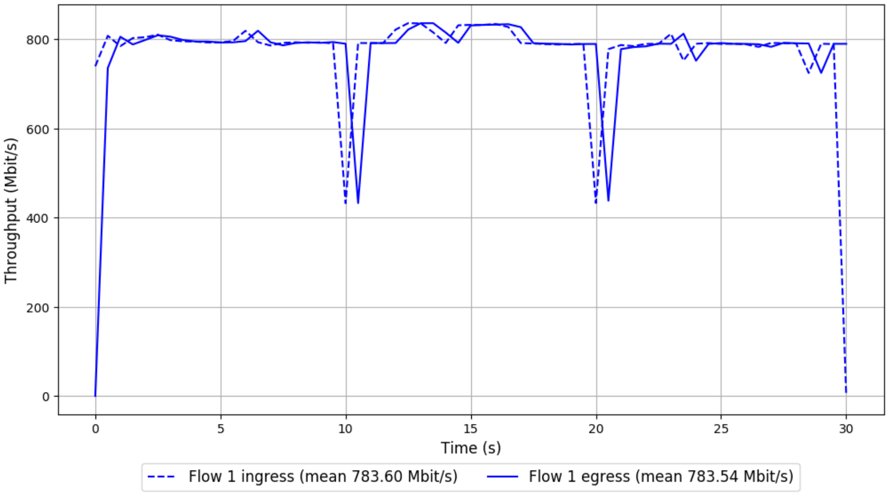

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
(mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
64
32
16
8
4
FillP
PCC-Allegro
FillP-Sheep
TCP Cubic
TCP BBR
LEDBAT
Indigo-MusesC5
Indigo-MusesC3
Verus
TCP Vegas
Copa
Indigo-MusesT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

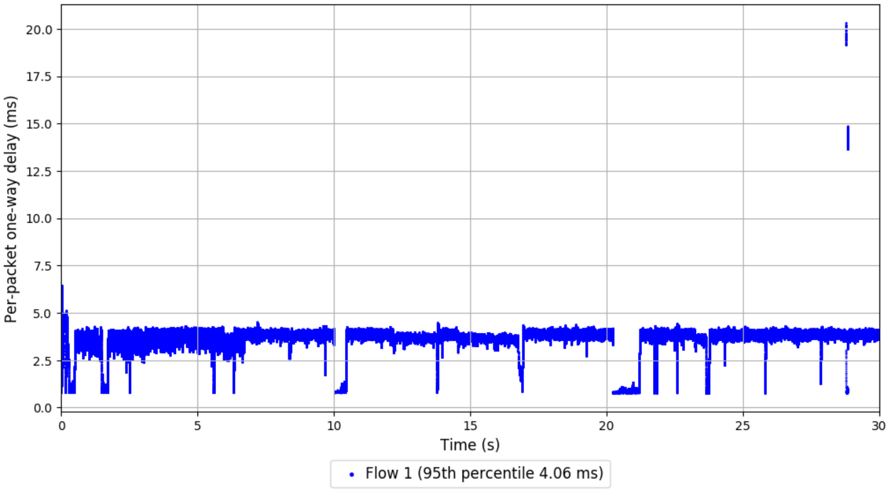

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
128
64
32
16
8
4
2
0
FillP-Sheep
Indigo
Sprout
Indigo-MusesD
Indigo-MusesT
Muses_DecisionTree
Verus
PCC-Allegro
WebRTC media
LEDBAT
PCC-Expr
Copa
QUIC Cubic
TCP Cubic
PCC-Vivace
TCP Vegas
TaoVA-100x
Muses_DecisionTreeR0
FillP
TCP BBR
Indigo-MusesC5
Muses_DecisionTreeH0
SCReAM
Indigo-MusesC3

		mean avg tput (Mbit/s)	mean 95th-%ile delay (ms)	mean loss rate (%)
scheme	# runs	flow 1	flow 1	flow 1
TCP BBR	5	692.52	21.87	0.03
Copa	5	332.22	11.72	0.04
TCP Cubic	5	737.95	15.00	0.06
FillP	5	920.44	18.31	0.04
FillP-Sheep	5	838.37	25.85	0.10
Indigo	5	189.83	11.90	0.05
Indigo-MusesC3	5	378.69	11.95	0.05
Indigo-MusesC5	5	394.65	19.25	0.07
Indigo-MusesD	5	225.98	8.42	0.03
Indigo-MusesT	5	315.98	8.36	0.04
LEDBAT	5	423.59	9.62	0.03
Muses_DecisionTree	5	208.33	11.87	0.04
Muses_DecisionTreeH0	5	181.64	8.26	0.03
Muses_DecisionTreeR0	5	167.00	11.79	0.05
PCC-Allegro	5	841.42	36.20	0.05
PCC-Expr	5	260.20	8.57	0.03
QUIC Cubic	5	85.49	8.27	0.03
SCReAM	5	0.22	8.36	0.08
Sprout	5	45.06	4.59	0.01
TaoVA-100x	5	161.77	11.82	0.04
TCP Vegas	5	336.26	12.00	0.03
Verus	5	332.38	16.87	0.05
PCC-Vivace	5	280.76	8.28	0.03
WebRTC media	5	0.05	8.33	0.01

```
Run 1: Statistics of TCP BBR

Start at: 2019-10-03 07:17:48
End at: 2019-10-03 07:18:18
Local clock offset: 5.019 ms
Remote clock offset: 0.714 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 783.54 Mbit/s
95th percentile per-packet one-way delay: 4.056 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 783.54 Mbit/s
95th percentile per-packet one-way delay: 4.056 ms
Loss rate: 0.02%
```

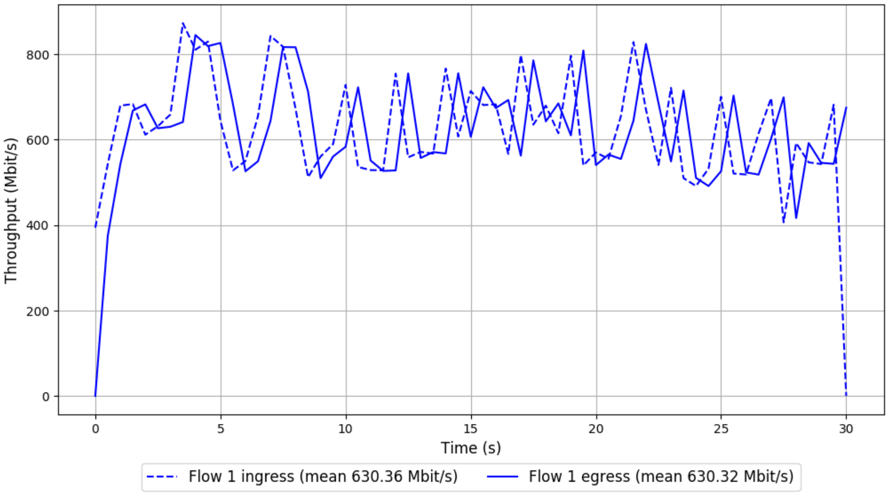
Run 1: Report of TCP BBR — Data Link

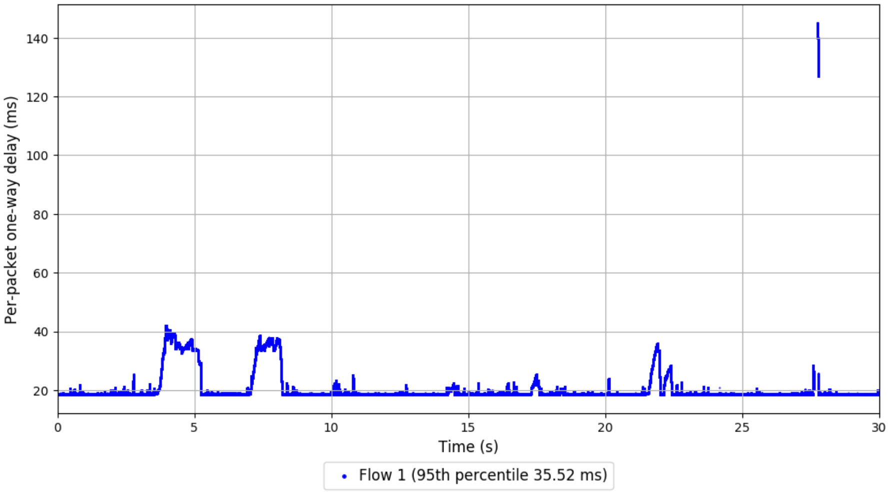




```
Run 2: Statistics of TCP BBR

Start at: 2019-10-03 07:51:51
End at: 2019-10-03 07:52:21
Local clock offset: 5.873 ms
Remote clock offset: 0.671 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 630.32 Mbit/s
95th percentile per-packet one-way delay: 35.520 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 630.32 Mbit/s
95th percentile per-packet one-way delay: 35.520 ms
Loss rate: 0.07%
```

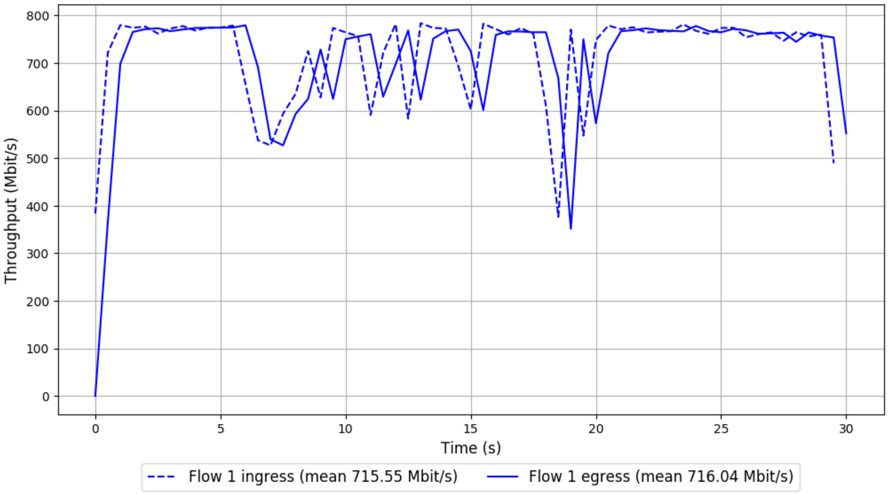
Run 2: Report of TCP BBR — Data Link

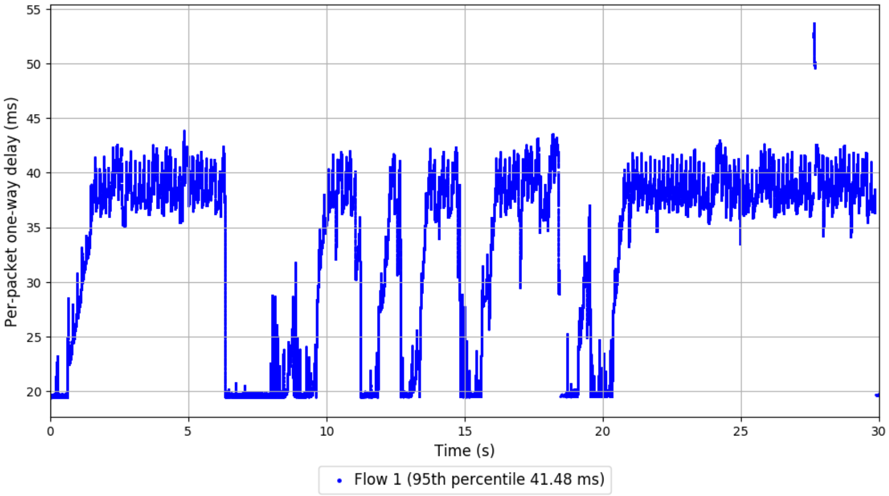




```
Run 3: Statistics of TCP BBR

Start at: 2019-10-03 08:26:20
End at: 2019-10-03 08:26:50
Local clock offset: 6.042 ms
Remote clock offset: 0.275 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 716.04 Mbit/s
95th percentile per-packet one-way delay: 41.483 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 716.04 Mbit/s
95th percentile per-packet one-way delay: 41.483 ms
Loss rate: 0.00%
```

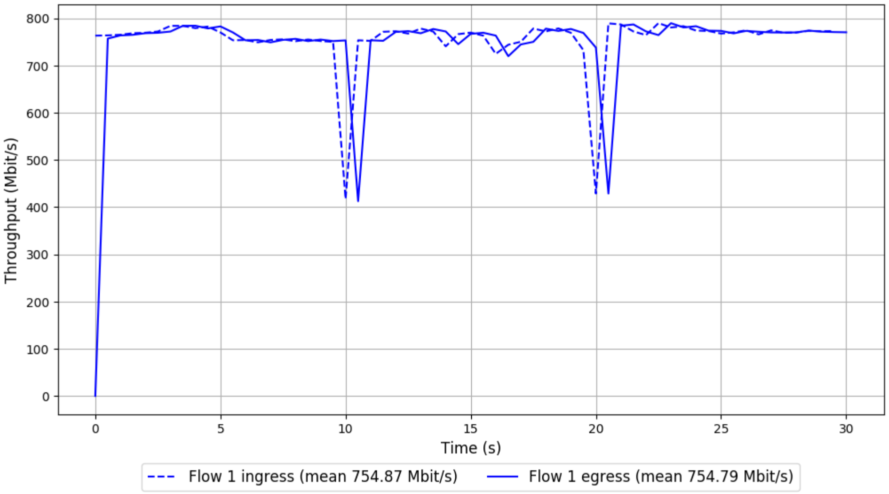
Run 3: Report of TCP BBR — Data Link

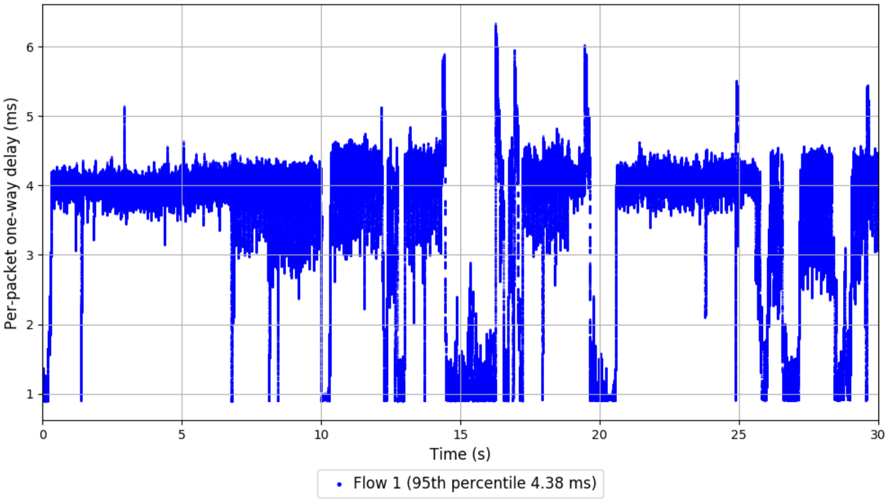




```
Run 4: Statistics of TCP BBR

Start at: 2019-10-03 09:00:02
End at: 2019-10-03 09:00:32
Local clock offset: 3.045 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 754.79 Mbit/s
95th percentile per-packet one-way delay: 4.385 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 754.79 Mbit/s
95th percentile per-packet one-way delay: 4.385 ms
Loss rate: 0.02%
```

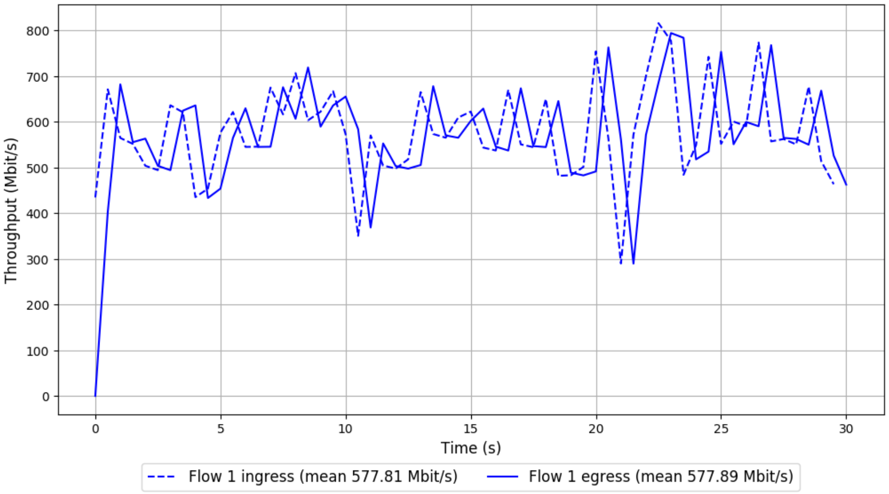
Run 4: Report of TCP BBR — Data Link

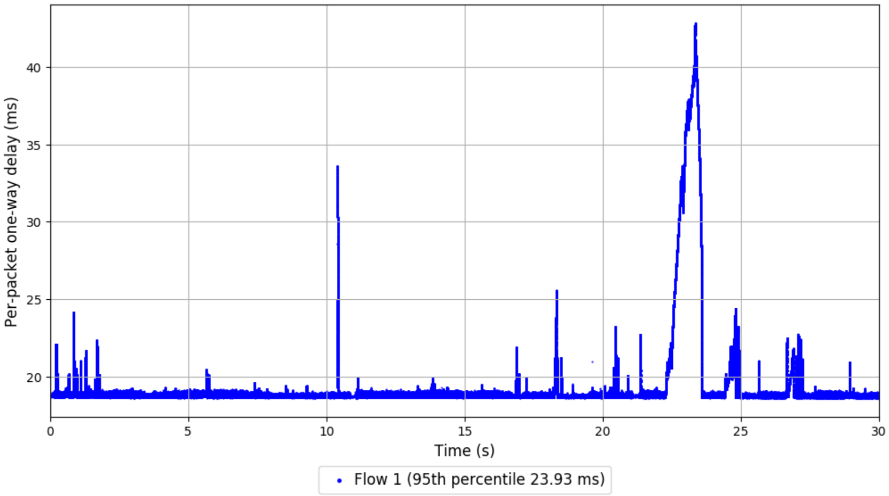




```
Run 5: Statistics of TCP BBR

Start at: 2019-10-03 09:33:47
End at: 2019-10-03 09:34:17
Local clock offset: 3.918 ms
Remote clock offset: 0.18 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 577.89 Mbit/s
95th percentile per-packet one-way delay: 23.927 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 577.89 Mbit/s
95th percentile per-packet one-way delay: 23.927 ms
Loss rate: 0.05%
```

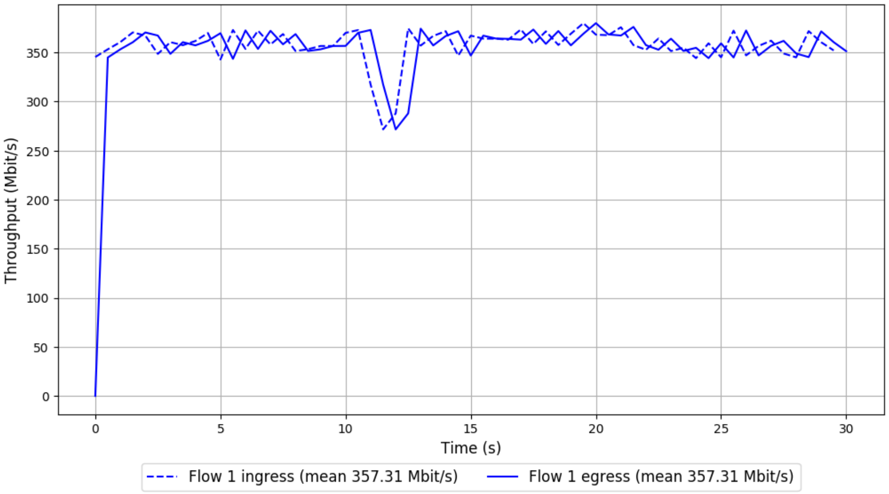
Run 5: Report of TCP BBR — Data Link

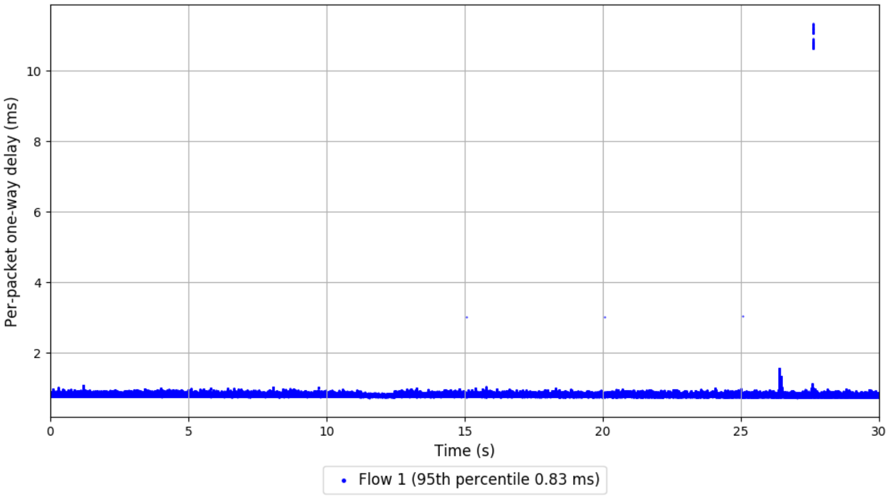




```
Run 1: Statistics of Copa

Start at: 2019-10-03 06:57:28
End at: 2019-10-03 06:57:58
Local clock offset: 4.283 ms
Remote clock offset: 0.122 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 357.31 Mbit/s
95th percentile per-packet one-way delay: 0.832 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 357.31 Mbit/s
95th percentile per-packet one-way delay: 0.832 ms
Loss rate: 0.01%
```

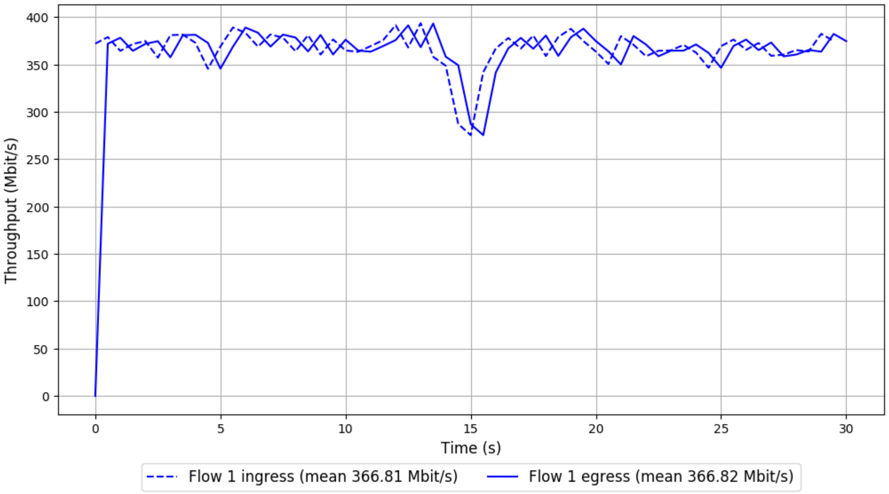
Run 1: Report of Copa — Data Link

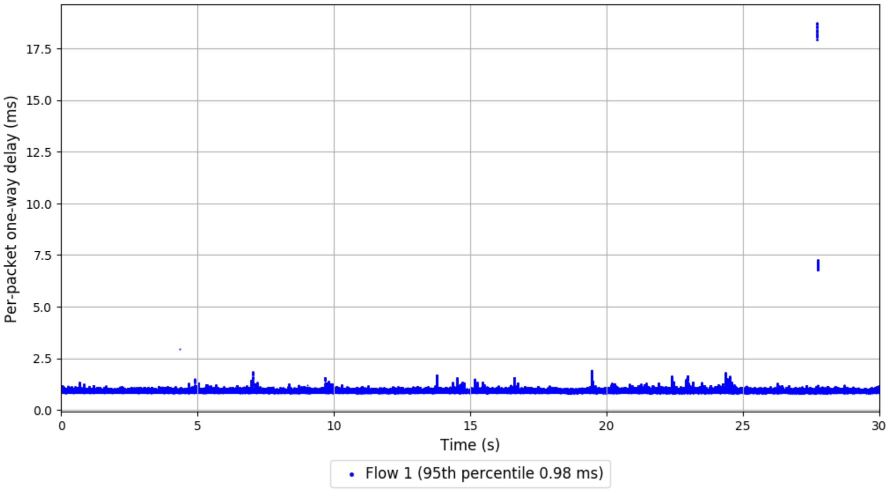




```
Run 2: Statistics of Copa

Start at: 2019-10-03 07:31:55
End at: 2019-10-03 07:32:25
Local clock offset: 5.381 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.82 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 366.82 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 0.00%
```

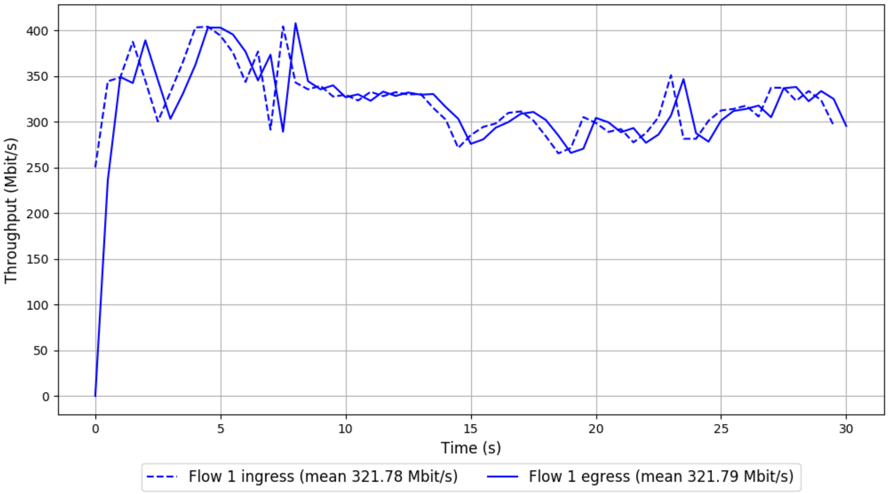
Run 2: Report of Copa — Data Link

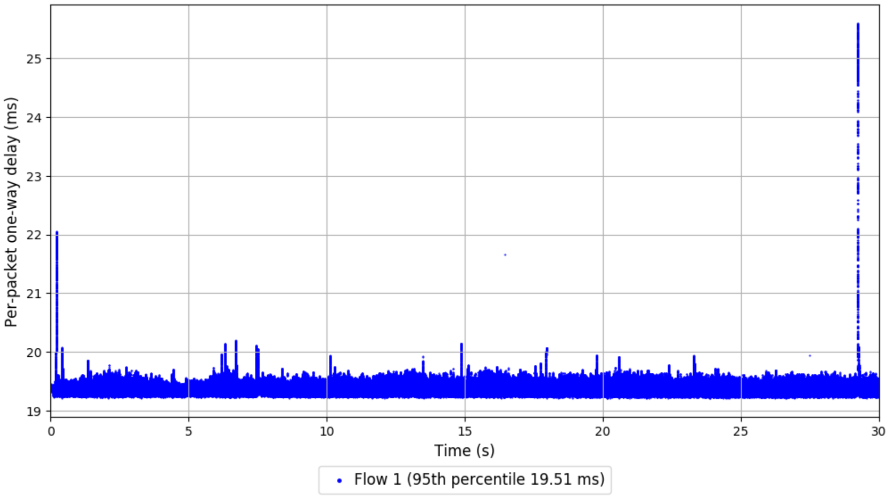




```
Run 3: Statistics of Copa

Start at: 2019-10-03 08:06:22
End at: 2019-10-03 08:06:52
Local clock offset: 6.197 ms
Remote clock offset: 0.159 ms

# Below is generated by plot.py at 2019-10-03 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.79 Mbit/s
95th percentile per-packet one-way delay: 19.514 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 321.79 Mbit/s
95th percentile per-packet one-way delay: 19.514 ms
Loss rate: 0.06%
```

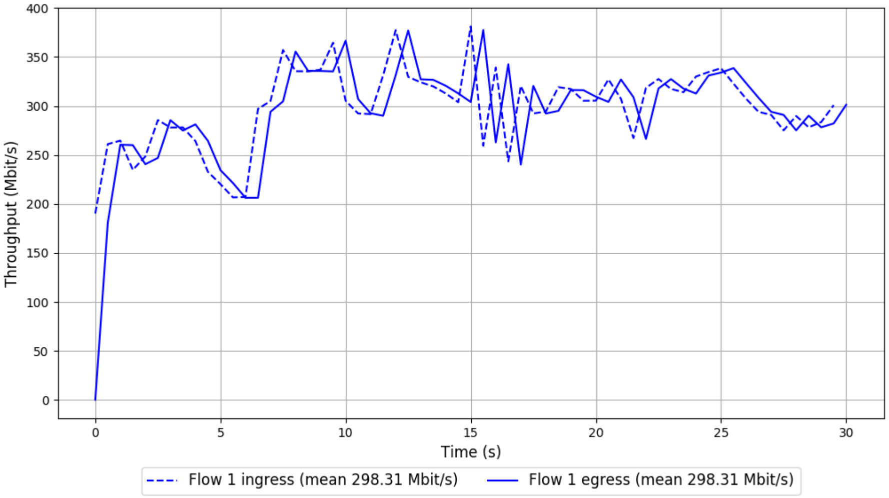
Run 3: Report of Copa — Data Link

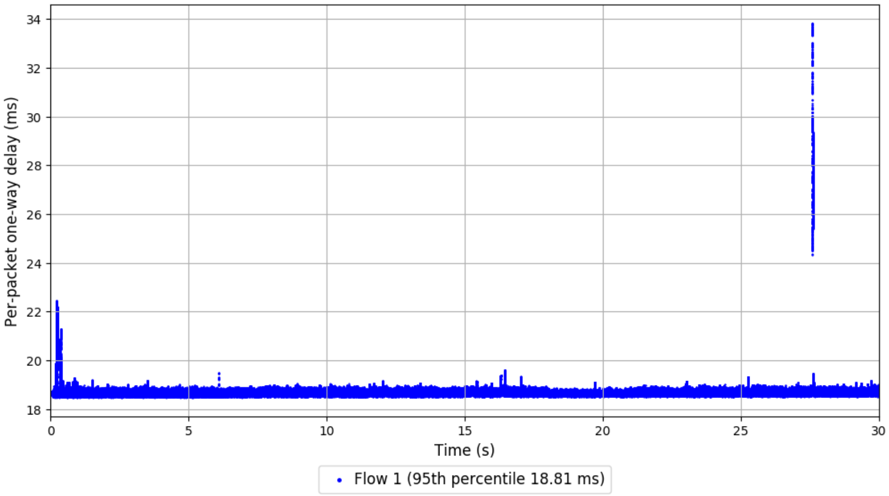




```
Run 4: Statistics of Copa

Start at: 2019-10-03 08:40:35
End at: 2019-10-03 08:41:05
Local clock offset: 3.922 ms
Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2019-10-03 10:05:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 298.31 Mbit/s
95th percentile per-packet one-way delay: 18.809 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 298.31 Mbit/s
95th percentile per-packet one-way delay: 18.809 ms
Loss rate: 0.07%
```

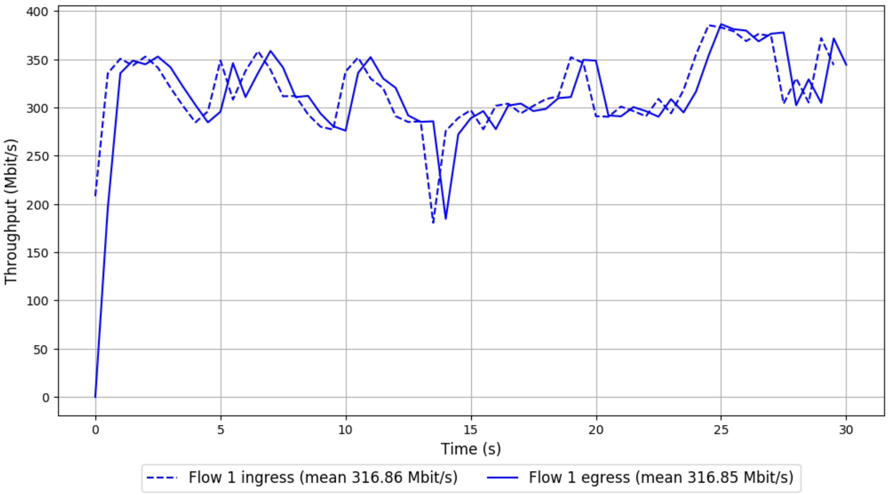
Run 4: Report of Copa — Data Link

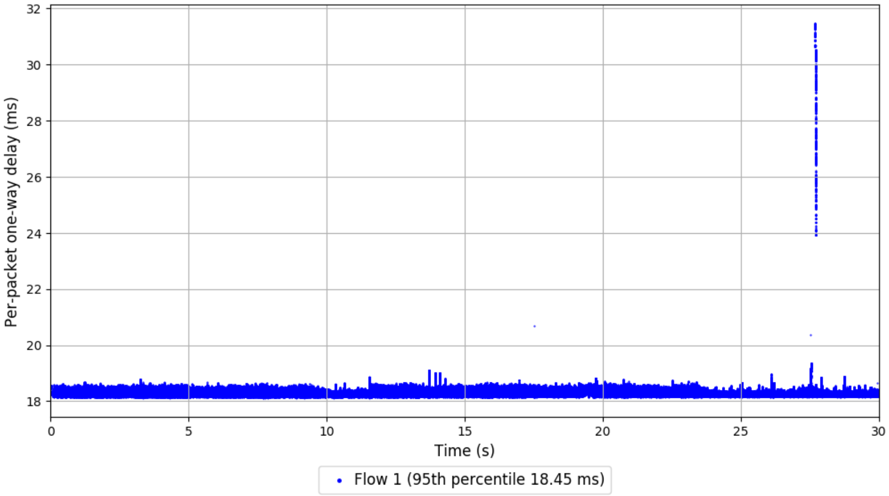




```
Run 5: Statistics of Copa

Start at: 2019-10-03 09:14:30
End at: 2019-10-03 09:15:00
Local clock offset: 2.557 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-10-03 10:07:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.85 Mbit/s
95th percentile per-packet one-way delay: 18.447 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 316.85 Mbit/s
95th percentile per-packet one-way delay: 18.447 ms
Loss rate: 0.07%
```

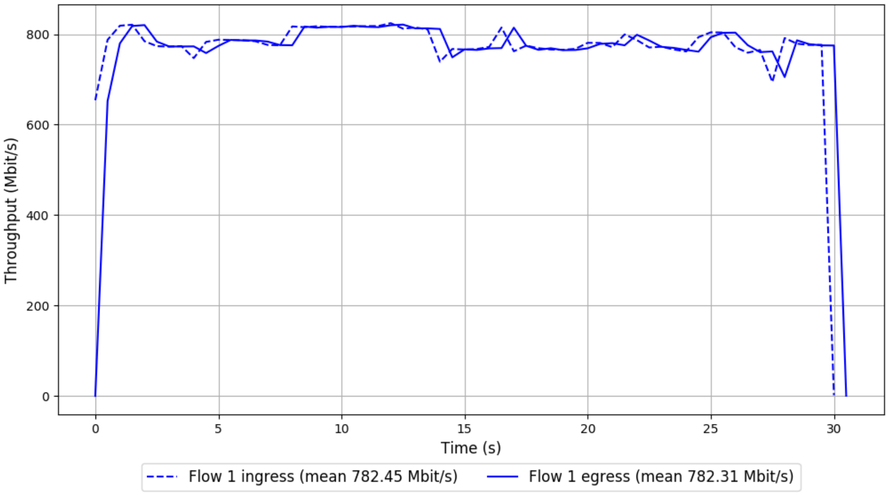
Run 5: Report of Copa — Data Link

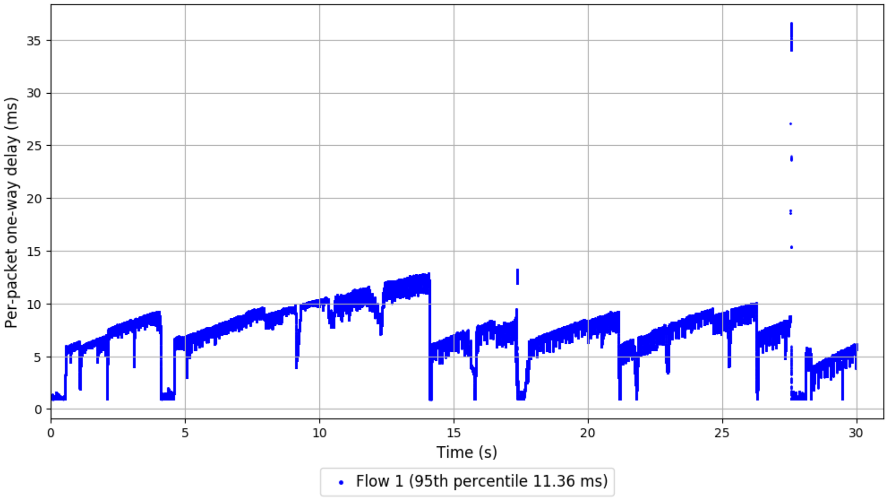




```
Run 1: Statistics of TCP Cubic

Start at: 2019-10-03 07:08:59
End at: 2019-10-03 07:09:29
Local clock offset: 4.796 ms
Remote clock offset: 0.322 ms

# Below is generated by plot.py at 2019-10-03 10:09:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 782.31 Mbit/s
95th percentile per-packet one-way delay: 11.364 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 782.31 Mbit/s
95th percentile per-packet one-way delay: 11.364 ms
Loss rate: 0.02%
```

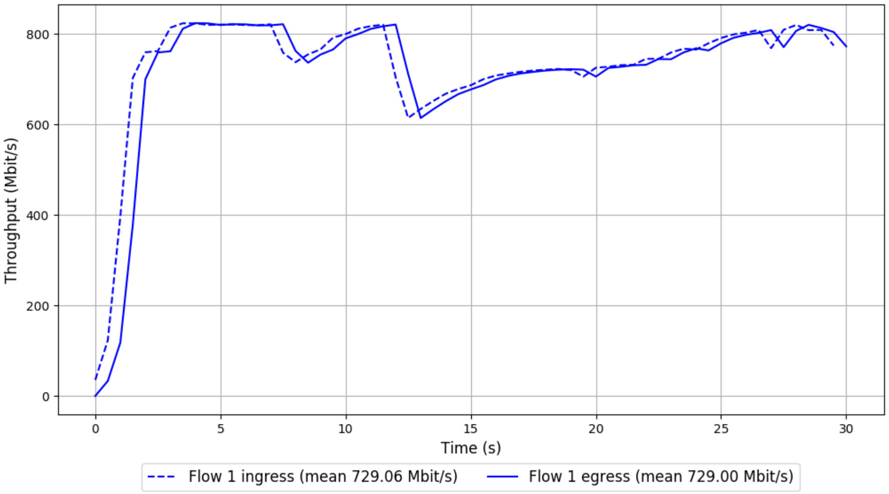
Run 1: Report of TCP Cubic — Data Link

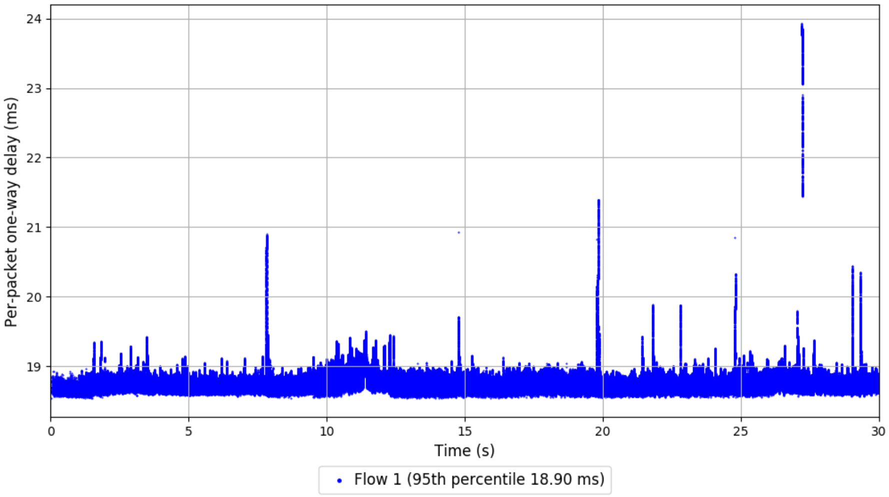




```
Run 2: Statistics of TCP Cubic

Start at: 2019-10-03 07:43:10
End at: 2019-10-03 07:43:40
Local clock offset: 5.704 ms
Remote clock offset: 0.451 ms

# Below is generated by plot.py at 2019-10-03 10:09:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 729.00 Mbit/s
95th percentile per-packet one-way delay: 18.903 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 729.00 Mbit/s
95th percentile per-packet one-way delay: 18.903 ms
Loss rate: 0.07%
```

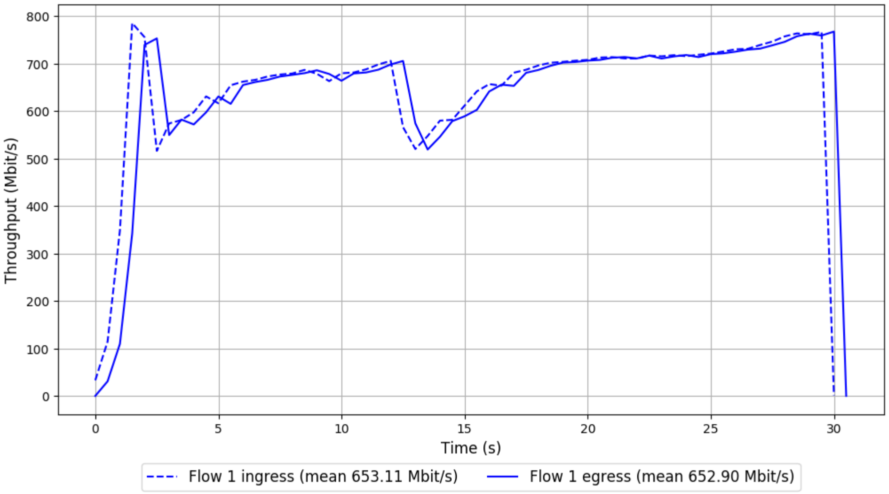
Run 2: Report of TCP Cubic — Data Link

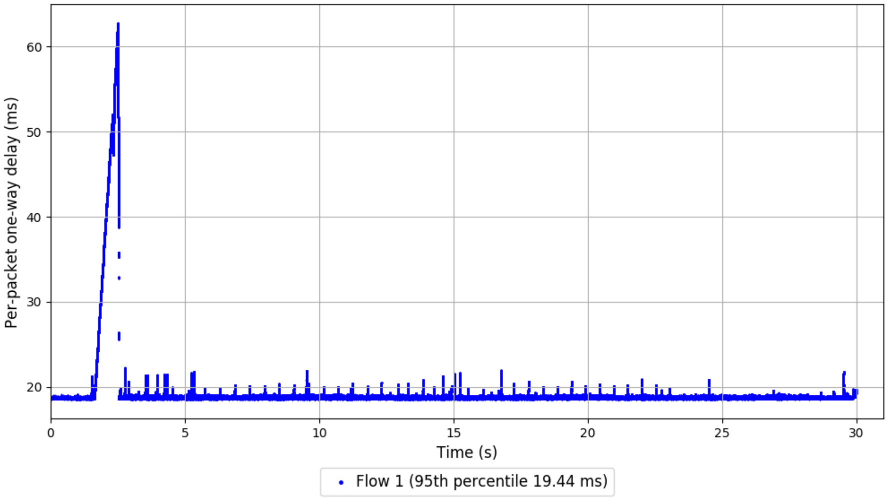




```
Run 3: Statistics of TCP Cubic

Start at: 2019-10-03 08:17:49
End at: 2019-10-03 08:18:19
Local clock offset: 6.38 ms
Remote clock offset: 0.275 ms

# Below is generated by plot.py at 2019-10-03 10:09:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 652.90 Mbit/s
95th percentile per-packet one-way delay: 19.443 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 652.90 Mbit/s
95th percentile per-packet one-way delay: 19.443 ms
Loss rate: 0.10%
```

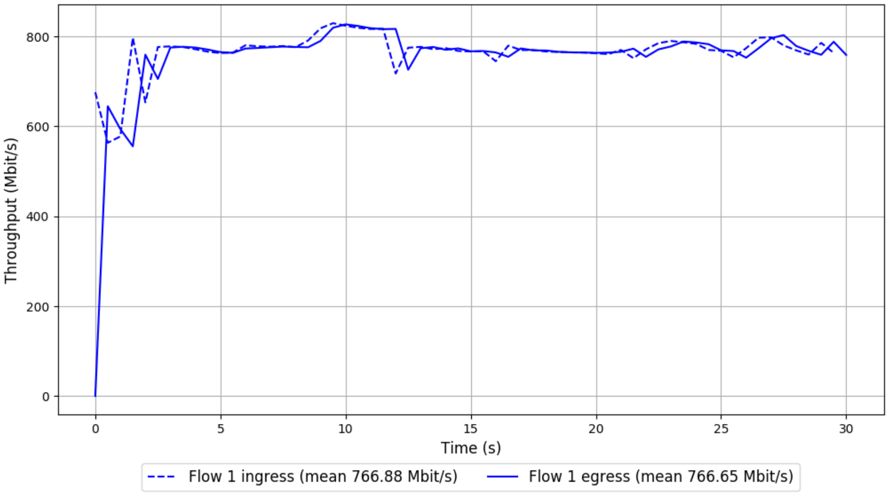
Run 3: Report of TCP Cubic — Data Link

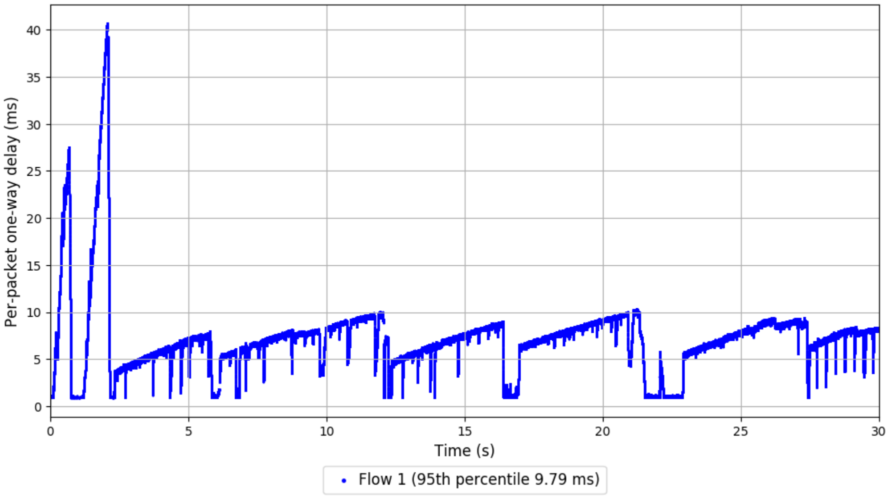




```
Run 4: Statistics of TCP Cubic

Start at: 2019-10-03 08:51:25
End at: 2019-10-03 08:51:55
Local clock offset: 3.328 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2019-10-03 10:09:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 766.65 Mbit/s
95th percentile per-packet one-way delay: 9.790 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 766.65 Mbit/s
95th percentile per-packet one-way delay: 9.790 ms
Loss rate: 0.04%
```

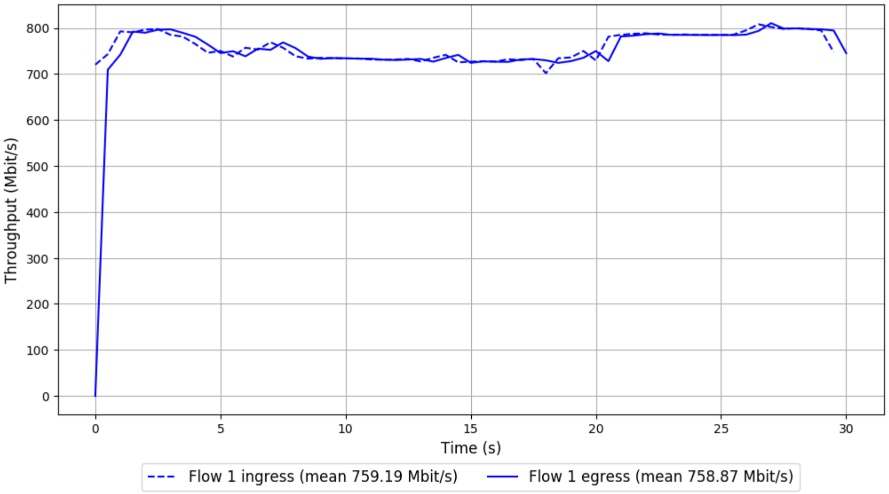
Run 4: Report of TCP Cubic — Data Link

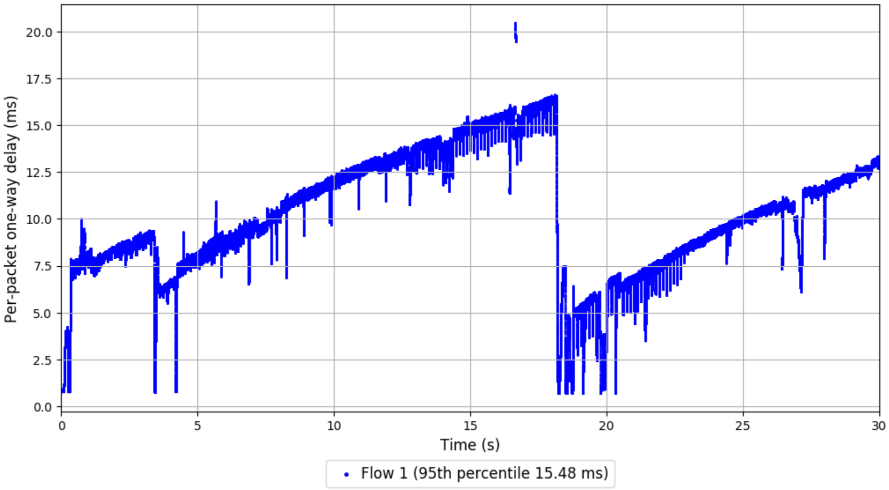




```
Run 5: Statistics of TCP Cubic

Start at: 2019-10-03 09:25:21
End at: 2019-10-03 09:25:51
Local clock offset: 2.415 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2019-10-03 10:10:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 758.87 Mbit/s
95th percentile per-packet one-way delay: 15.481 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 758.87 Mbit/s
95th percentile per-packet one-way delay: 15.481 ms
Loss rate: 0.05%
```

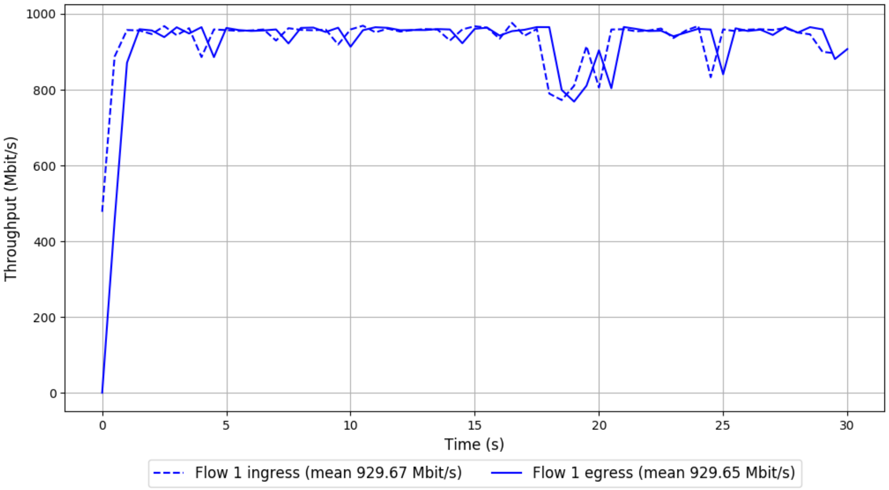
Run 5: Report of TCP Cubic — Data Link

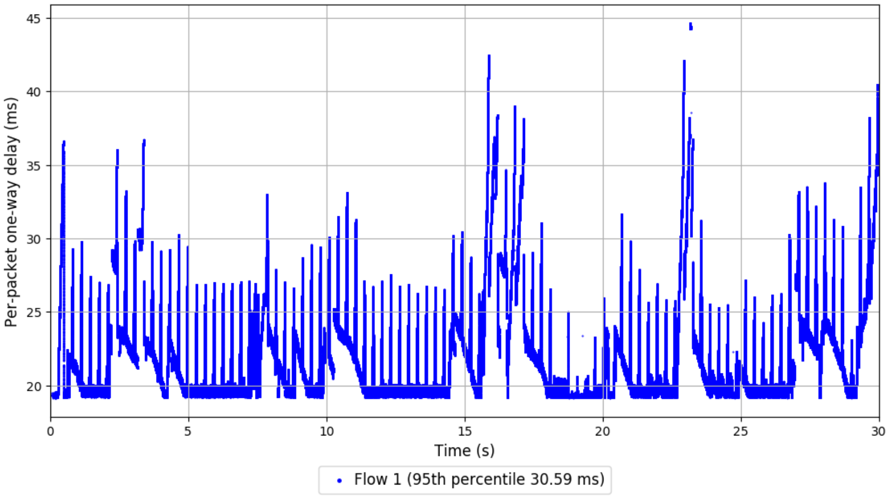




```
Run 1: Statistics of FillP

Start at: 2019-10-03 07:24:51
End at: 2019-10-03 07:25:21
Local clock offset: 5.134 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2019-10-03 10:13:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 929.65 Mbit/s
95th percentile per-packet one-way delay: 30.595 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 929.65 Mbit/s
95th percentile per-packet one-way delay: 30.595 ms
Loss rate: 0.07%
```

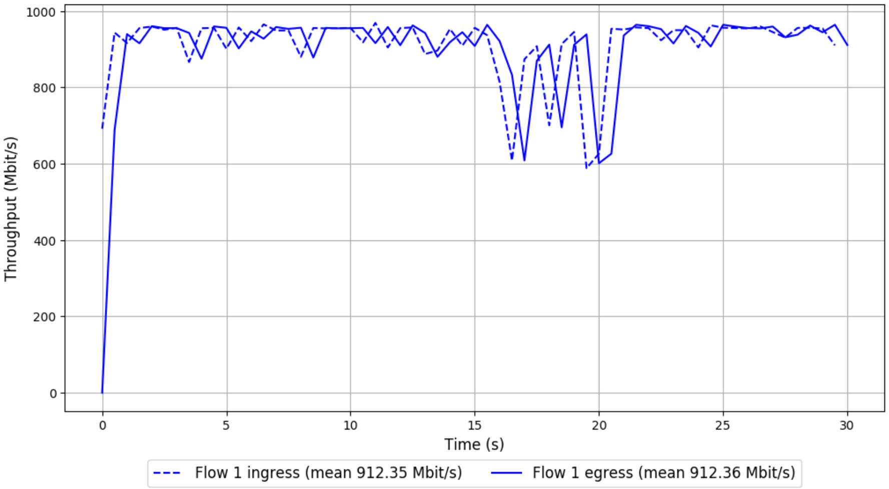
Run 1: Report of FillP — Data Link

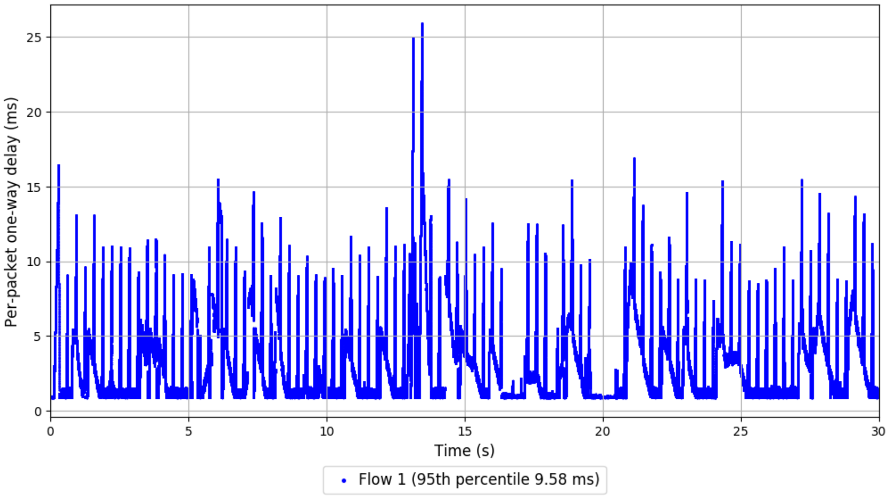




```
Run 2: Statistics of FillP

Start at: 2019-10-03 07:58:50
End at: 2019-10-03 07:59:20
Local clock offset: 6.033 ms
Remote clock offset: 0.255 ms

# Below is generated by plot.py at 2019-10-03 10:18:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 912.36 Mbit/s
95th percentile per-packet one-way delay: 9.581 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 912.36 Mbit/s
95th percentile per-packet one-way delay: 9.581 ms
Loss rate: 0.01%
```

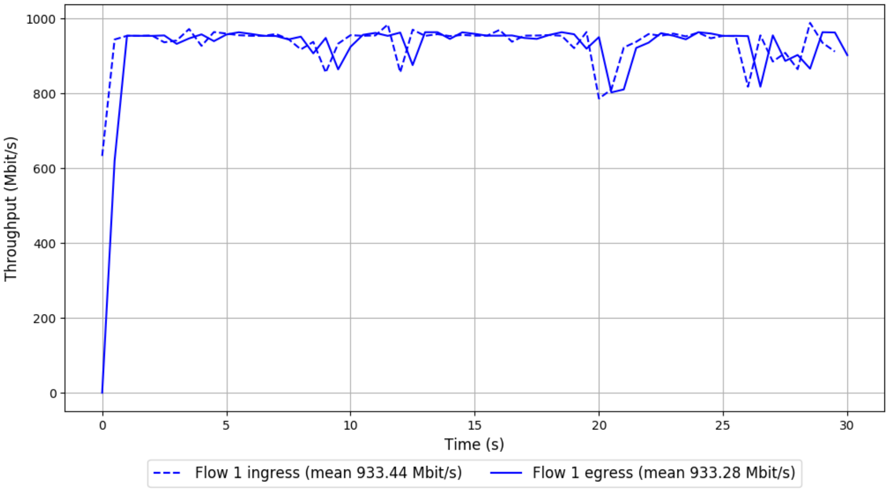
Run 2: Report of FillP — Data Link

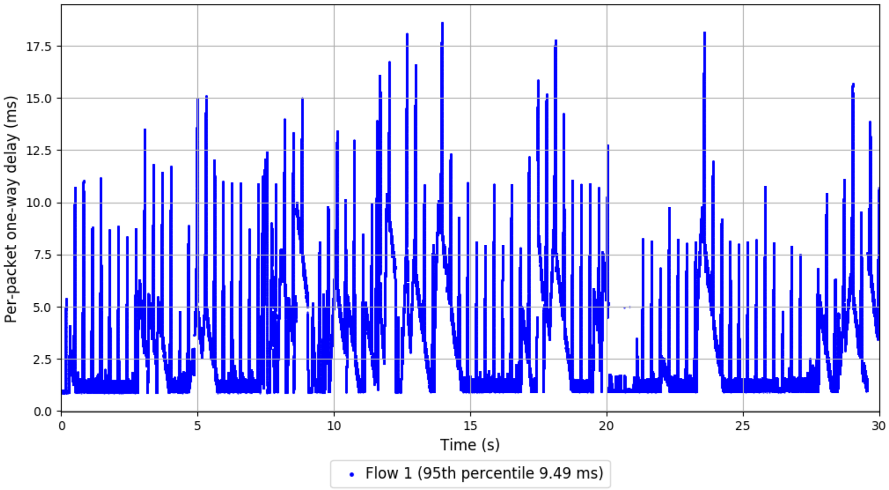




```
Run 3: Statistics of FillP

Start at: 2019-10-03 08:33:19
End at: 2019-10-03 08:33:49
Local clock offset: 4.651 ms
Remote clock offset: 0.159 ms

# Below is generated by plot.py at 2019-10-03 10:20:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 933.28 Mbit/s
95th percentile per-packet one-way delay: 9.486 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 933.28 Mbit/s
95th percentile per-packet one-way delay: 9.486 ms
Loss rate: 0.02%
```

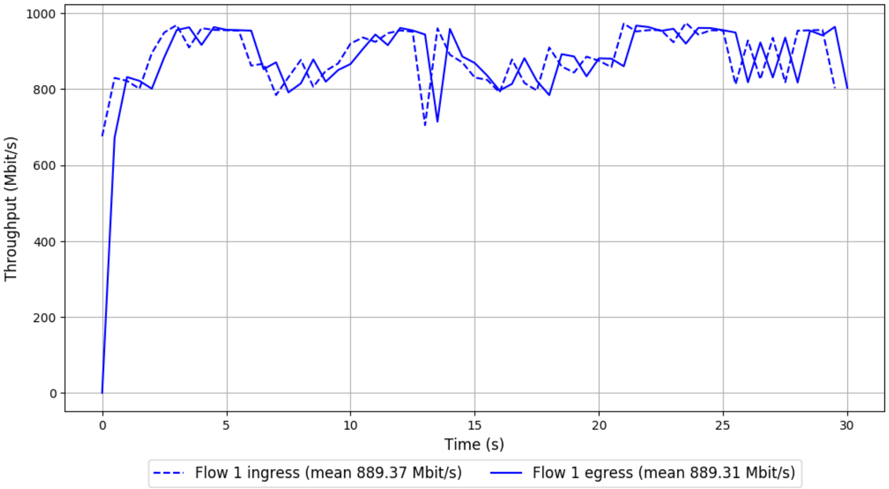
Run 3: Report of FillP — Data Link

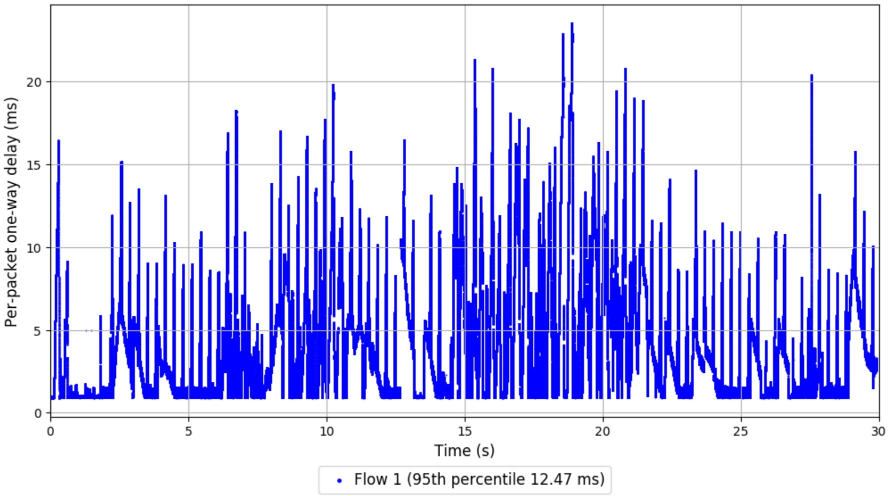




```
Run 4: Statistics of FillP

Start at: 2019-10-03 09:07:08
End at: 2019-10-03 09:07:38
Local clock offset: 2.819 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-10-03 10:20:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 889.31 Mbit/s
95th percentile per-packet one-way delay: 12.474 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 889.31 Mbit/s
95th percentile per-packet one-way delay: 12.474 ms
Loss rate: 0.01%
```

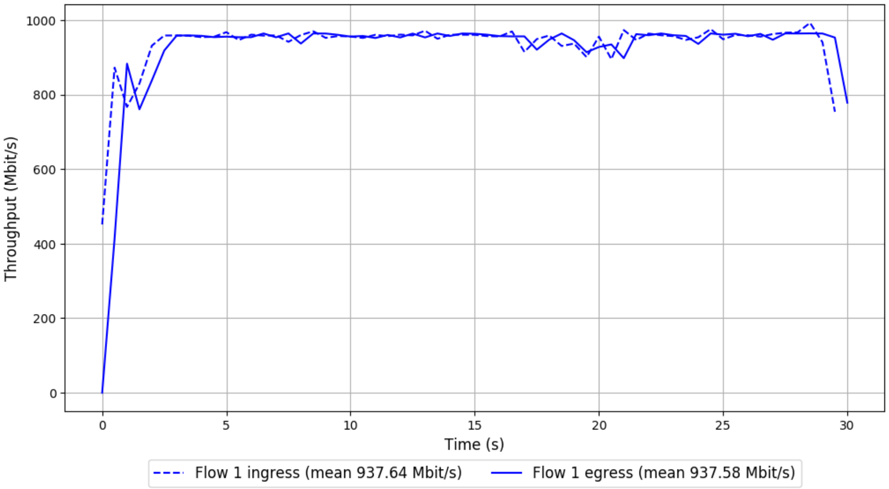
Run 4: Report of FillP — Data Link

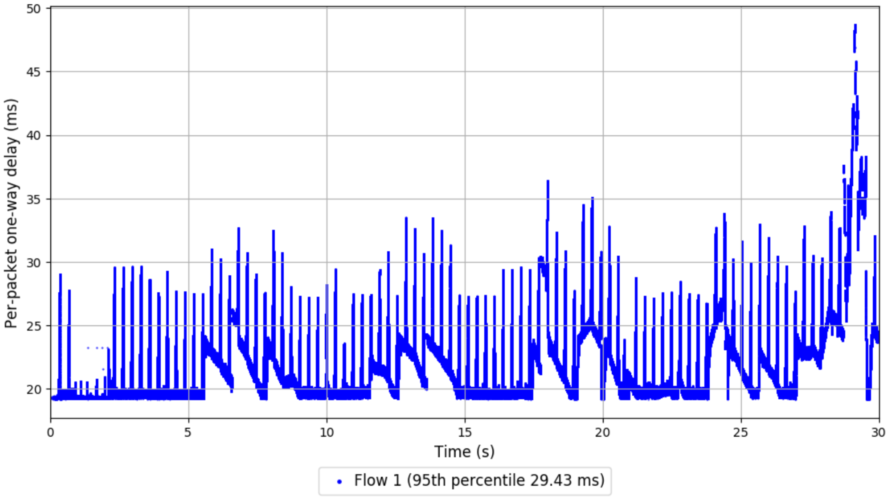




```
Run 5: Statistics of FillP

Start at: 2019-10-03 09:40:38
End at: 2019-10-03 09:41:08
Local clock offset: 4.503 ms
Remote clock offset: 0.061 ms

# Below is generated by plot.py at 2019-10-03 10:21:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 937.58 Mbit/s
95th percentile per-packet one-way delay: 29.429 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 937.58 Mbit/s
95th percentile per-packet one-way delay: 29.429 ms
Loss rate: 0.07%
```

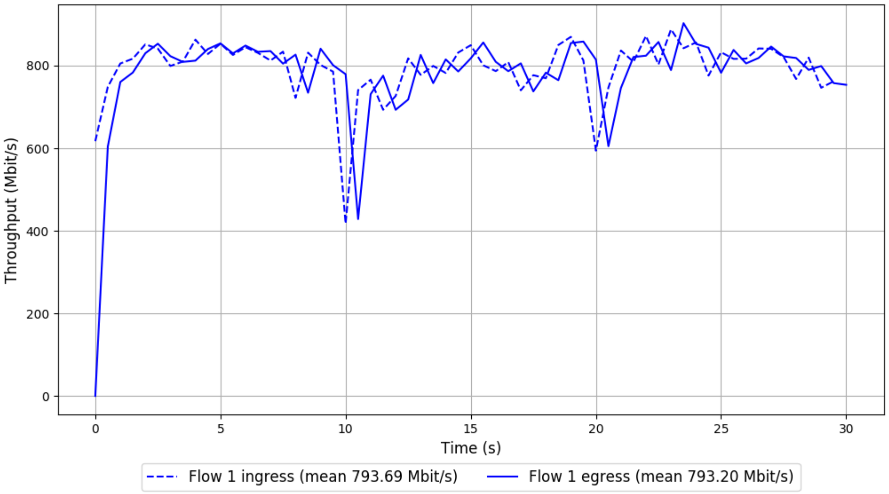
Run 5: Report of FillP — Data Link

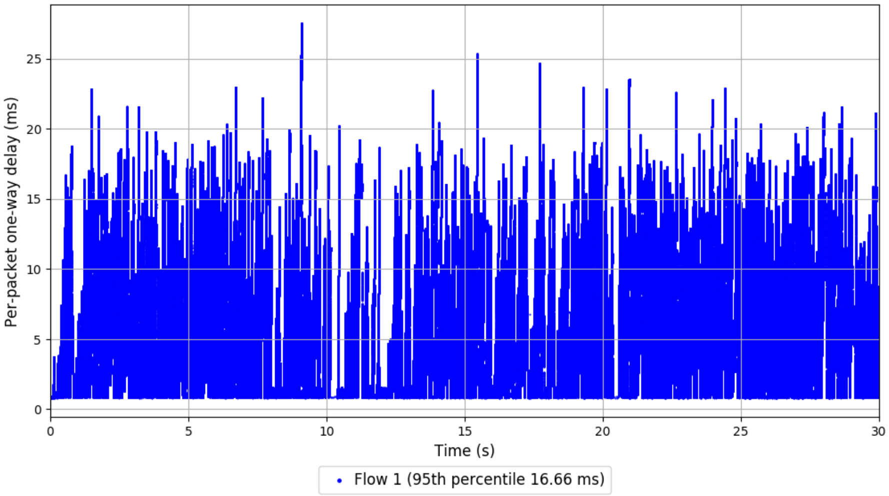




```
Run 1: Statistics of FillP-Sheep

Start at: 2019-10-03 07:00:25
End at: 2019-10-03 07:00:55
Local clock offset: 4.438 ms
Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2019-10-03 10:21:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 793.20 Mbit/s
95th percentile per-packet one-way delay: 16.664 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 793.20 Mbit/s
95th percentile per-packet one-way delay: 16.664 ms
Loss rate: 0.07%
```

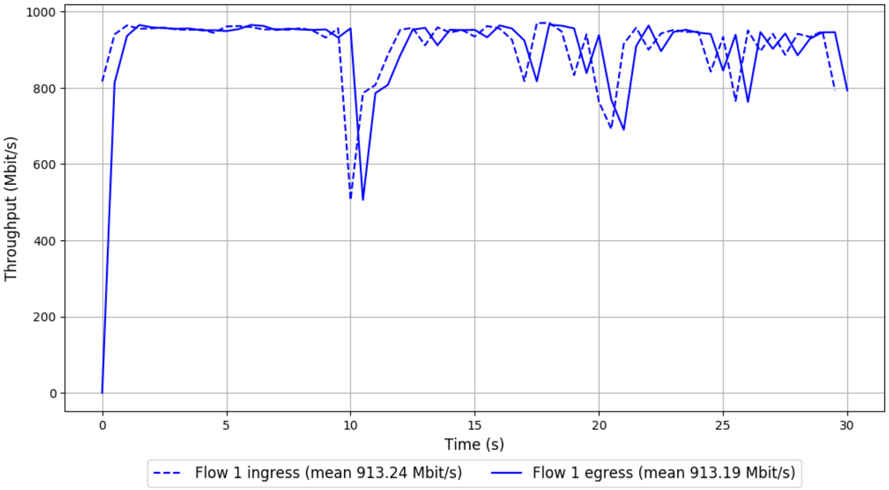
Run 1: Report of FillP-Sheep — Data Link

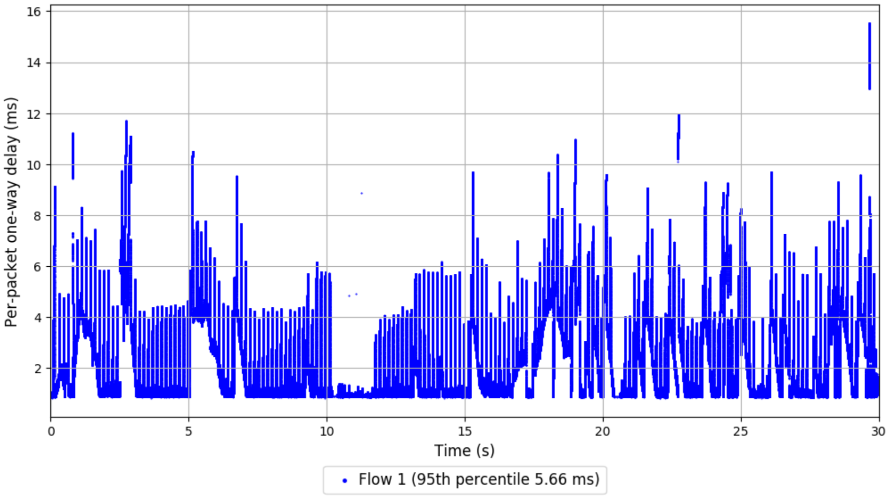




```
Run 2: Statistics of FillP-Sheep

Start at: 2019-10-03 07:34:59
End at: 2019-10-03 07:35:29
Local clock offset: 5.453 ms
Remote clock offset: 0.313 ms

# Below is generated by plot.py at 2019-10-03 10:22:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 913.19 Mbit/s
95th percentile per-packet one-way delay: 5.657 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 913.19 Mbit/s
95th percentile per-packet one-way delay: 5.657 ms
Loss rate: 0.01%
```

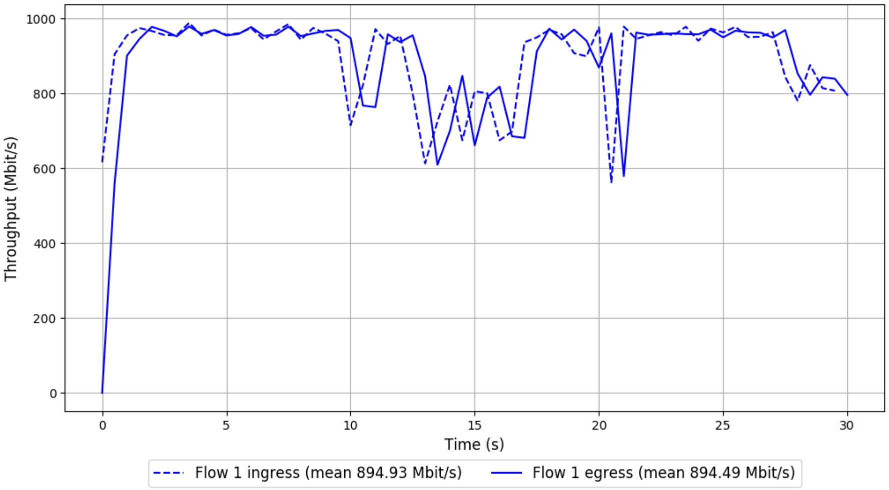
Run 2: Report of FillP-Sheep — Data Link

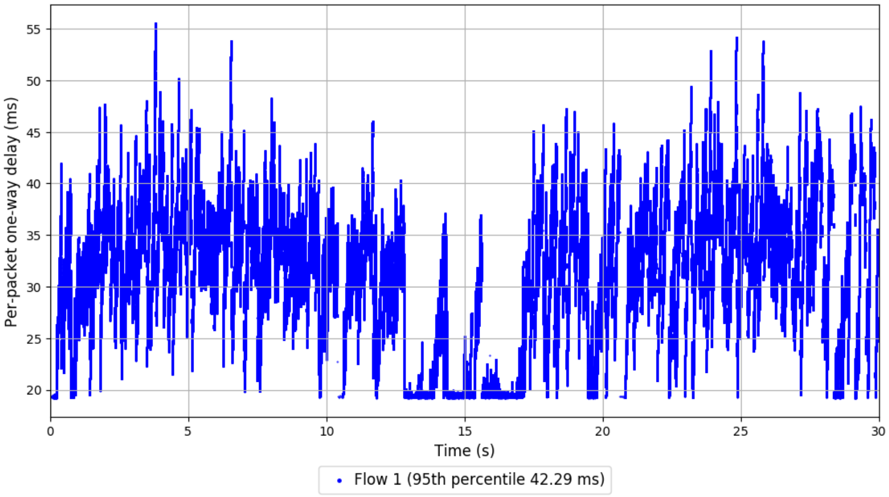




```
Run 3: Statistics of FillP-Sheep

Start at: 2019-10-03 08:09:24
End at: 2019-10-03 08:09:54
Local clock offset: 6.251 ms
Remote clock offset: 0.216 ms

# Below is generated by plot.py at 2019-10-03 10:22:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 894.49 Mbit/s
95th percentile per-packet one-way delay: 42.292 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 894.49 Mbit/s
95th percentile per-packet one-way delay: 42.292 ms
Loss rate: 0.12%
```

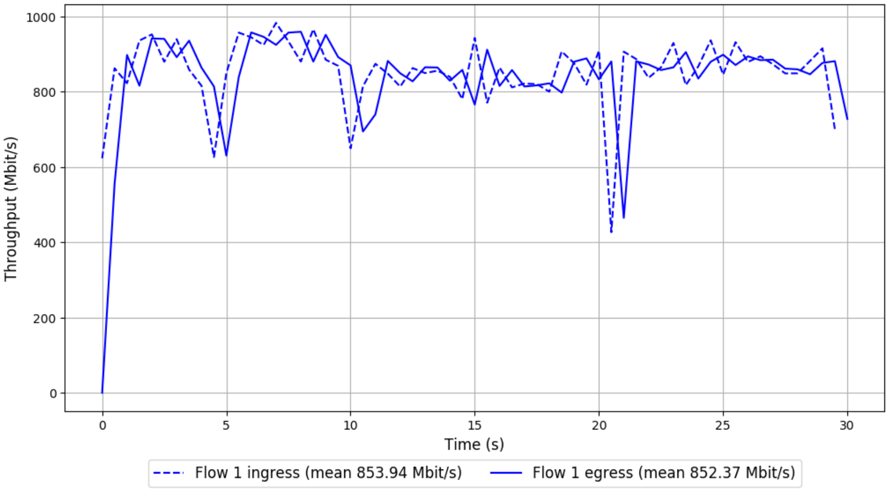
Run 3: Report of FillP-Sheep — Data Link

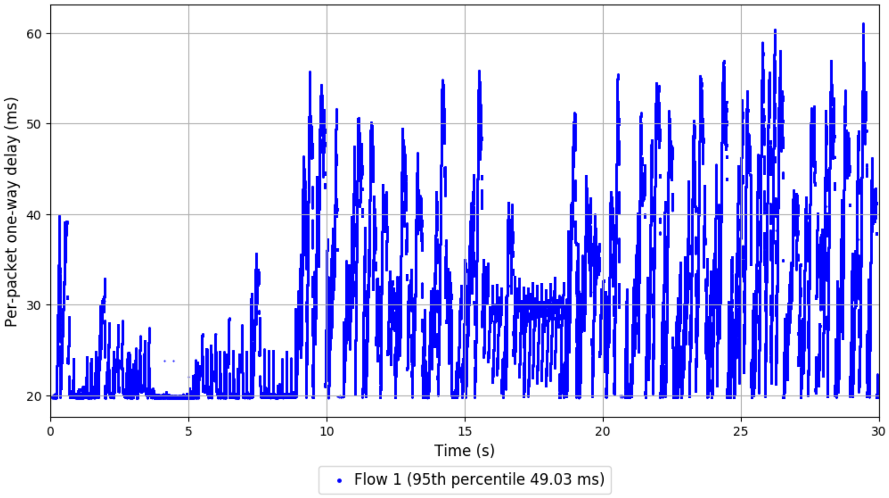




```
Run 4: Statistics of FillP-Sheep

Start at: 2019-10-03 08:43:35
End at: 2019-10-03 08:44:05
Local clock offset: 3.734 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2019-10-03 10:27:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 852.37 Mbit/s
95th percentile per-packet one-way delay: 49.030 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 852.37 Mbit/s
95th percentile per-packet one-way delay: 49.030 ms
Loss rate: 0.25%
```

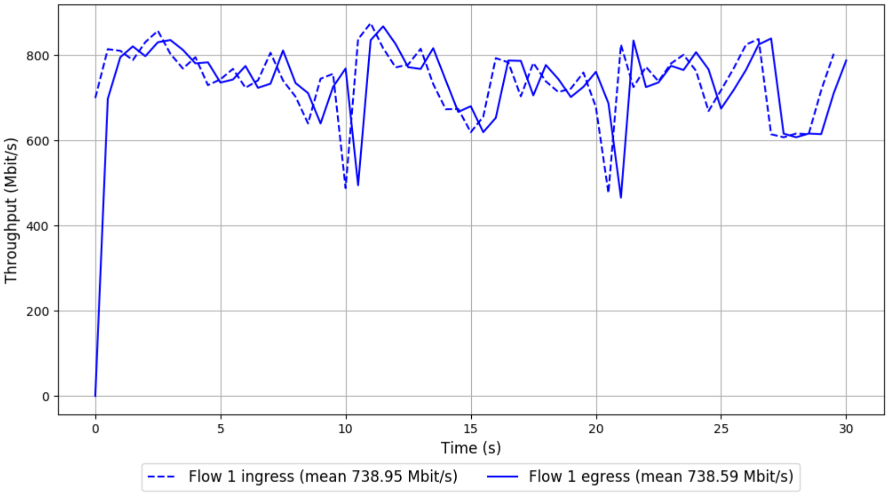
Run 4: Report of FillP-Sheep — Data Link

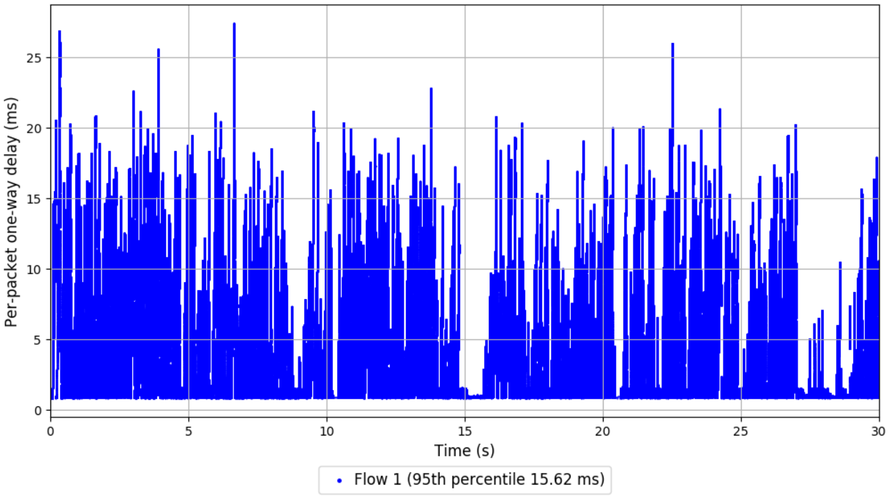




```
Run 5: Statistics of FillP-Sheep

Start at: 2019-10-03 09:17:24
End at: 2019-10-03 09:17:54
Local clock offset: 2.452 ms
Remote clock offset: 0.068 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 738.59 Mbit/s
95th percentile per-packet one-way delay: 15.619 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 738.59 Mbit/s
95th percentile per-packet one-way delay: 15.619 ms
Loss rate: 0.05%
```

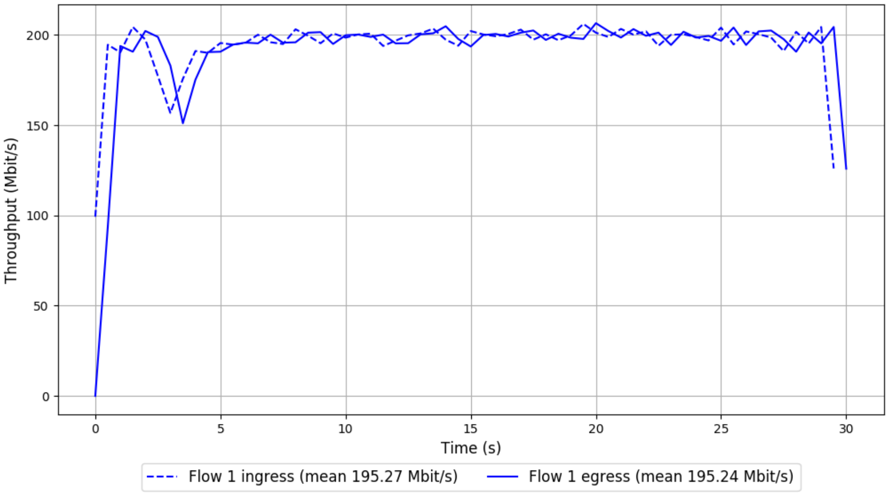
Run 5: Report of FillP-Sheep — Data Link

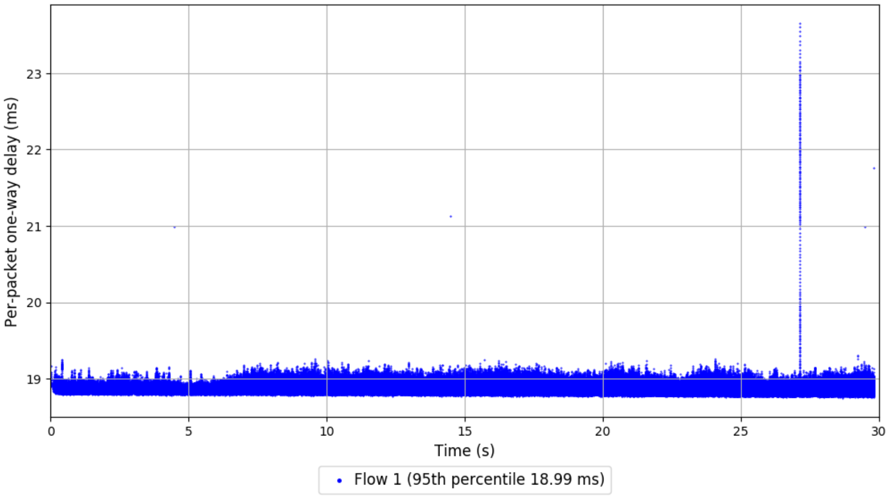




```
Run 1: Statistics of Indigo

Start at: 2019-10-03 06:56:06
End at: 2019-10-03 06:56:36
Local clock offset: 4.175 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.24 Mbit/s
95th percentile per-packet one-way delay: 18.991 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 195.24 Mbit/s
95th percentile per-packet one-way delay: 18.991 ms
Loss rate: 0.07%
```

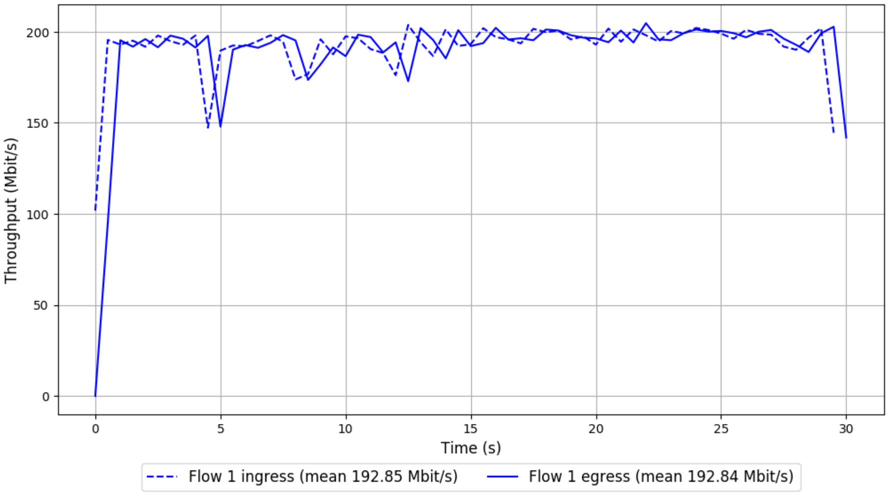
Run 1: Report of Indigo — Data Link

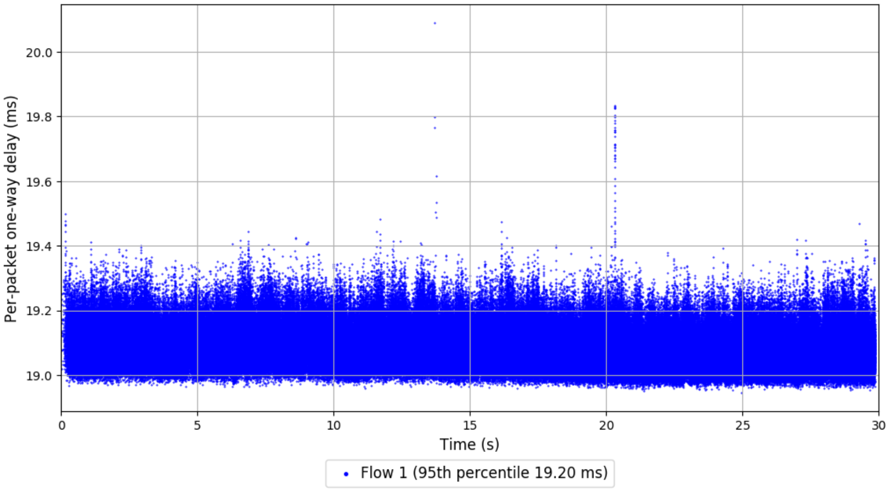




```
Run 2: Statistics of Indigo

Start at: 2019-10-03 07:30:33
End at: 2019-10-03 07:31:03
Local clock offset: 5.327 ms
Remote clock offset: 0.315 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.84 Mbit/s
95th percentile per-packet one-way delay: 19.199 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 192.84 Mbit/s
95th percentile per-packet one-way delay: 19.199 ms
Loss rate: 0.07%
```

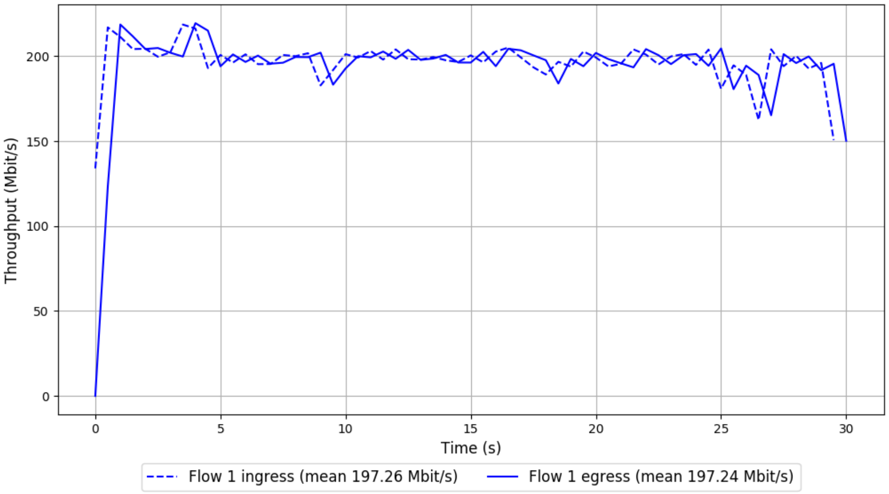
Run 2: Report of Indigo — Data Link

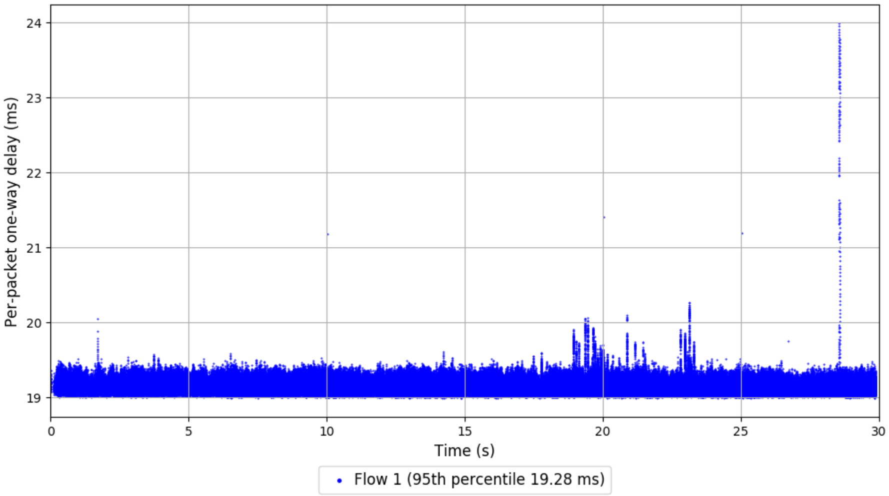




```
Run 3: Statistics of Indigo

Start at: 2019-10-03 08:05:00
End at: 2019-10-03 08:05:30
Local clock offset: 6.149 ms
Remote clock offset: 0.185 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.24 Mbit/s
95th percentile per-packet one-way delay: 19.281 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 197.24 Mbit/s
95th percentile per-packet one-way delay: 19.281 ms
Loss rate: 0.07%
```

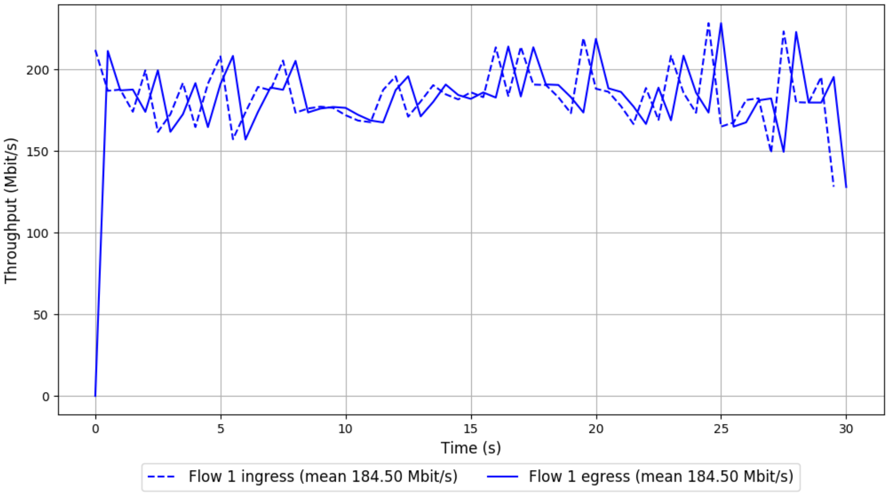
Run 3: Report of Indigo — Data Link

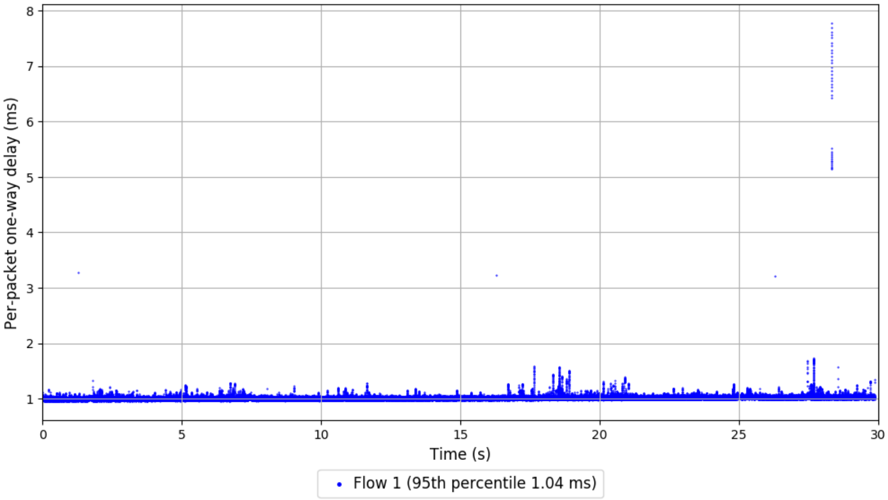




```
Run 4: Statistics of Indigo

Start at: 2019-10-03 08:39:14
End at: 2019-10-03 08:39:44
Local clock offset: 4.034 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.50 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 184.50 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.01%
```

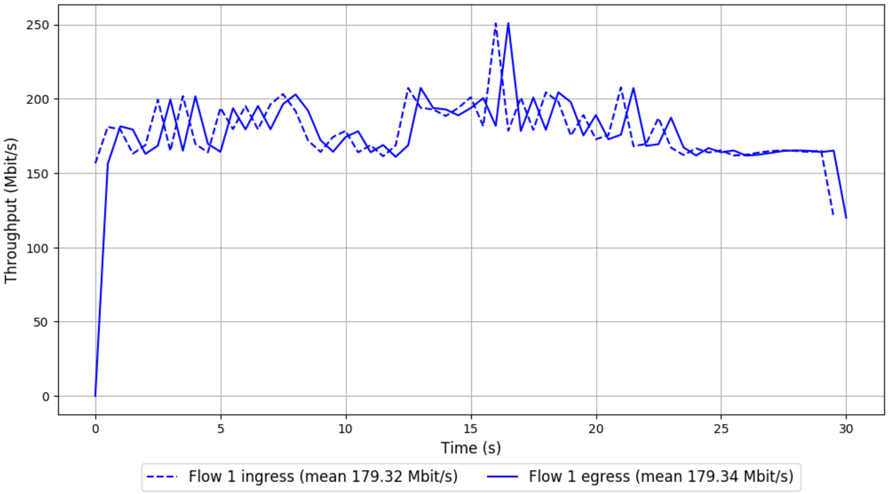
Run 4: Report of Indigo — Data Link

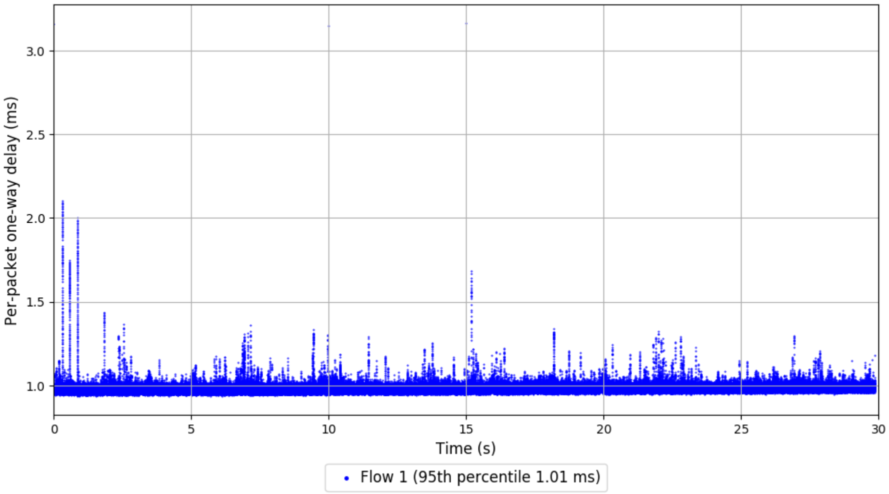




```
Run 5: Statistics of Indigo

Start at: 2019-10-03 09:13:09
End at: 2019-10-03 09:13:39
Local clock offset: 2.602 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.34 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 179.34 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.01%
```

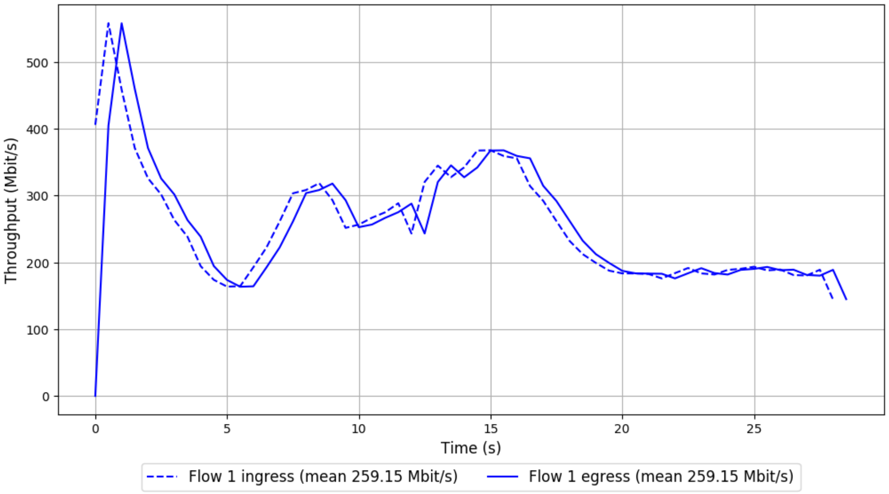
Run 5: Report of Indigo — Data Link

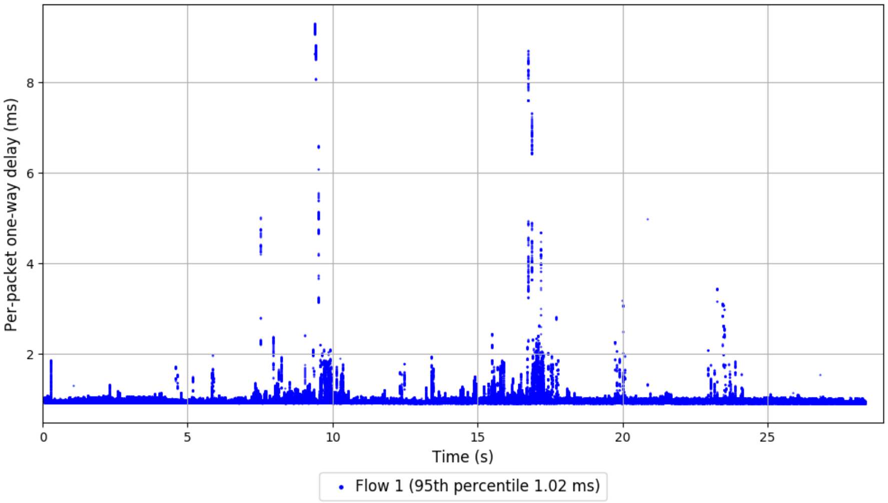




```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-10-03 06:59:03
End at: 2019-10-03 06:59:33
Local clock offset: 4.39 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 259.15 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 259.15 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.00%
```

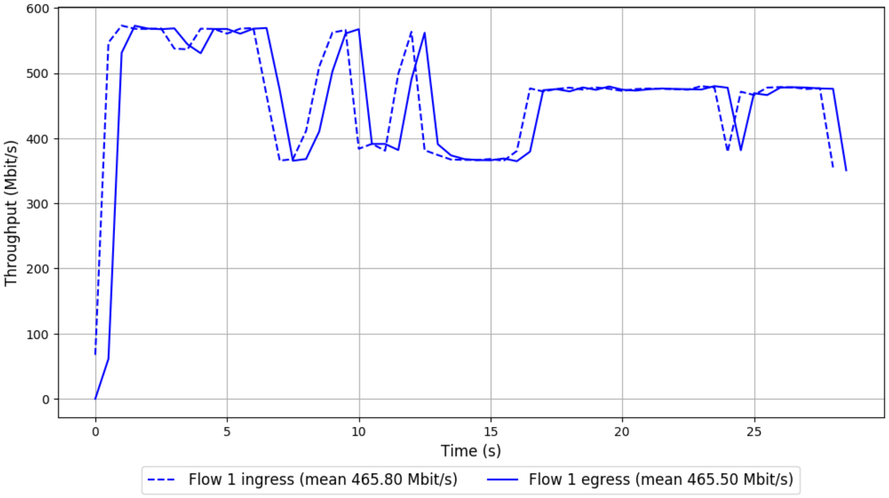
Run 1: Report of Indigo-MusesC3 — Data Link

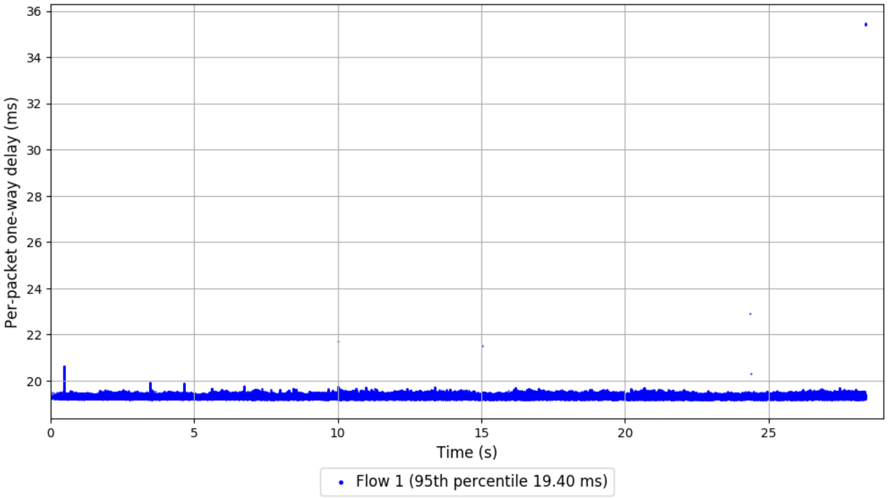




```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-10-03 07:33:31
End at: 2019-10-03 07:34:01
Local clock offset: 5.432 ms
Remote clock offset: 0.339 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.50 Mbit/s
95th percentile per-packet one-way delay: 19.404 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 465.50 Mbit/s
95th percentile per-packet one-way delay: 19.404 ms
Loss rate: 0.09%
```

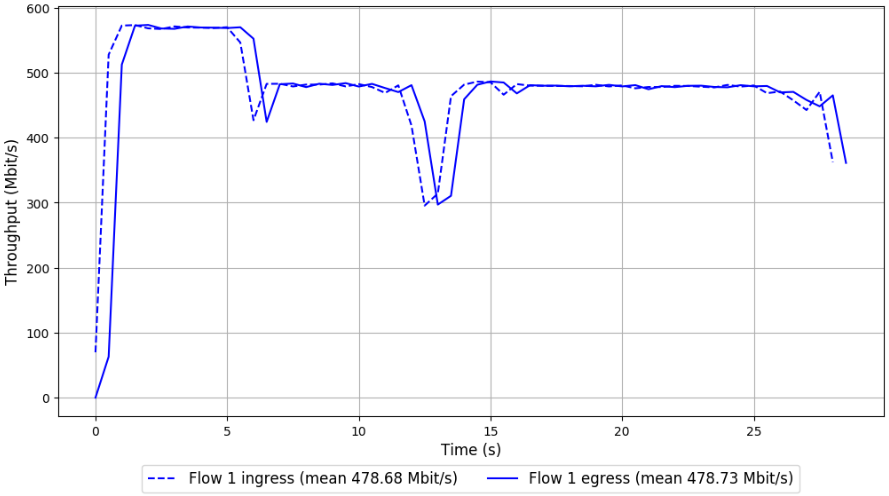
Run 2: Report of Indigo-MusesC3 — Data Link

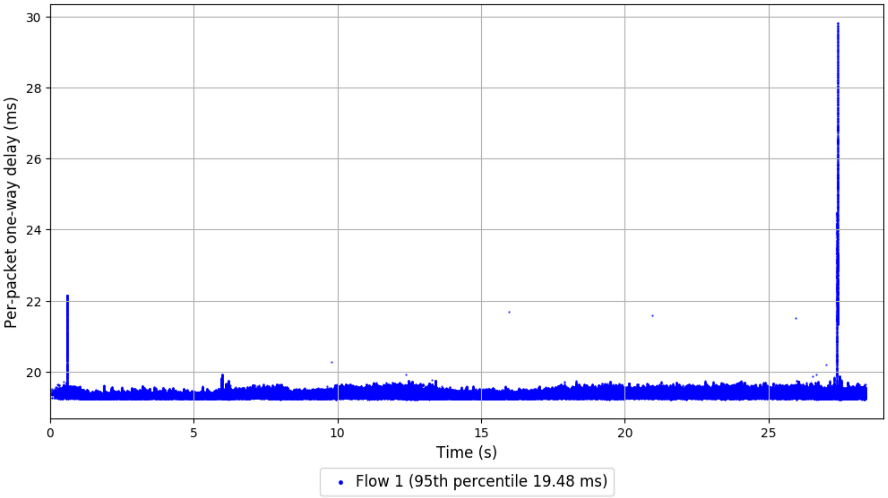




```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-10-03 08:07:55
End at: 2019-10-03 08:08:25
Local clock offset: 6.21 ms
Remote clock offset: 0.147 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 478.73 Mbit/s
95th percentile per-packet one-way delay: 19.475 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 478.73 Mbit/s
95th percentile per-packet one-way delay: 19.475 ms
Loss rate: 0.07%
```

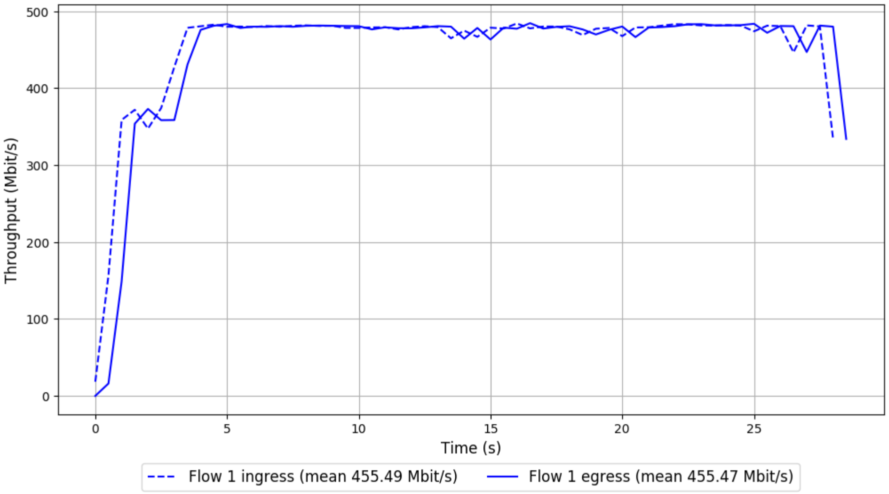
Run 3: Report of Indigo-MusesC3 — Data Link

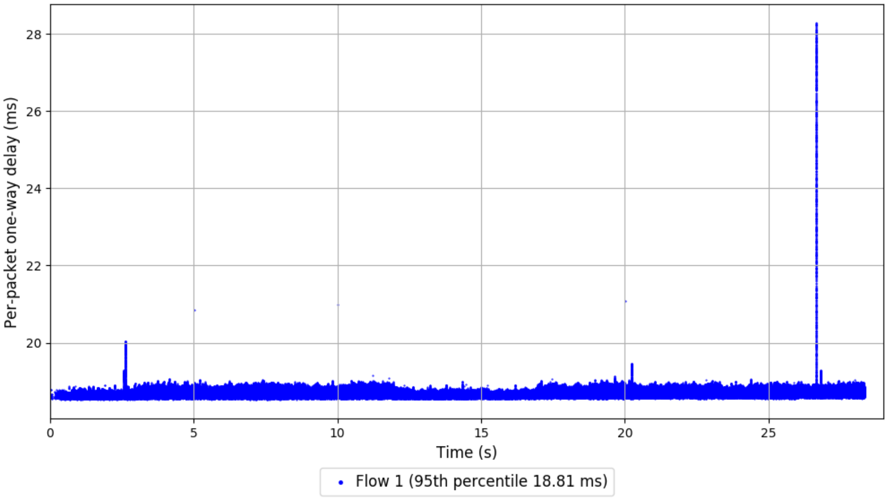




```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-10-03 08:42:07
End at: 2019-10-03 08:42:37
Local clock offset: 3.822 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 455.47 Mbit/s
95th percentile per-packet one-way delay: 18.807 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 455.47 Mbit/s
95th percentile per-packet one-way delay: 18.807 ms
Loss rate: 0.07%
```

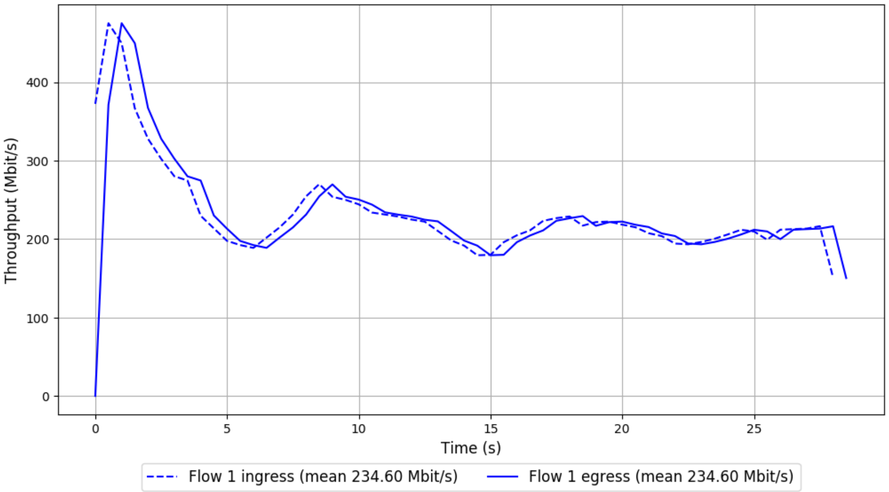
Run 4: Report of Indigo-MusesC3 — Data Link

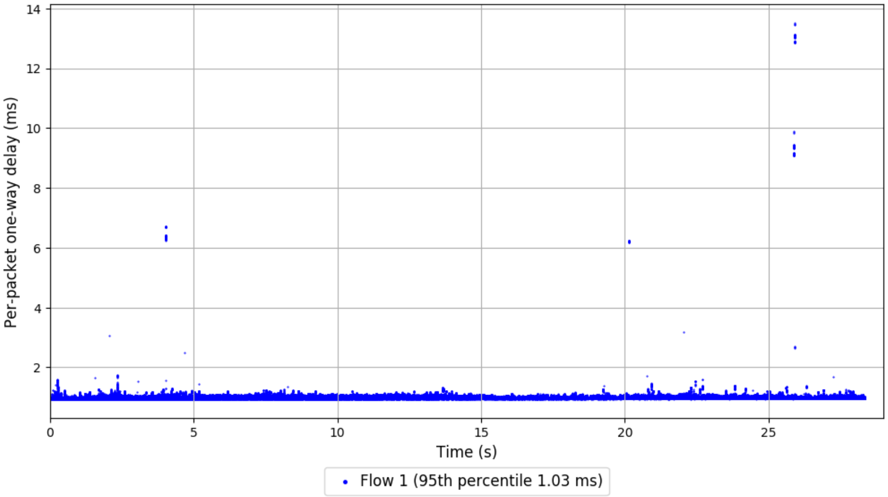




```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-10-03 09:16:03
End at: 2019-10-03 09:16:33
Local clock offset: 2.519 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.60 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 234.60 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.01%
```

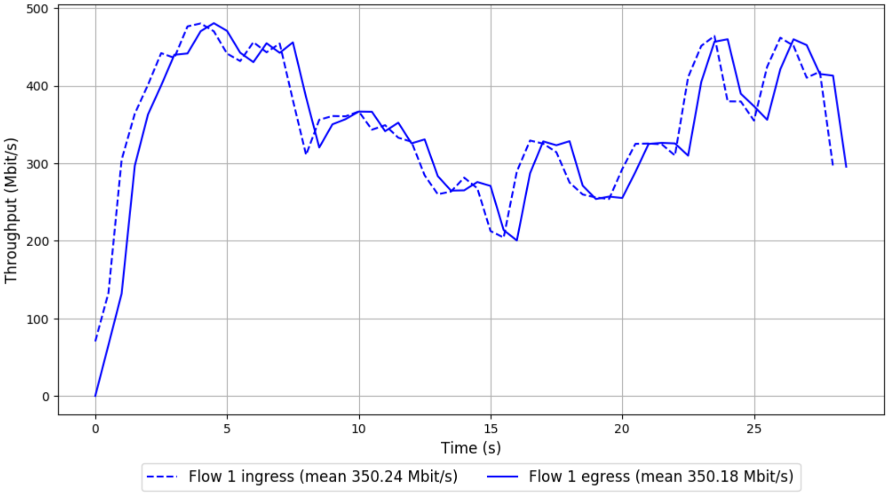
Run 5: Report of Indigo-MusesC3 — Data Link

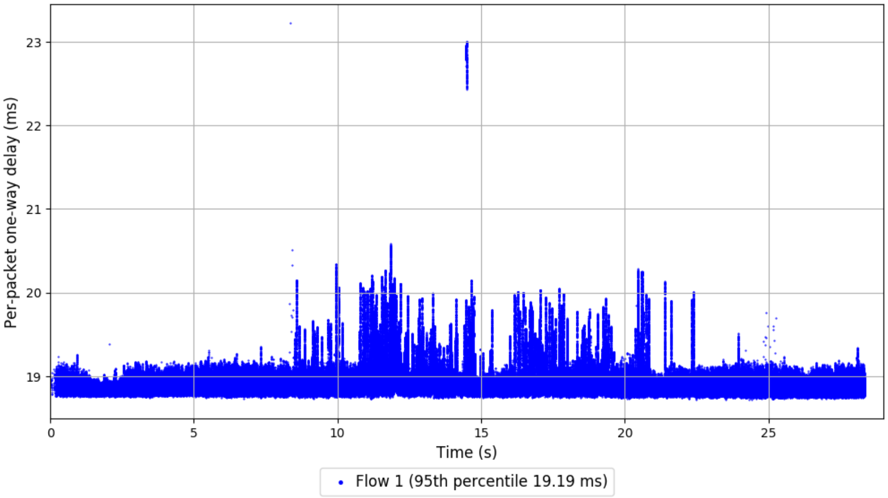




```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-10-03 07:22:13
End at: 2019-10-03 07:22:43
Local clock offset: 5.115 ms
Remote clock offset: 0.447 ms

# Below is generated by plot.py at 2019-10-03 10:29:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 350.18 Mbit/s
95th percentile per-packet one-way delay: 19.192 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 350.18 Mbit/s
95th percentile per-packet one-way delay: 19.192 ms
Loss rate: 0.09%
```

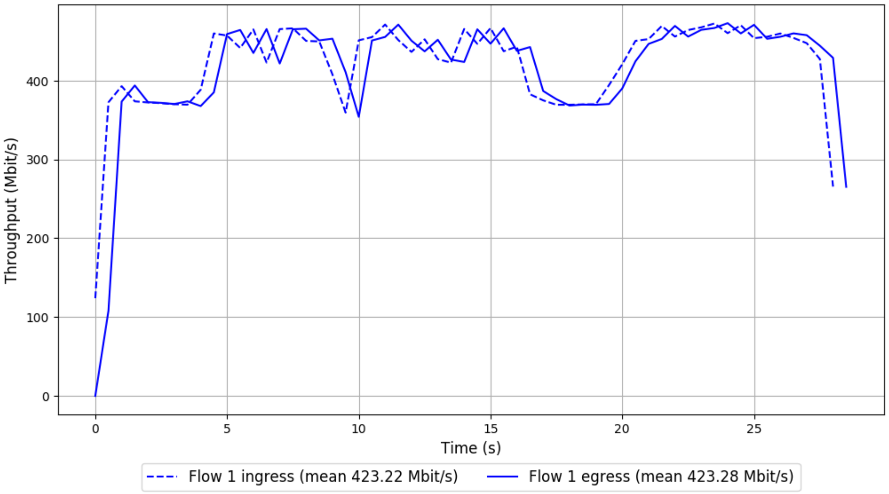
Run 1: Report of Indigo-MusesC5 — Data Link

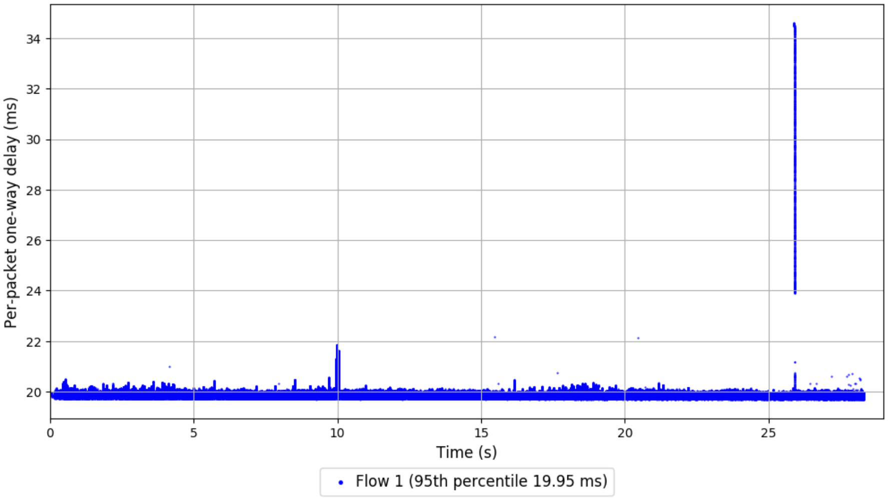




```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-10-03 07:56:10
End at: 2019-10-03 07:56:40
Local clock offset: 5.966 ms
Remote clock offset: 0.352 ms

# Below is generated by plot.py at 2019-10-03 10:29:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 423.28 Mbit/s
95th percentile per-packet one-way delay: 19.953 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 423.28 Mbit/s
95th percentile per-packet one-way delay: 19.953 ms
Loss rate: 0.07%
```

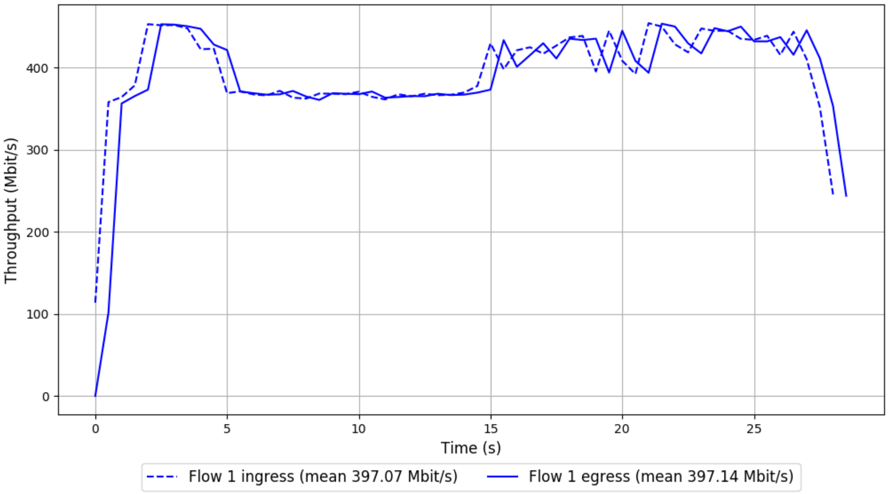
Run 2: Report of Indigo-MusesC5 — Data Link

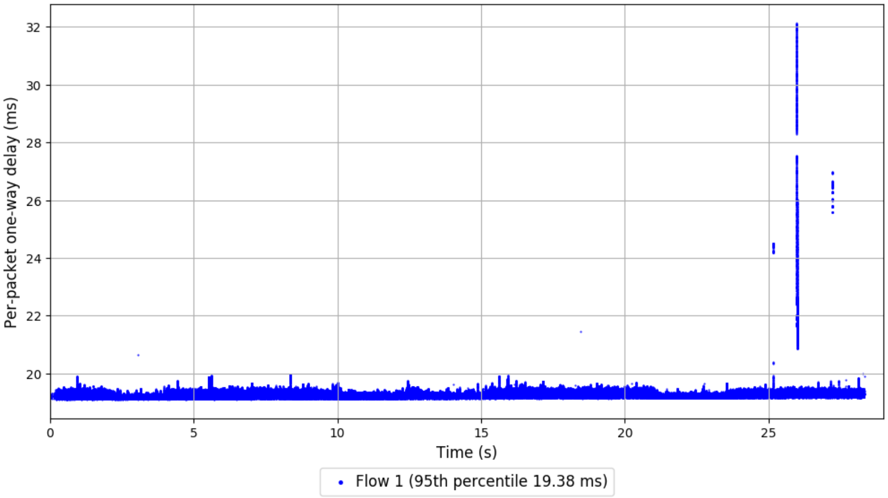




```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-10-03 08:30:40
End at: 2019-10-03 08:31:10
Local clock offset: 5.067 ms
Remote clock offset: 0.161 ms

# Below is generated by plot.py at 2019-10-03 10:30:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 397.14 Mbit/s
95th percentile per-packet one-way delay: 19.379 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 397.14 Mbit/s
95th percentile per-packet one-way delay: 19.379 ms
Loss rate: 0.07%
```

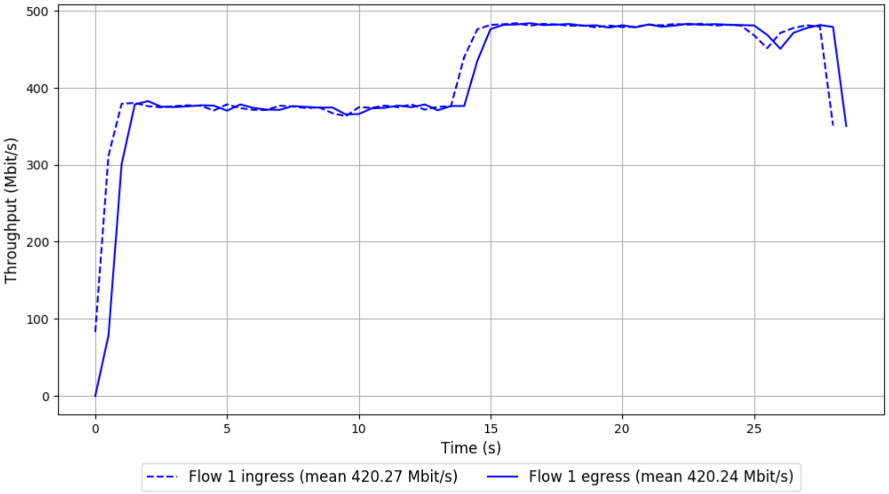
Run 3: Report of Indigo-MusesC5 — Data Link

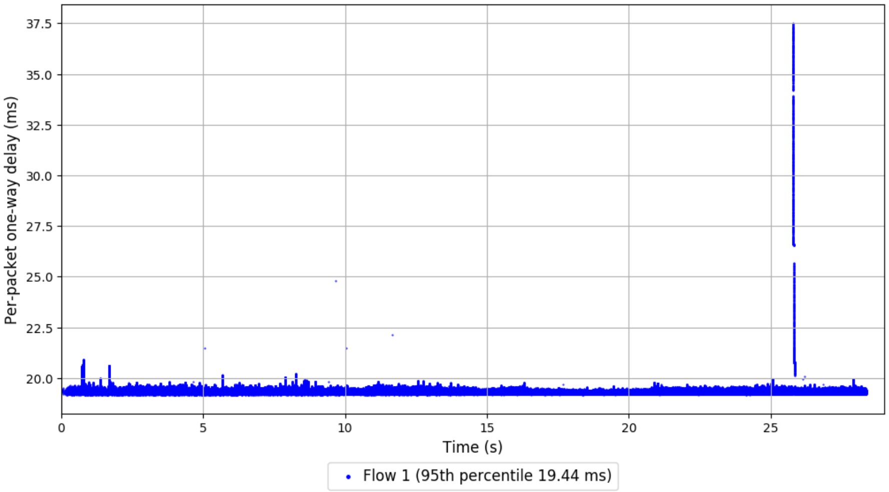




```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-10-03 09:04:28
End at: 2019-10-03 09:04:58
Local clock offset: 2.895 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-10-03 10:31:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 420.24 Mbit/s
95th percentile per-packet one-way delay: 19.443 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 420.24 Mbit/s
95th percentile per-packet one-way delay: 19.443 ms
Loss rate: 0.08%
```

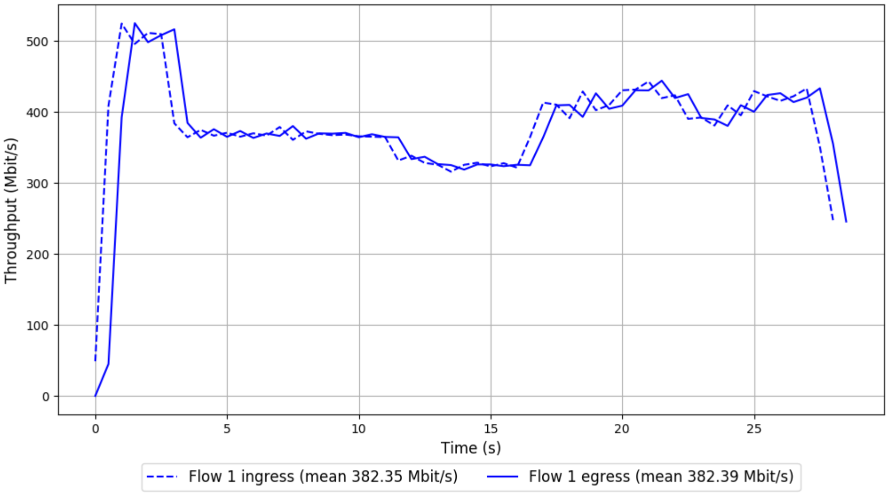
Run 4: Report of Indigo-MusesC5 — Data Link

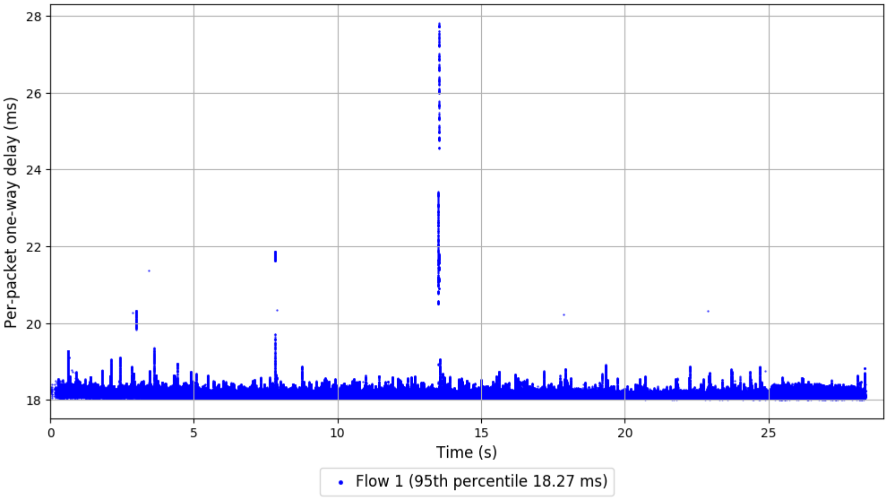




```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-10-03 09:38:07
End at: 2019-10-03 09:38:37
Local clock offset: 4.28 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2019-10-03 10:31:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 382.39 Mbit/s
95th percentile per-packet one-way delay: 18.268 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 382.39 Mbit/s
95th percentile per-packet one-way delay: 18.268 ms
Loss rate: 0.06%
```

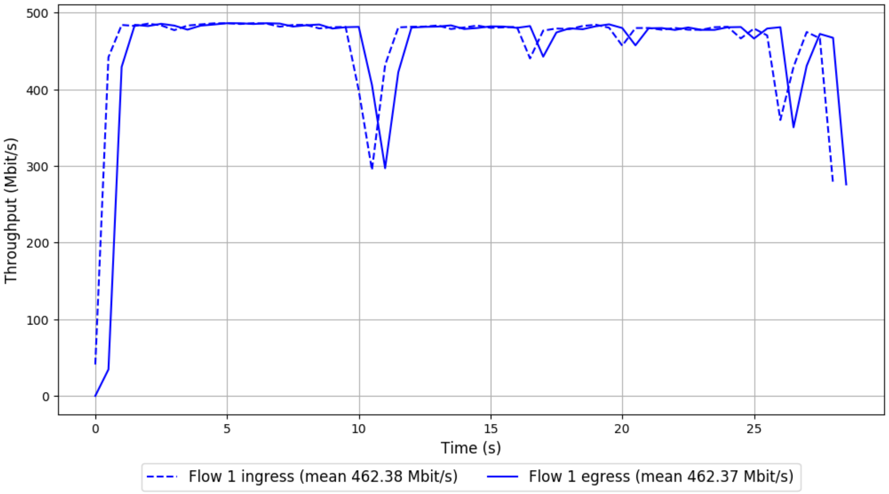
Run 5: Report of Indigo-MusesC5 — Data Link

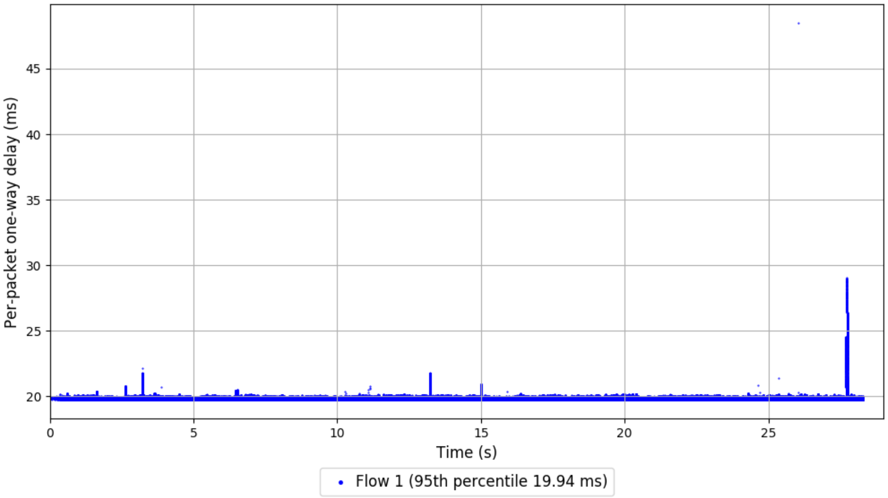




```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-10-03 07:03:27
End at: 2019-10-03 07:03:57
Local clock offset: 4.602 ms
Remote clock offset: 0.127 ms

# Below is generated by plot.py at 2019-10-03 10:32:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 462.37 Mbit/s
95th percentile per-packet one-way delay: 19.942 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 462.37 Mbit/s
95th percentile per-packet one-way delay: 19.942 ms
Loss rate: 0.08%
```

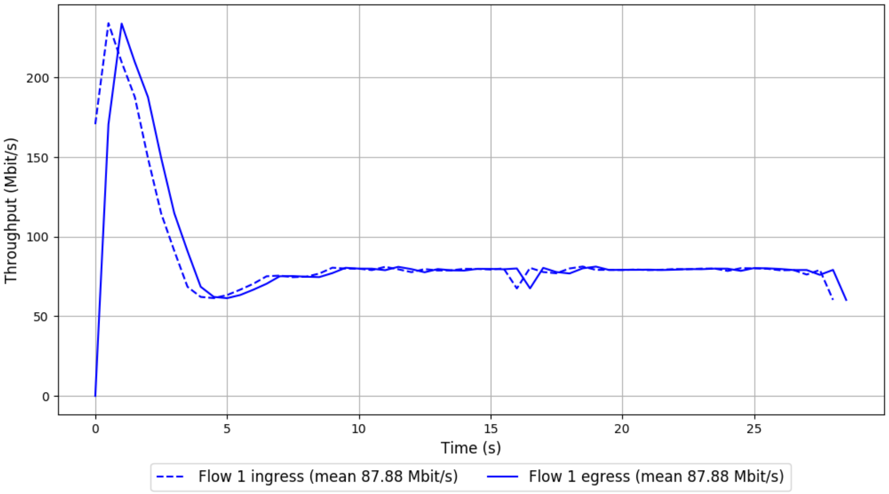
Run 1: Report of Indigo-MusesD — Data Link

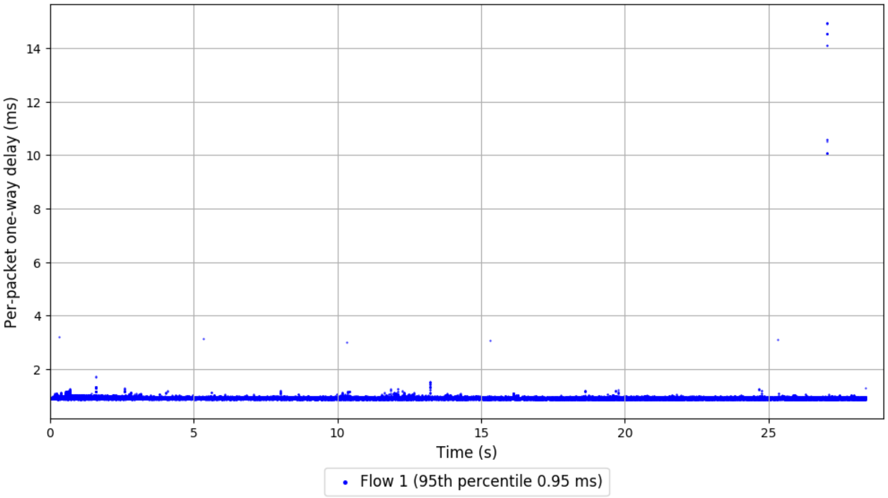




```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-10-03 07:37:50
End at: 2019-10-03 07:38:20
Local clock offset: 5.545 ms
Remote clock offset: 0.409 ms

# Below is generated by plot.py at 2019-10-03 10:32:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 0.955 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 0.955 ms
Loss rate: 0.00%
```

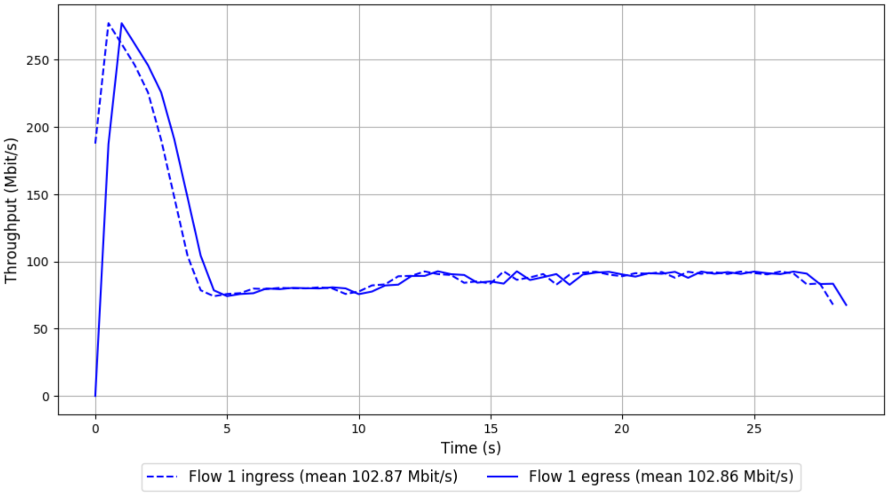
Run 2: Report of Indigo-MusesD — Data Link

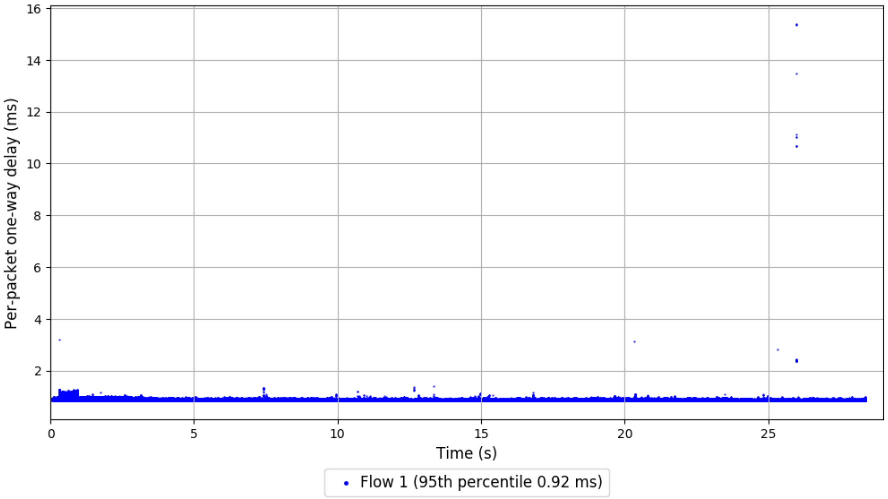




```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-10-03 08:12:28
End at: 2019-10-03 08:12:58
Local clock offset: 6.302 ms
Remote clock offset: 0.269 ms

# Below is generated by plot.py at 2019-10-03 10:32:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 102.86 Mbit/s
95th percentile per-packet one-way delay: 0.920 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 102.86 Mbit/s
95th percentile per-packet one-way delay: 0.920 ms
Loss rate: 0.01%
```

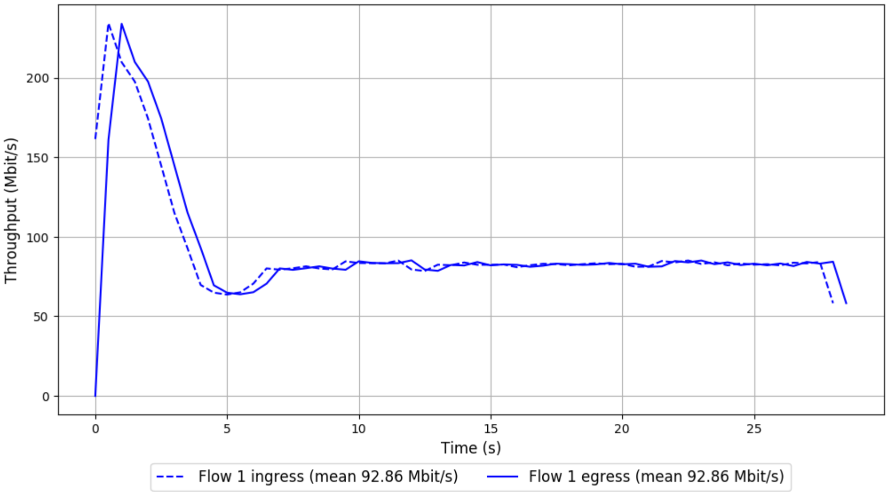
Run 3: Report of Indigo-MusesD — Data Link

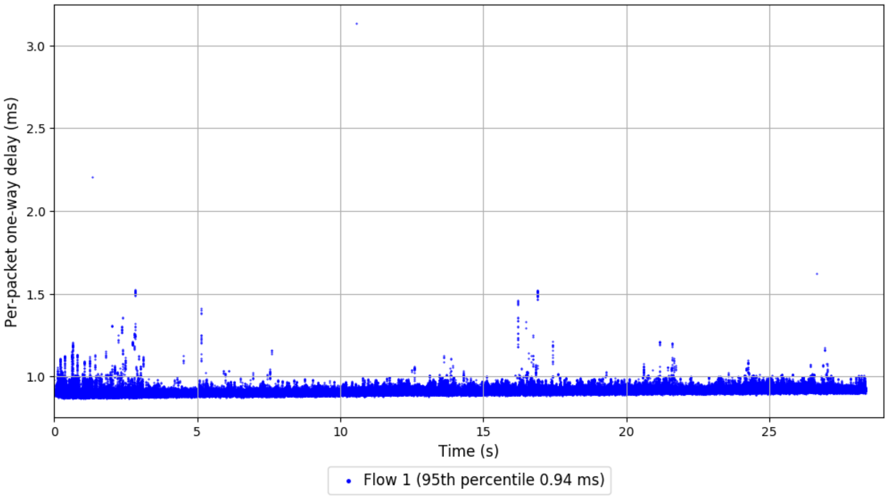




```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-10-03 08:46:25
End at: 2019-10-03 08:46:55
Local clock offset: 3.561 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2019-10-03 10:32:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 0.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 0.942 ms
Loss rate: 0.00%
```

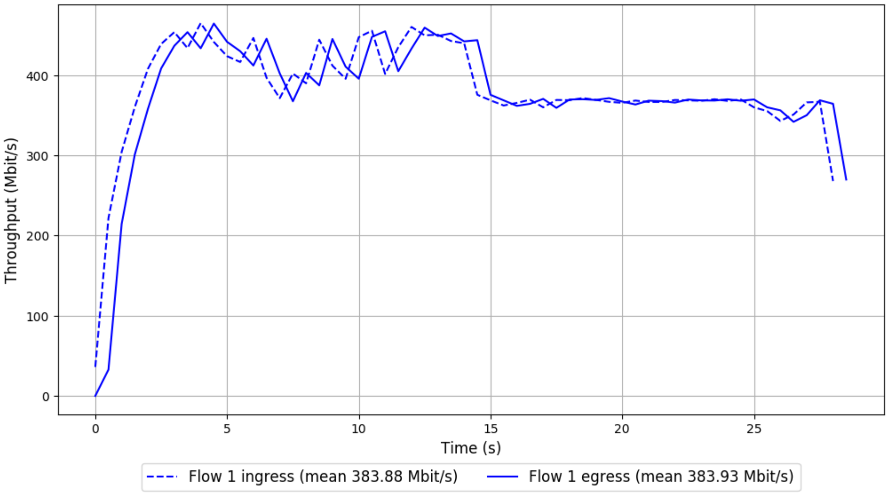
Run 4: Report of Indigo-MusesD — Data Link

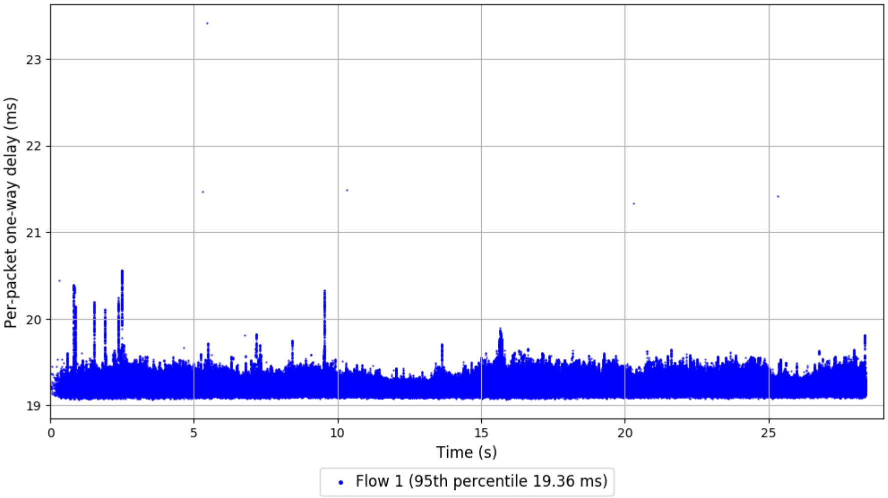




```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-10-03 09:20:11
End at: 2019-10-03 09:20:41
Local clock offset: 2.359 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2019-10-03 10:33:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 383.93 Mbit/s
95th percentile per-packet one-way delay: 19.362 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 383.93 Mbit/s
95th percentile per-packet one-way delay: 19.362 ms
Loss rate: 0.06%
```

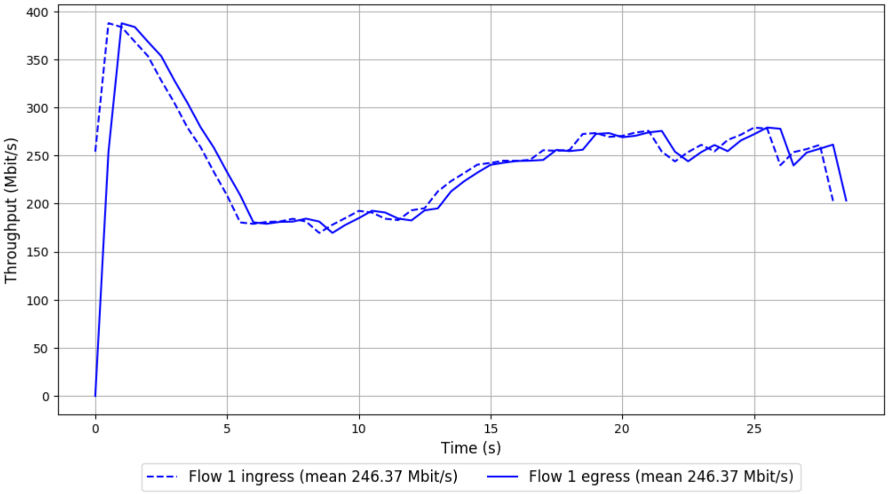
Run 5: Report of Indigo-MusesD — Data Link

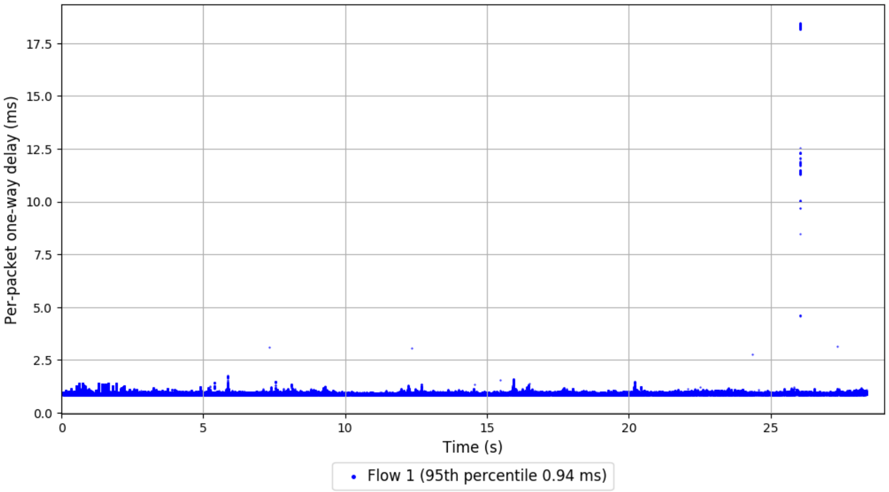




```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-10-03 07:16:27
End at: 2019-10-03 07:16:57
Local clock offset: 4.961 ms
Remote clock offset: 0.644 ms

# Below is generated by plot.py at 2019-10-03 10:33:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.37 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 246.37 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.00%
```

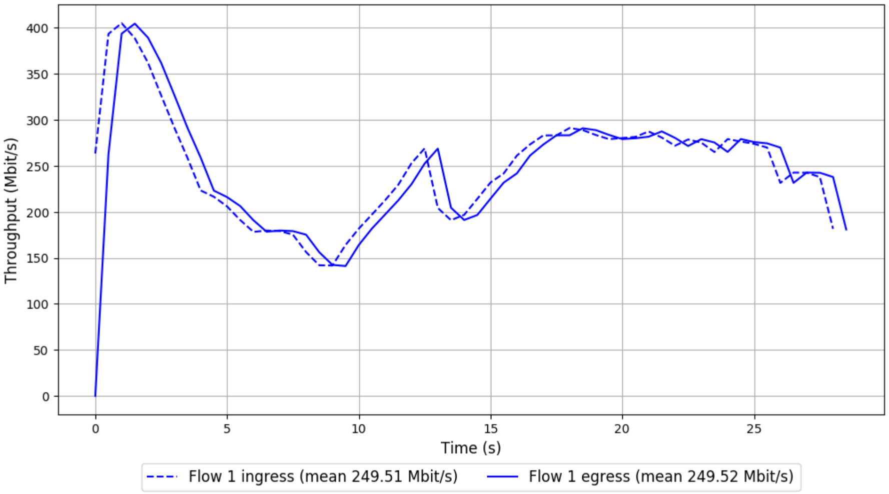
Run 1: Report of Indigo-MusesT — Data Link

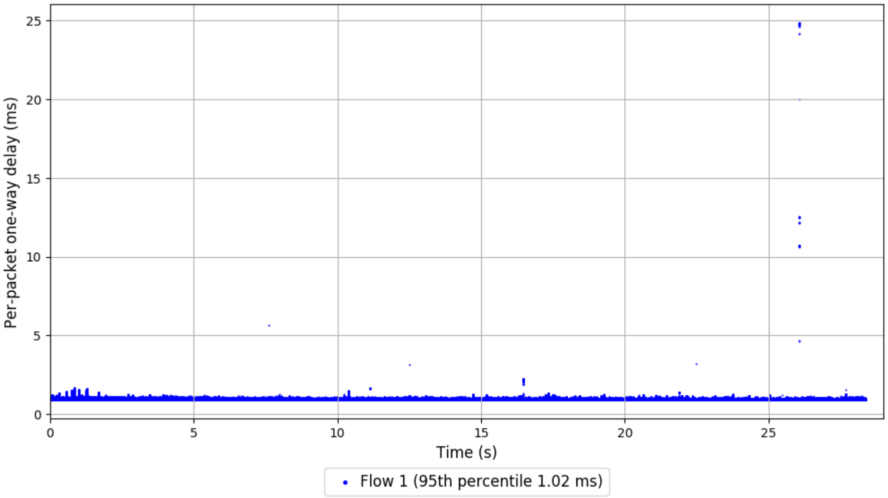




```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-10-03 07:50:29
End at: 2019-10-03 07:50:59
Local clock offset: 5.864 ms
Remote clock offset: 0.576 ms

# Below is generated by plot.py at 2019-10-03 10:33:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.52 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 249.52 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 0.01%
```

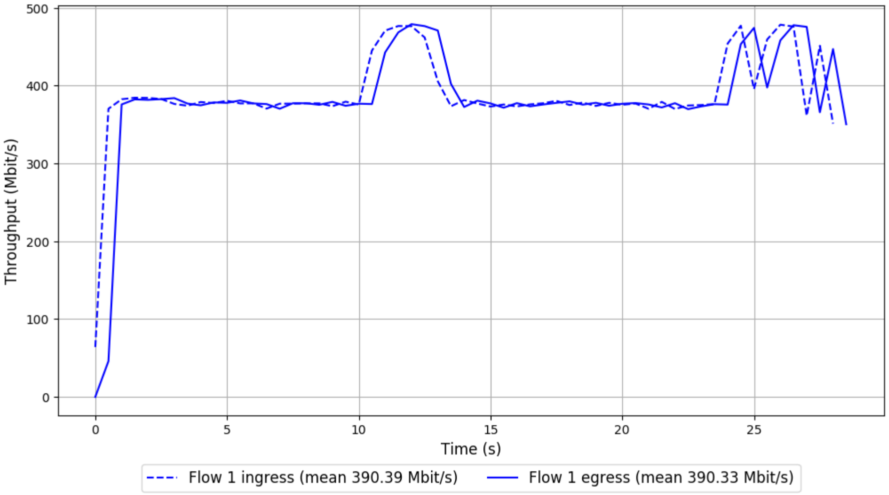
Run 2: Report of Indigo-MusesT — Data Link

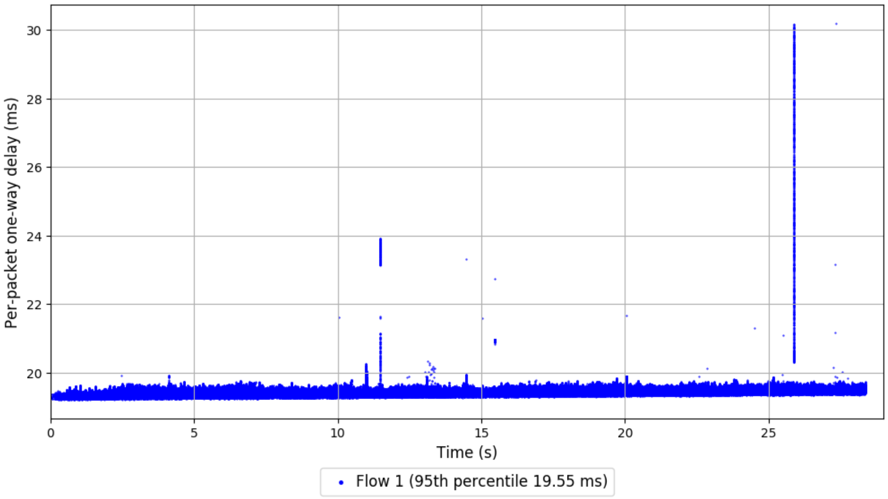




```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-10-03 08:24:54
End at: 2019-10-03 08:25:24
Local clock offset: 6.504 ms
Remote clock offset: 0.319 ms

# Below is generated by plot.py at 2019-10-03 10:33:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 390.33 Mbit/s
95th percentile per-packet one-way delay: 19.547 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 390.33 Mbit/s
95th percentile per-packet one-way delay: 19.547 ms
Loss rate: 0.09%
```

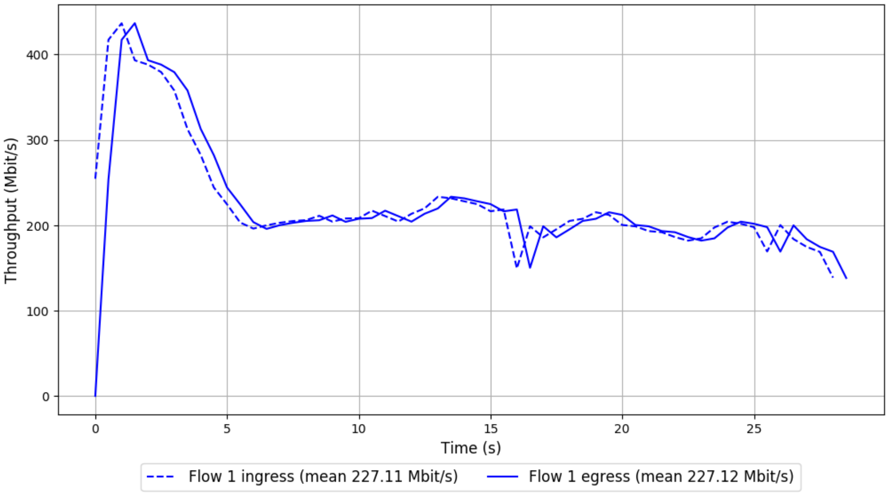
Run 3: Report of Indigo-MusesT — Data Link

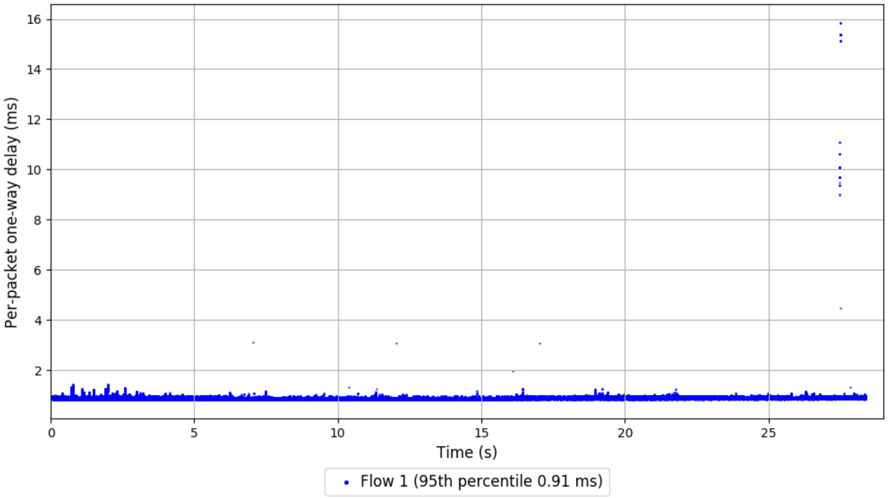




```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-10-03 08:58:41
End at: 2019-10-03 08:59:12
Local clock offset: 3.075 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2019-10-03 10:33:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.12 Mbit/s
95th percentile per-packet one-way delay: 0.909 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.12 Mbit/s
95th percentile per-packet one-way delay: 0.909 ms
Loss rate: 0.01%
```

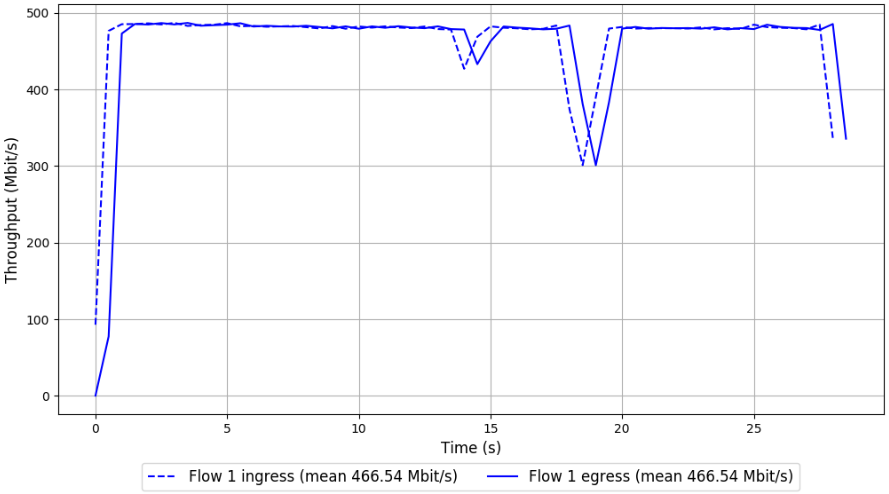
Run 4: Report of Indigo-MusesT — Data Link

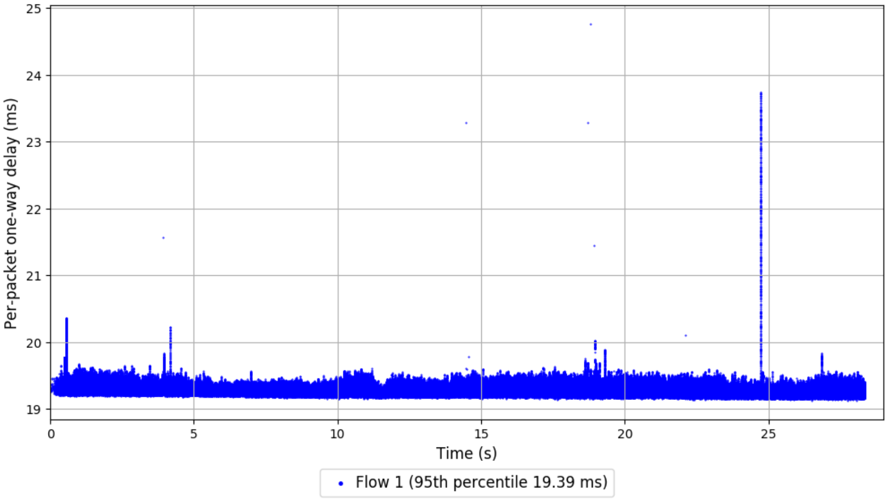




```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-10-03 09:32:19
End at: 2019-10-03 09:32:49
Local clock offset: 3.762 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-10-03 10:36:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 466.54 Mbit/s
95th percentile per-packet one-way delay: 19.395 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 466.54 Mbit/s
95th percentile per-packet one-way delay: 19.395 ms
Loss rate: 0.07%
```

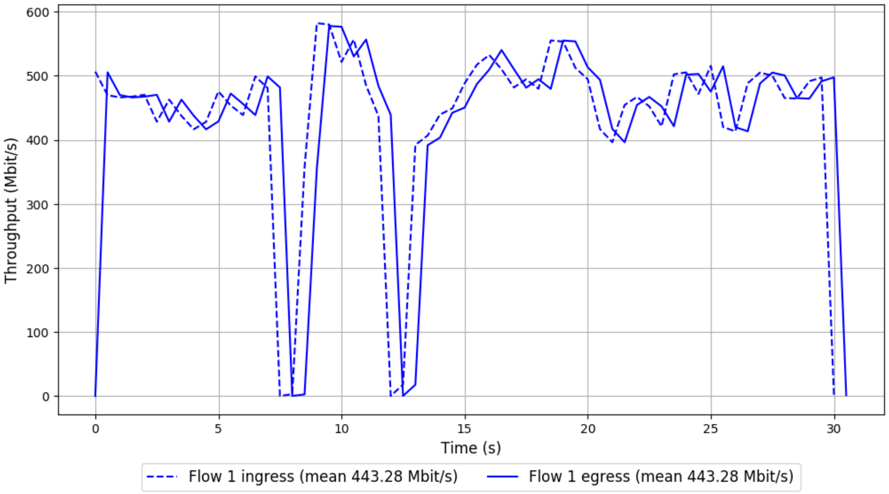
Run 5: Report of Indigo-MusesT — Data Link

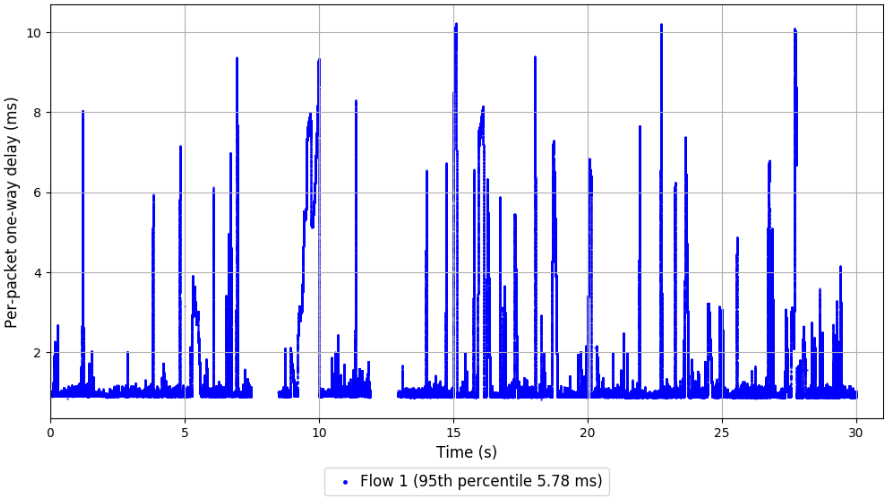




```
Run 1: Statistics of LEDBAT

Start at: 2019-10-03 07:20:41
End at: 2019-10-03 07:21:11
Local clock offset: 5.075 ms
Remote clock offset: 0.482 ms

# Below is generated by plot.py at 2019-10-03 10:36:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 443.28 Mbit/s
95th percentile per-packet one-way delay: 5.776 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 443.28 Mbit/s
95th percentile per-packet one-way delay: 5.776 ms
Loss rate: 0.01%
```

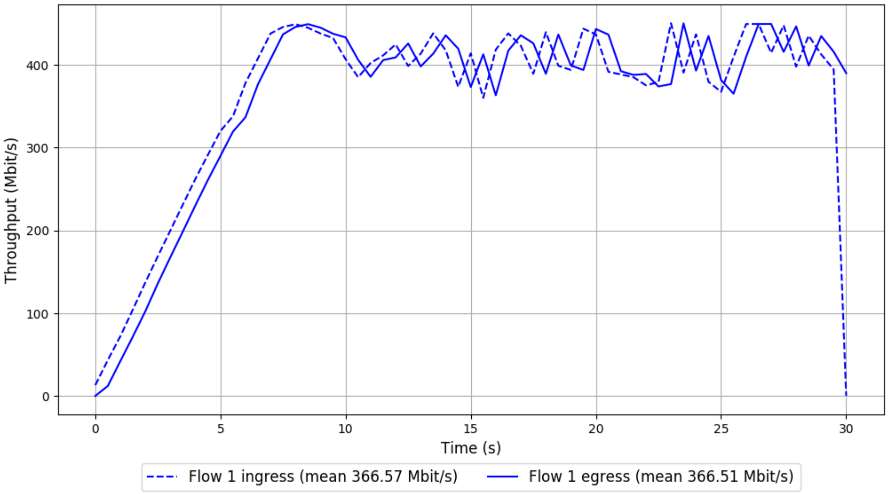
Run 1: Report of LEDBAT — Data Link

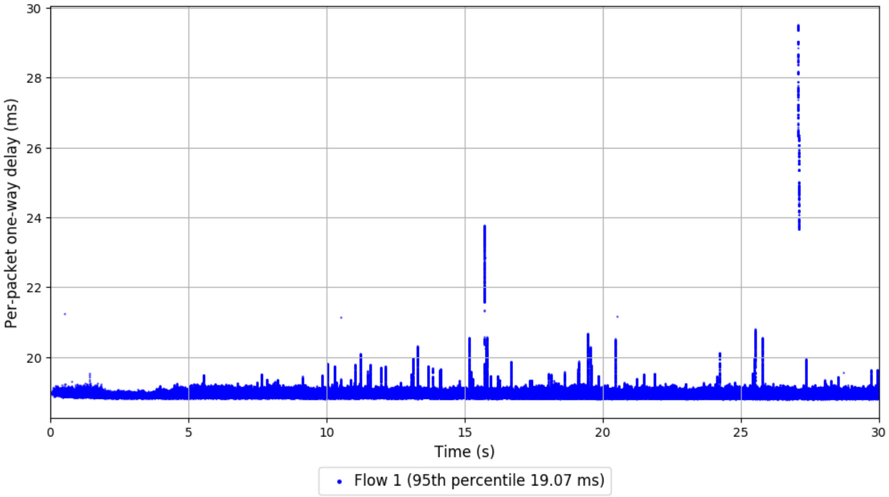




```
Run 2: Statistics of LEDBAT

Start at: 2019-10-03 07:54:41
End at: 2019-10-03 07:55:11
Local clock offset: 5.935 ms
Remote clock offset: 0.402 ms

# Below is generated by plot.py at 2019-10-03 10:36:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.51 Mbit/s
95th percentile per-packet one-way delay: 19.069 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 366.51 Mbit/s
95th percentile per-packet one-way delay: 19.069 ms
Loss rate: 0.08%
```

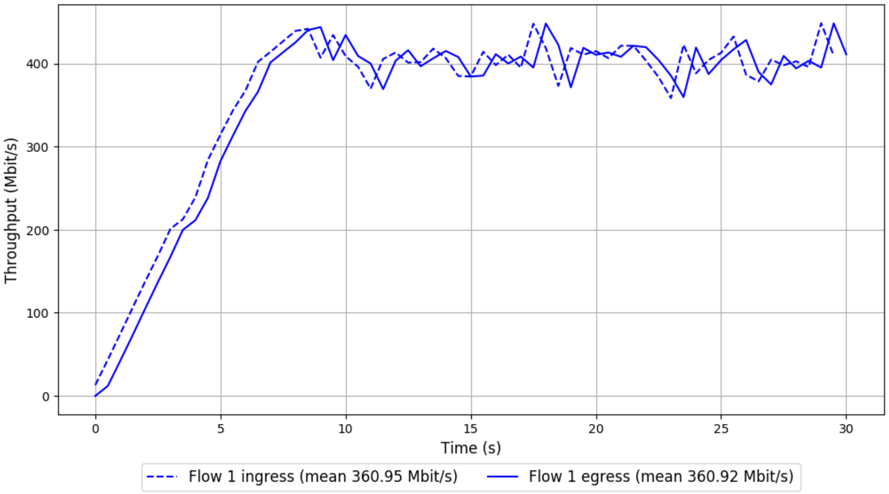
Run 2: Report of LEDBAT — Data Link

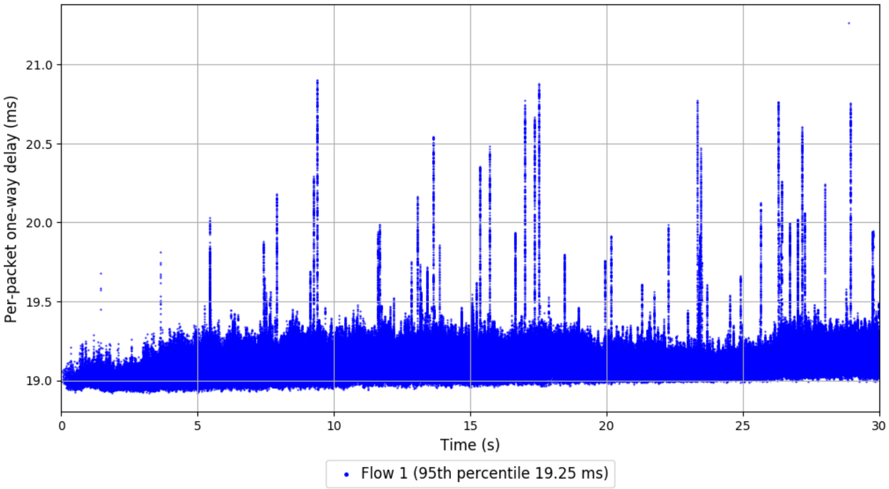




```
Run 3: Statistics of LEDBAT

Start at: 2019-10-03 08:29:11
End at: 2019-10-03 08:29:41
Local clock offset: 5.363 ms
Remote clock offset: 0.193 ms

# Below is generated by plot.py at 2019-10-03 10:36:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 360.92 Mbit/s
95th percentile per-packet one-way delay: 19.247 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 360.92 Mbit/s
95th percentile per-packet one-way delay: 19.247 ms
Loss rate: 0.07%
```

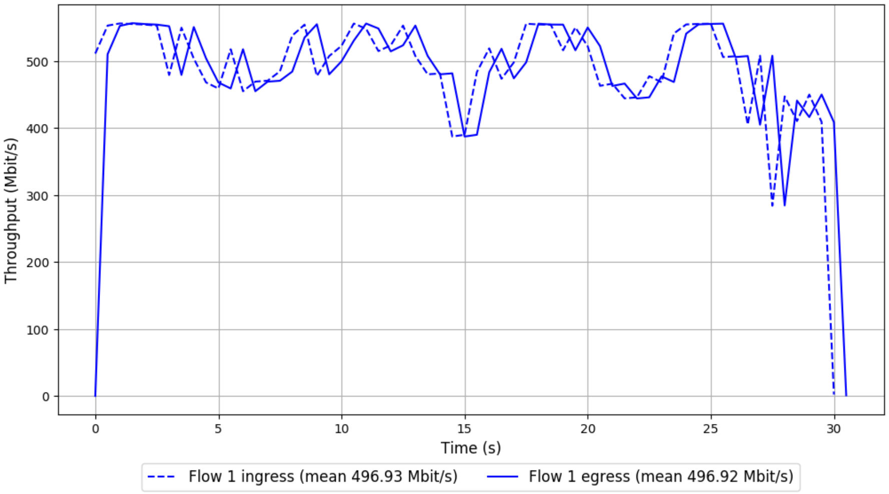
Run 3: Report of LEDBAT — Data Link

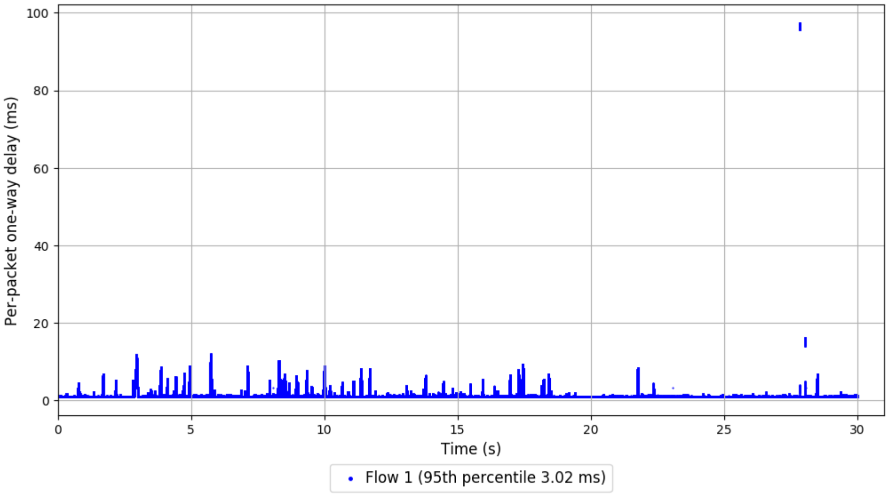




```
Run 4: Statistics of LEDBAT

Start at: 2019-10-03 09:02:54
End at: 2019-10-03 09:03:24
Local clock offset: 2.964 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-10-03 10:38:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 496.92 Mbit/s
95th percentile per-packet one-way delay: 3.024 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 496.92 Mbit/s
95th percentile per-packet one-way delay: 3.024 ms
Loss rate: 0.01%
```

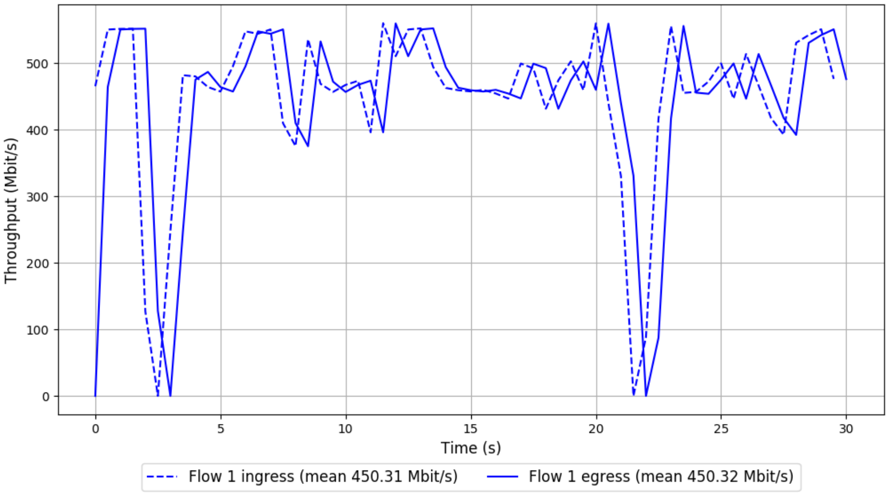
Run 4: Report of LEDBAT — Data Link

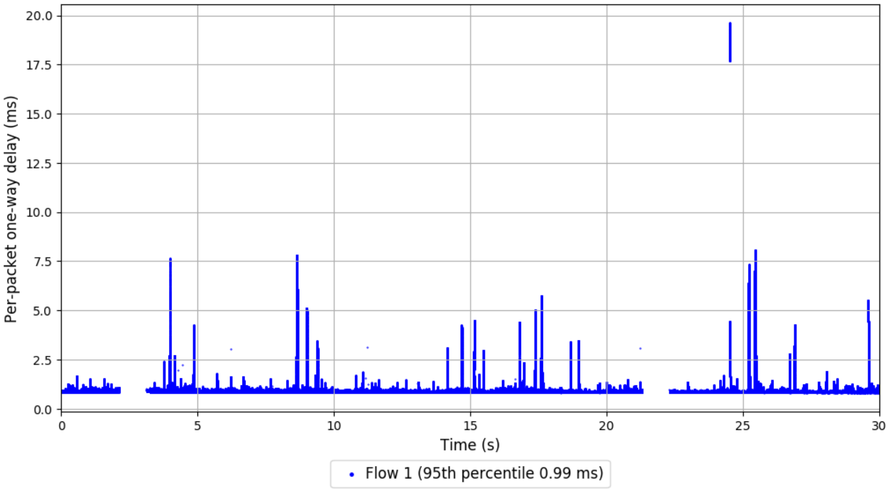




```
Run 5: Statistics of LEDBAT

Start at: 2019-10-03 09:36:36
End at: 2019-10-03 09:37:06
Local clock offset: 4.166 ms
Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2019-10-03 10:38:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 450.32 Mbit/s
95th percentile per-packet one-way delay: 0.991 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 450.32 Mbit/s
95th percentile per-packet one-way delay: 0.991 ms
Loss rate: 0.00%
```

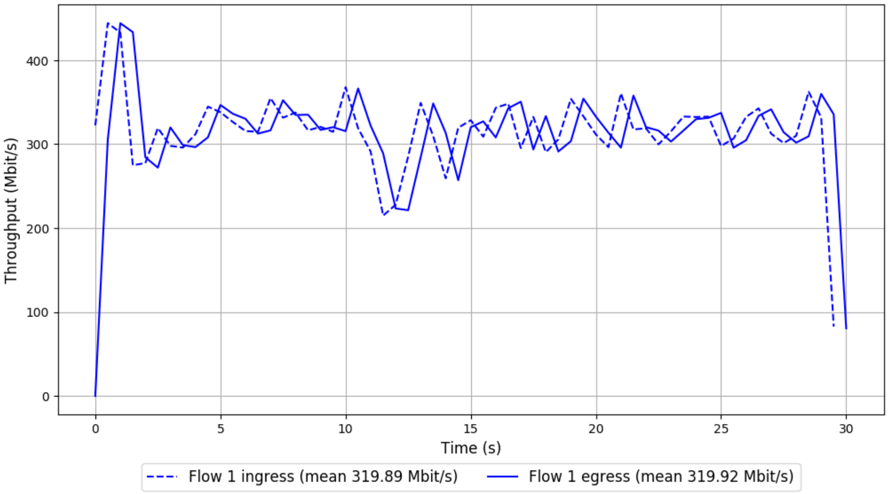
Run 5: Report of LEDBAT — Data Link

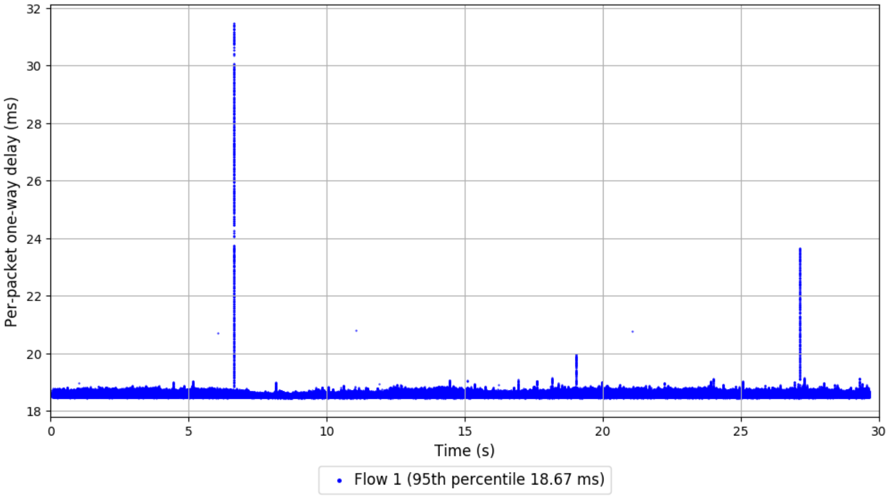




```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 07:10:37
End at: 2019-10-03 07:11:07
Local clock offset: 4.827 ms
Remote clock offset: 0.457 ms

# Below is generated by plot.py at 2019-10-03 10:38:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 319.92 Mbit/s
95th percentile per-packet one-way delay: 18.671 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 319.92 Mbit/s
95th percentile per-packet one-way delay: 18.671 ms
Loss rate: 0.07%
```

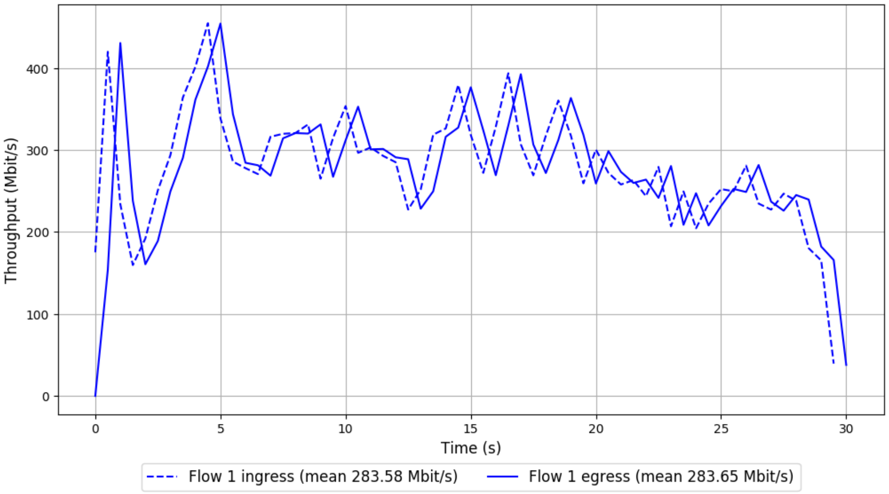
Run 1: Report of Muses_DecisionTree — Data Link

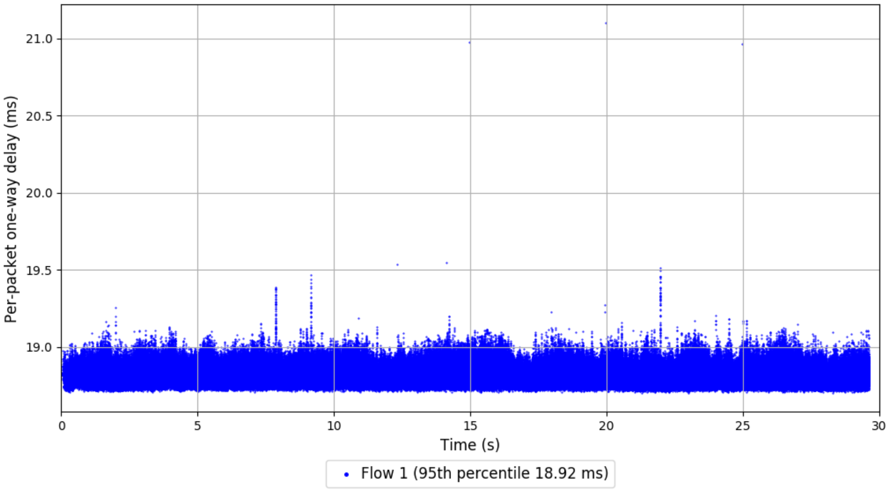




```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 07:44:48
End at: 2019-10-03 07:45:18
Local clock offset: 5.714 ms
Remote clock offset: 0.573 ms

# Below is generated by plot.py at 2019-10-03 10:38:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.65 Mbit/s
95th percentile per-packet one-way delay: 18.916 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 283.65 Mbit/s
95th percentile per-packet one-way delay: 18.916 ms
Loss rate: 0.05%
```

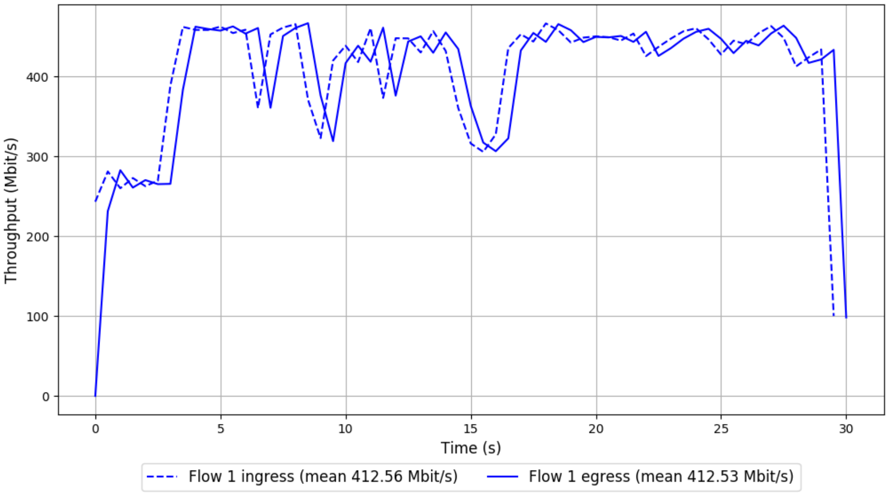
Run 2: Report of Muses_DecisionTree — Data Link

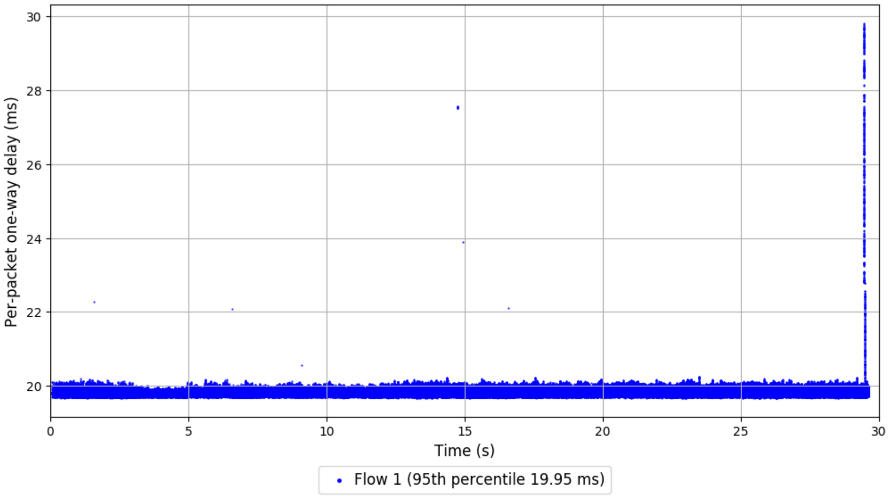




```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 08:19:24
End at: 2019-10-03 08:19:54
Local clock offset: 6.428 ms
Remote clock offset: 0.29 ms

# Below is generated by plot.py at 2019-10-03 10:40:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 412.53 Mbit/s
95th percentile per-packet one-way delay: 19.950 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 412.53 Mbit/s
95th percentile per-packet one-way delay: 19.950 ms
Loss rate: 0.08%
```

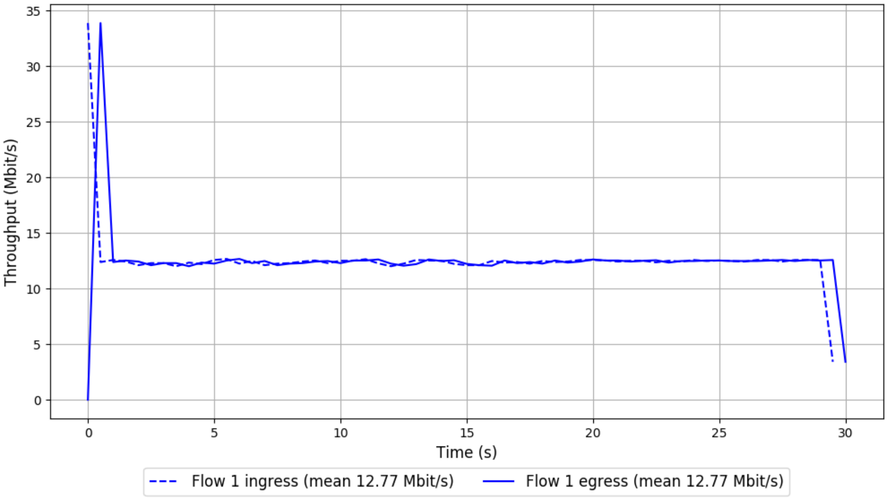
Run 3: Report of Muses_DecisionTree — Data Link

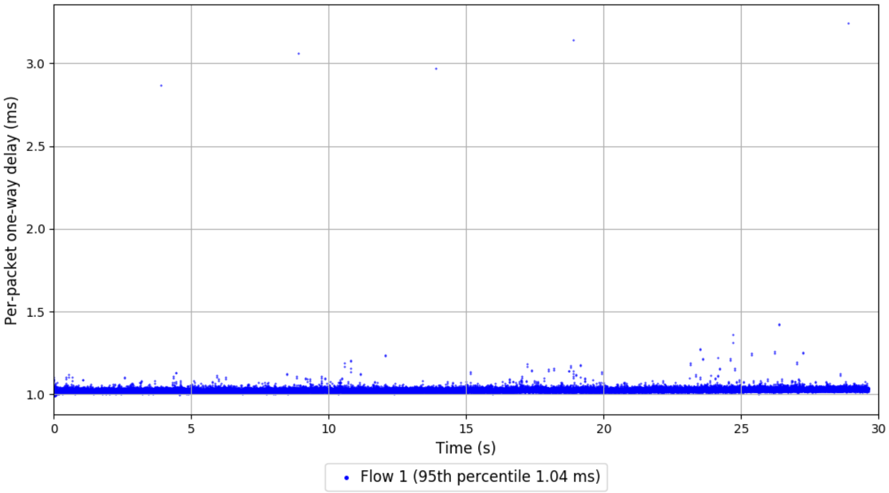




```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 08:53:03
End at: 2019-10-03 08:53:34
Local clock offset: 3.319 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-10-03 10:40:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 1.041 ms
Loss rate: 0.01%
```

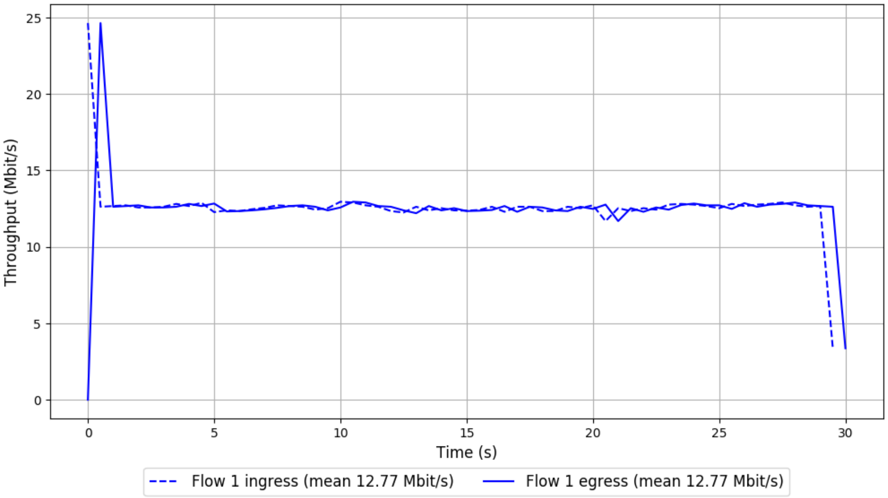
Run 4: Report of Muses_DecisionTree — Data Link

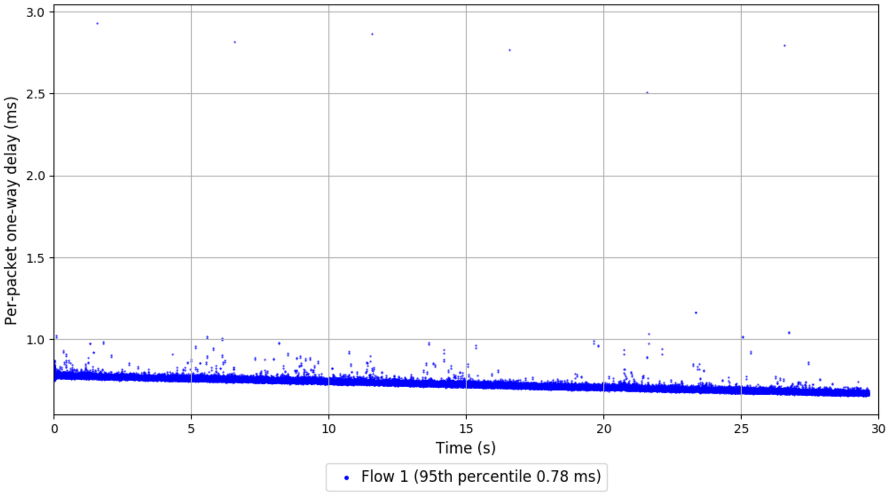




```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-10-03 09:26:59
End at: 2019-10-03 09:27:29
Local clock offset: 2.795 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-10-03 10:40:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 0.776 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 0.776 ms
Loss rate: 0.01%
```

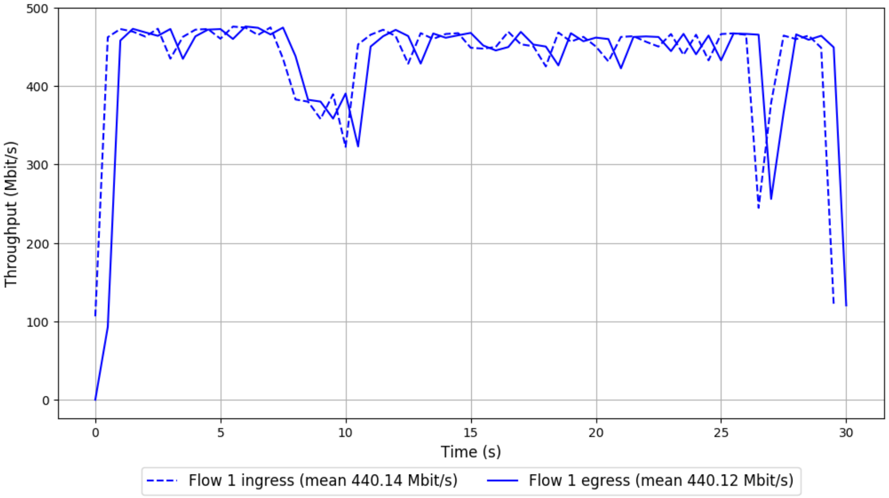
Run 5: Report of Muses_DecisionTree — Data Link

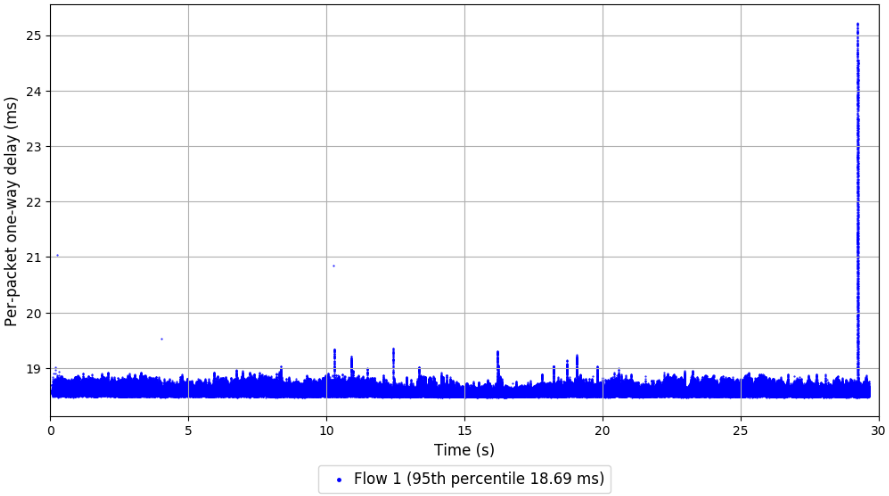




```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 07:01:59
End at: 2019-10-03 07:02:29
Local clock offset: 4.532 ms
Remote clock offset: 0.207 ms

# Below is generated by plot.py at 2019-10-03 10:41:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 440.12 Mbit/s
95th percentile per-packet one-way delay: 18.687 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 440.12 Mbit/s
95th percentile per-packet one-way delay: 18.687 ms
Loss rate: 0.07%
```

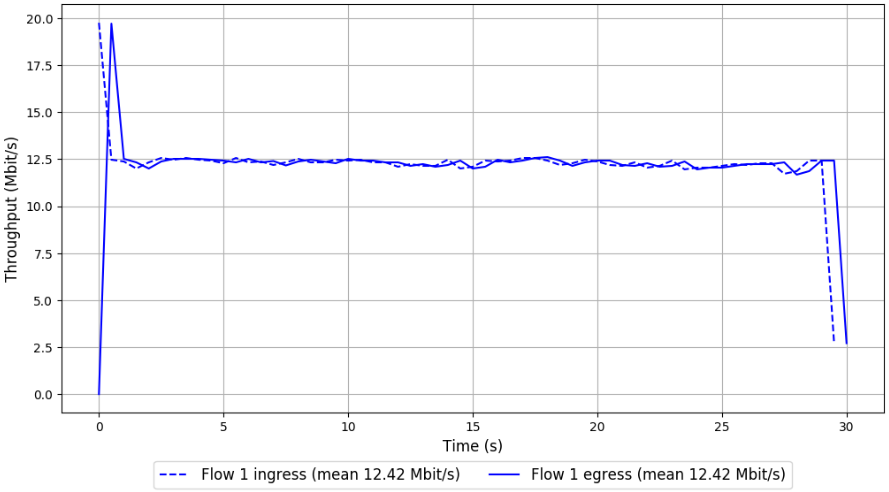
Run 1: Report of Muses_DecisionTreeH0 — Data Link

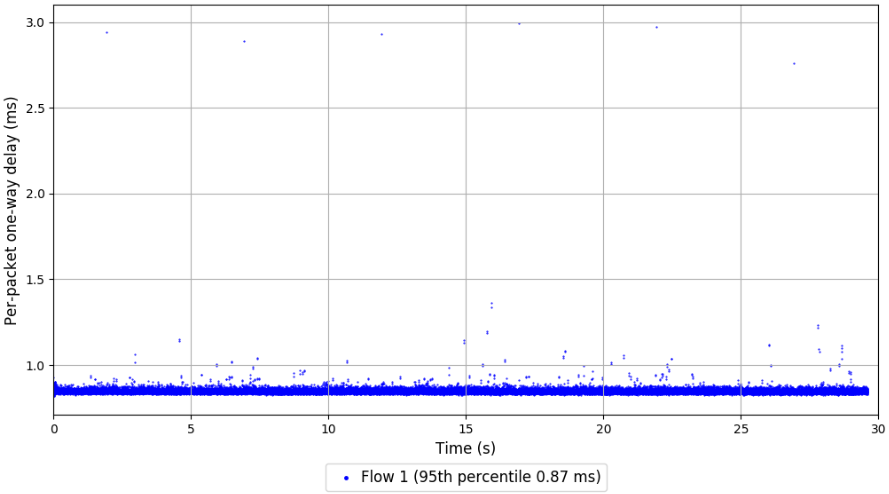




```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 07:36:36
End at: 2019-10-03 07:37:06
Local clock offset: 5.509 ms
Remote clock offset: 0.425 ms

# Below is generated by plot.py at 2019-10-03 10:41:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.01%
```

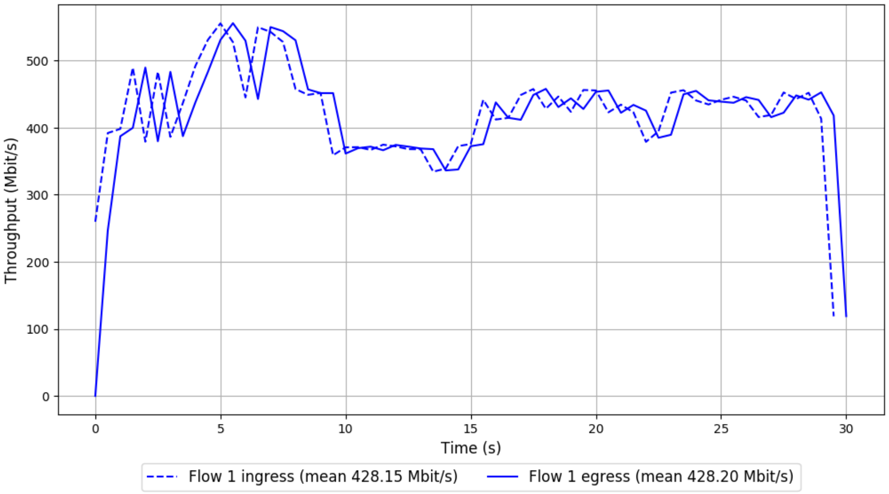
Run 2: Report of Muses_DecisionTreeH0 — Data Link

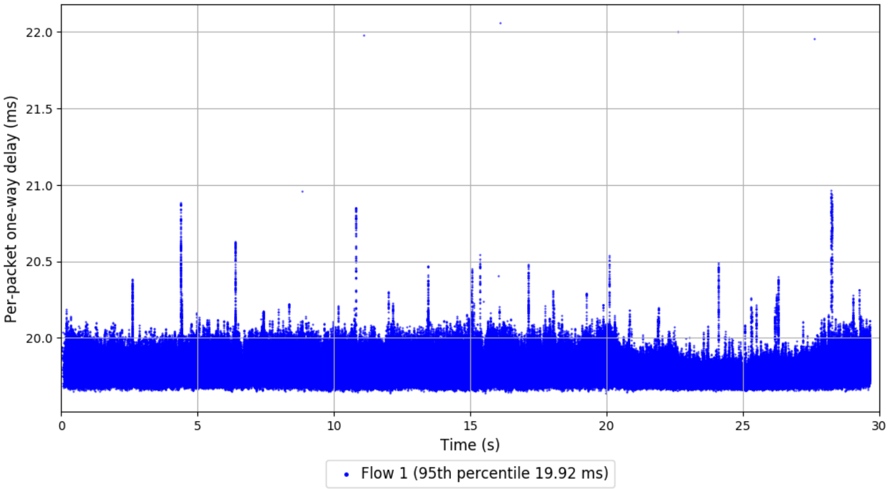




```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 08:11:00
End at: 2019-10-03 08:11:30
Local clock offset: 6.276 ms
Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 428.20 Mbit/s
95th percentile per-packet one-way delay: 19.924 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 428.20 Mbit/s
95th percentile per-packet one-way delay: 19.924 ms
Loss rate: 0.06%
```

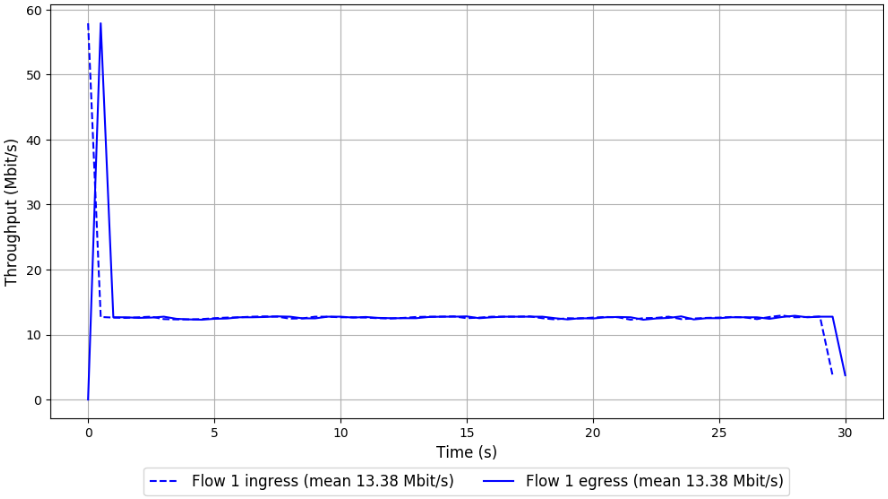
Run 3: Report of Muses_DecisionTreeH0 — Data Link

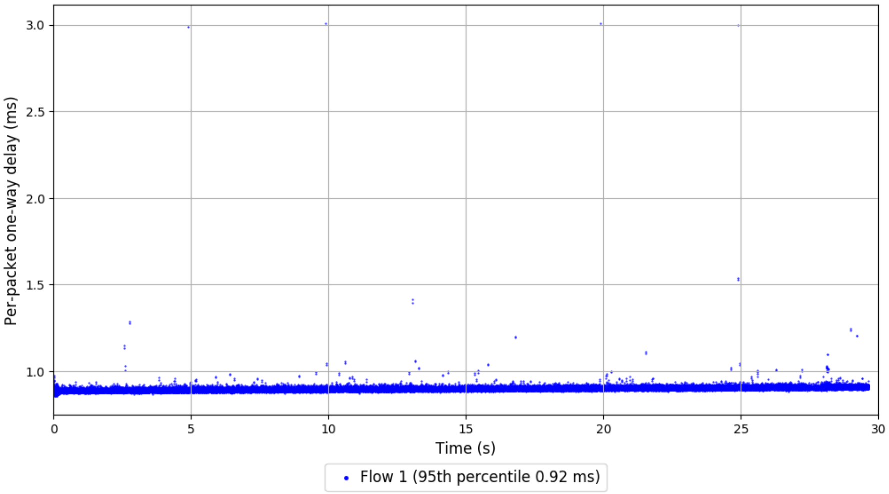




```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 08:45:11
End at: 2019-10-03 08:45:41
Local clock offset: 3.603 ms
Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 0.00%
```

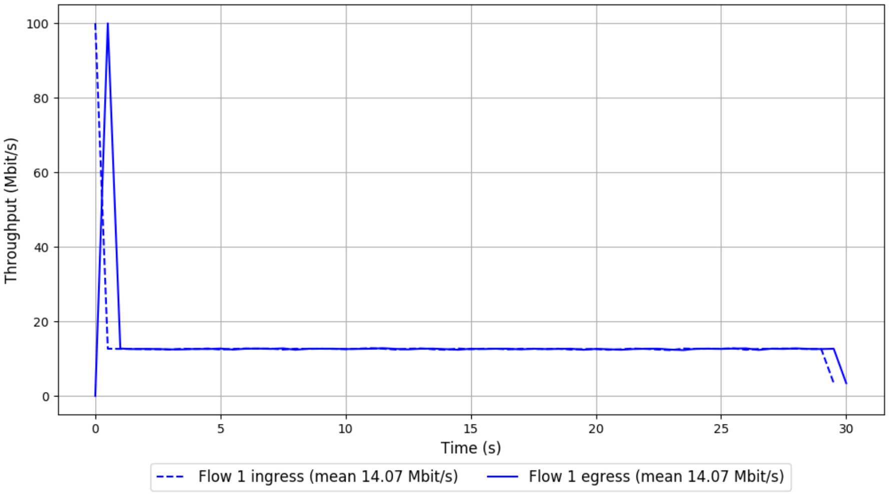
Run 4: Report of Muses_DecisionTreeH0 — Data Link

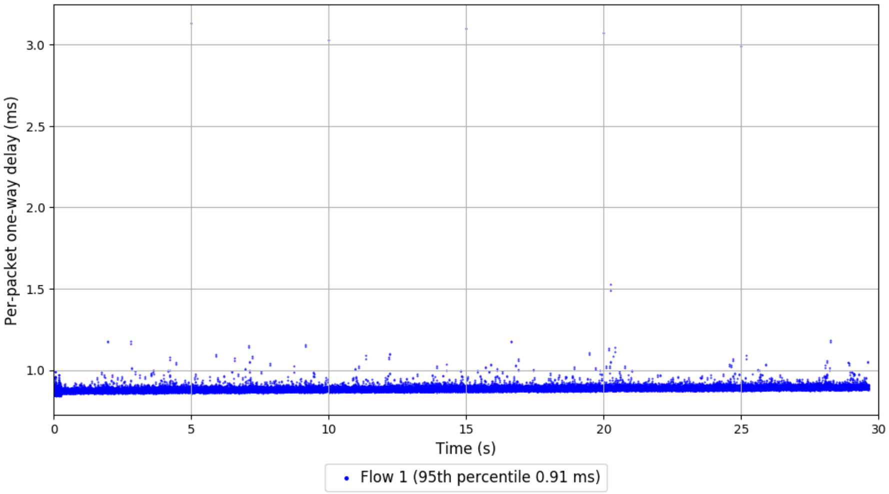




```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-03 09:18:57
End at: 2019-10-03 09:19:27
Local clock offset: 2.441 ms
Remote clock offset: 0.154 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.07 Mbit/s
95th percentile per-packet one-way delay: 0.908 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.07 Mbit/s
95th percentile per-packet one-way delay: 0.908 ms
Loss rate: 0.01%
```

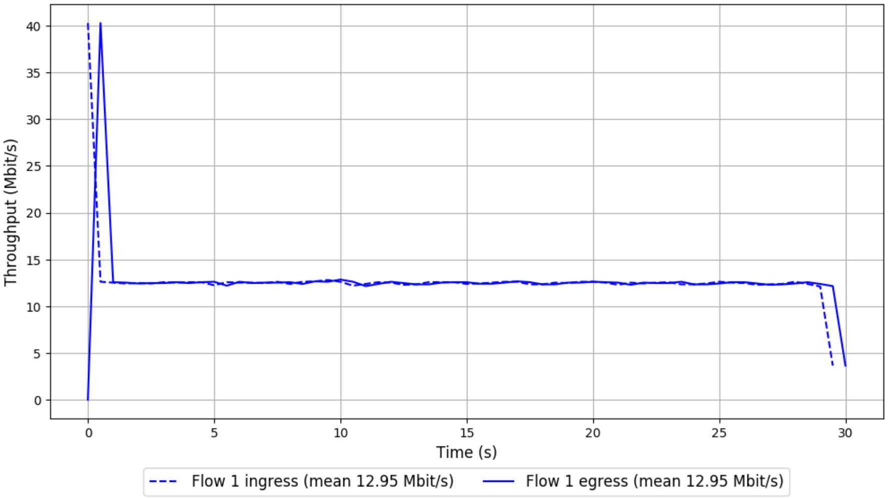
Run 5: Report of Muses_DecisionTreeH0 — Data Link

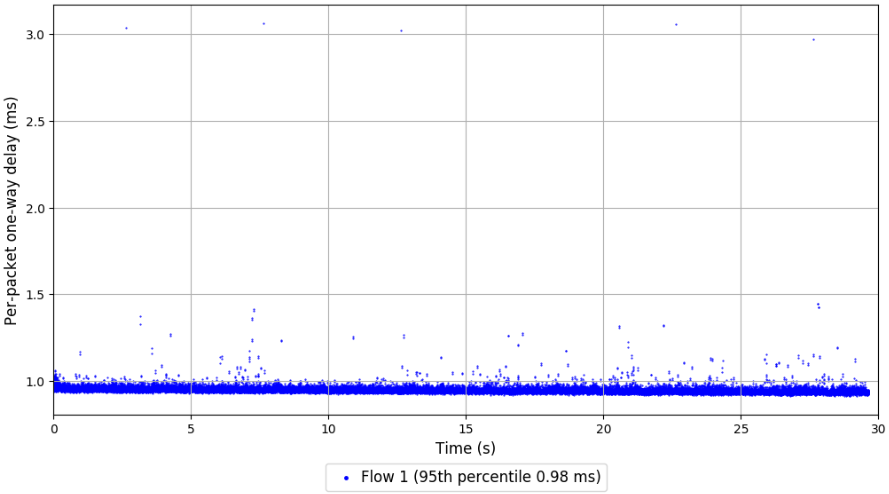




```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 07:26:29
End at: 2019-10-03 07:26:59
Local clock offset: 5.207 ms
Remote clock offset: 0.28 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 0.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 0.978 ms
Loss rate: 0.00%
```

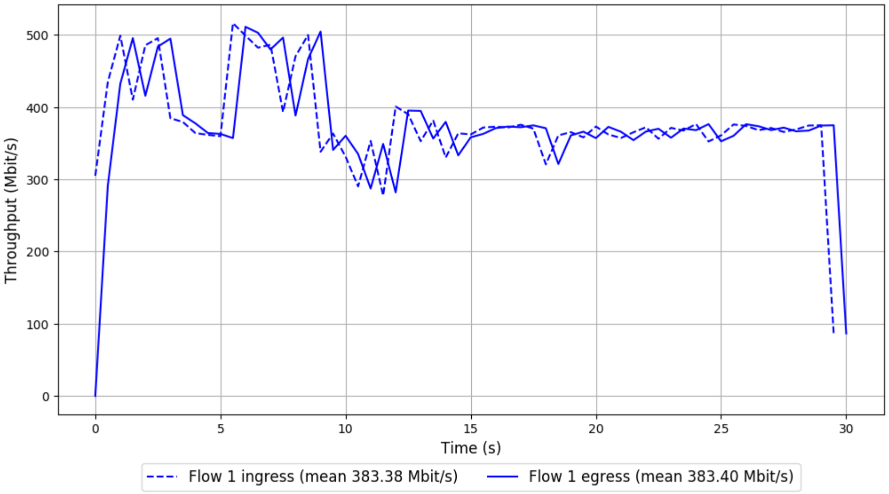
Run 1: Report of Muses_DecisionTreeR0 — Data Link

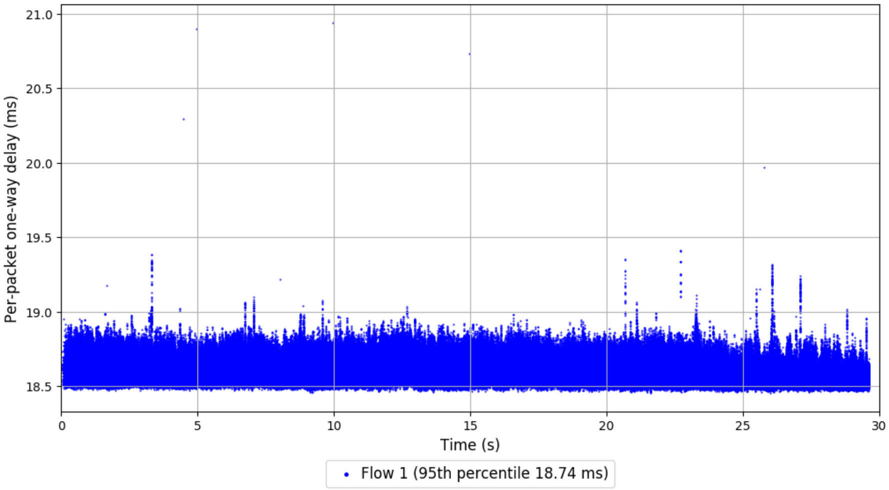




```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 08:00:28
End at: 2019-10-03 08:00:58
Local clock offset: 6.068 ms
Remote clock offset: 0.295 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 383.40 Mbit/s
95th percentile per-packet one-way delay: 18.739 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 383.40 Mbit/s
95th percentile per-packet one-way delay: 18.739 ms
Loss rate: 0.06%
```

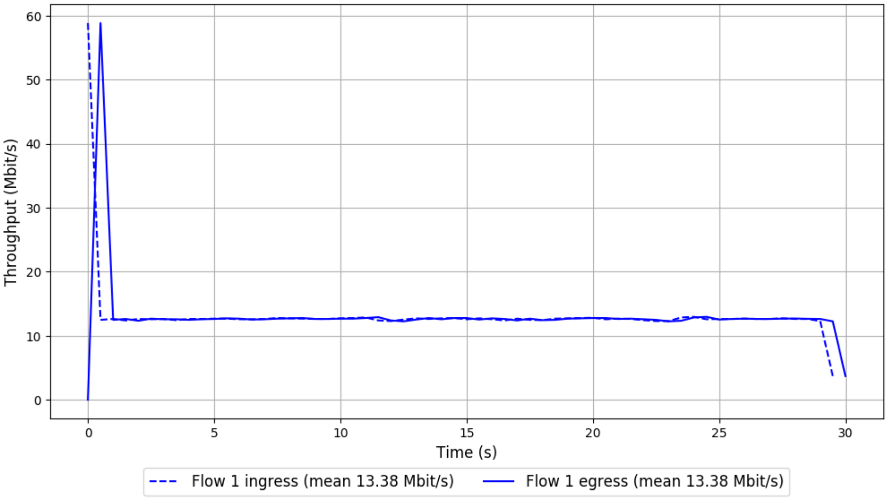
Run 2: Report of Muses_DecisionTreeR0 — Data Link

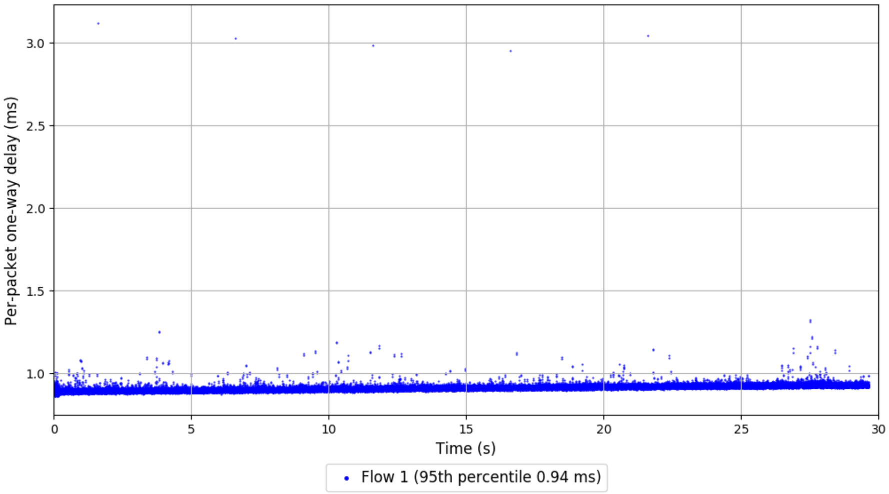




```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 08:34:58
End at: 2019-10-03 08:35:28
Local clock offset: 4.443 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 0.940 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 0.940 ms
Loss rate: 0.01%
```

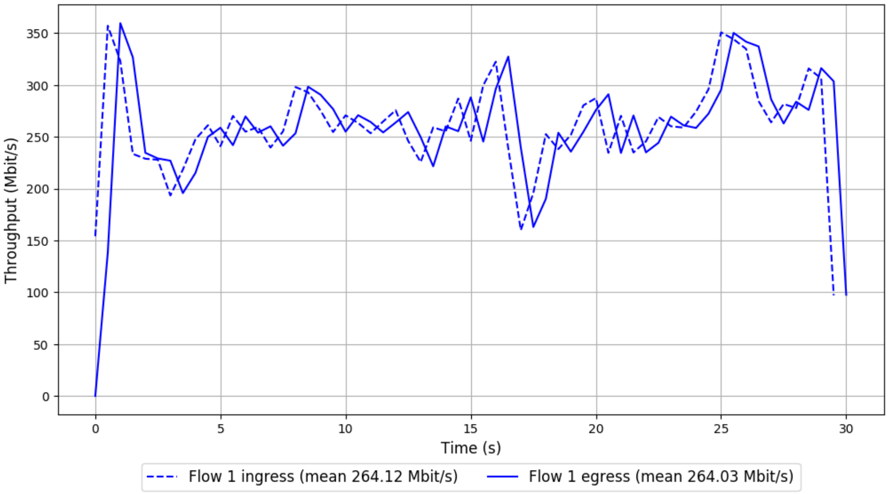
Run 3: Report of Muses_DecisionTreeR0 — Data Link

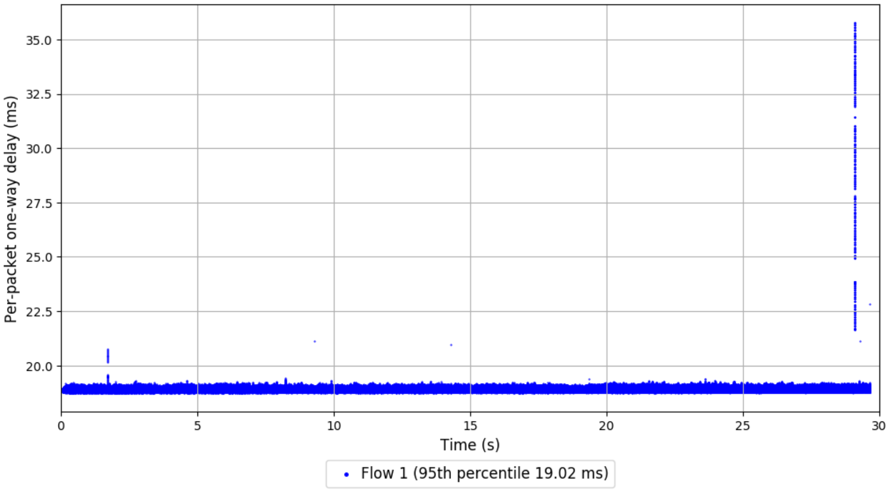




```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 09:08:45
End at: 2019-10-03 09:09:15
Local clock offset: 2.783 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 264.03 Mbit/s
95th percentile per-packet one-way delay: 19.016 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 264.03 Mbit/s
95th percentile per-packet one-way delay: 19.016 ms
Loss rate: 0.09%
```

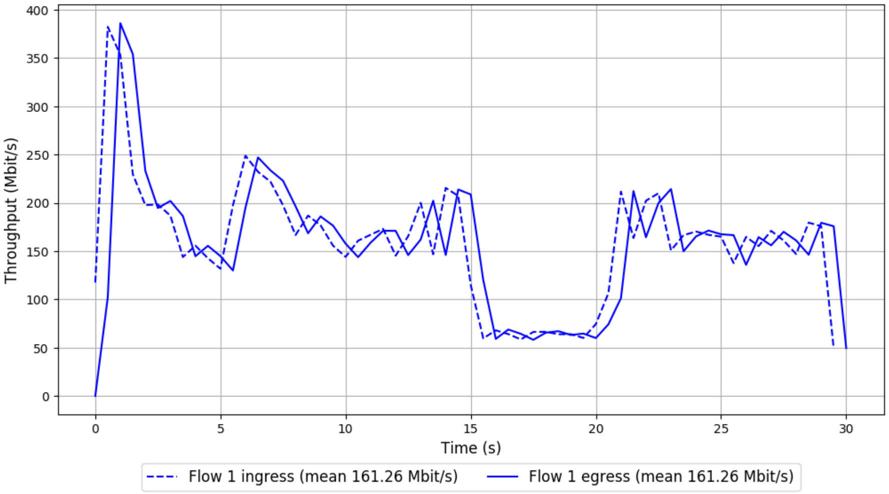
Run 4: Report of Muses_DecisionTreeR0 — Data Link

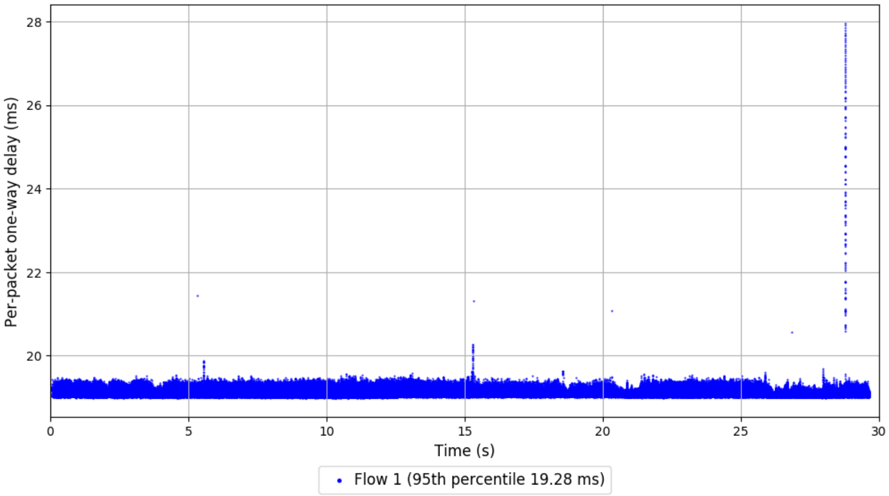




```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-03 09:42:16
End at: 2019-10-03 09:42:47
Local clock offset: 4.552 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2019-10-03 10:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 161.26 Mbit/s
95th percentile per-packet one-way delay: 19.282 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 161.26 Mbit/s
95th percentile per-packet one-way delay: 19.282 ms
Loss rate: 0.07%
```

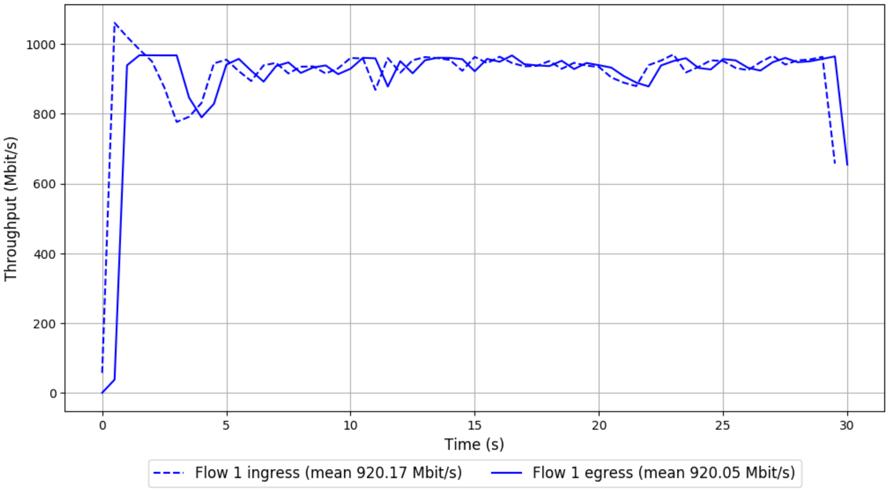
Run 5: Report of Muses_DecisionTreeR0 — Data Link

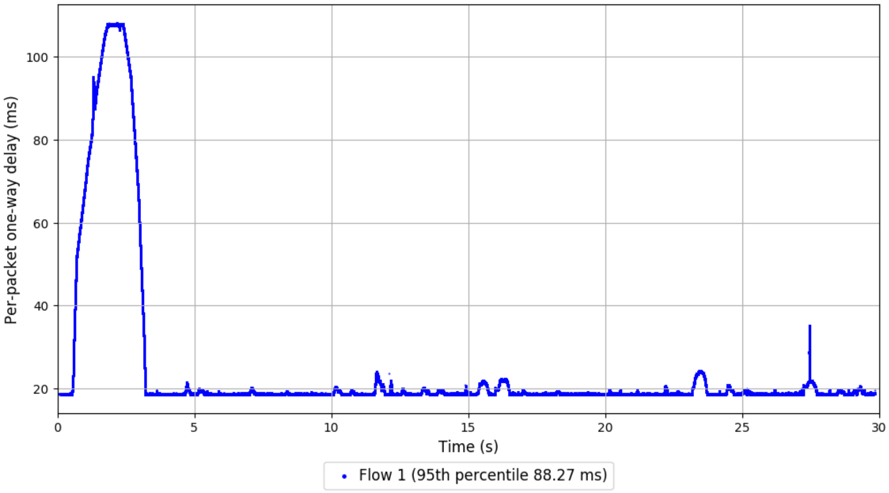




```
Run 1: Statistics of PCC-Allegro

Start at: 2019-10-03 07:28:58
End at: 2019-10-03 07:29:28
Local clock offset: 5.291 ms
Remote clock offset: 0.352 ms

# Below is generated by plot.py at 2019-10-03 10:49:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 920.05 Mbit/s
95th percentile per-packet one-way delay: 88.267 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 920.05 Mbit/s
95th percentile per-packet one-way delay: 88.267 ms
Loss rate: 0.08%
```

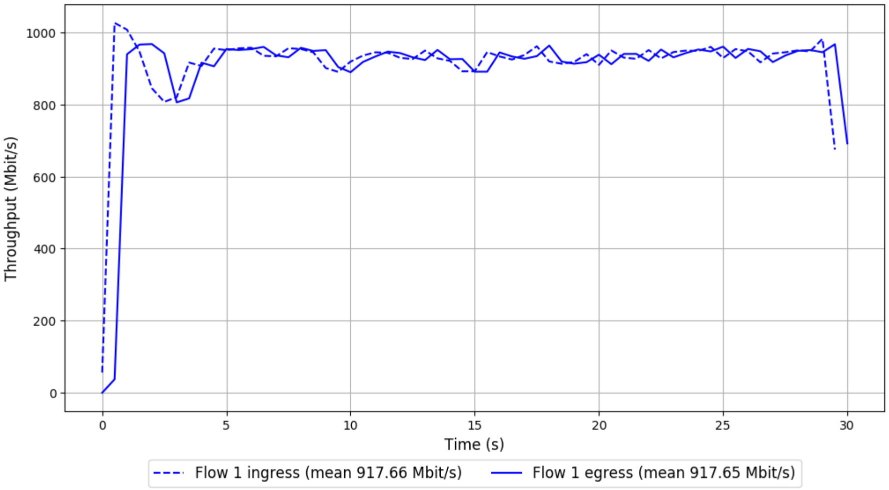
Run 1: Report of PCC-Allegro — Data Link

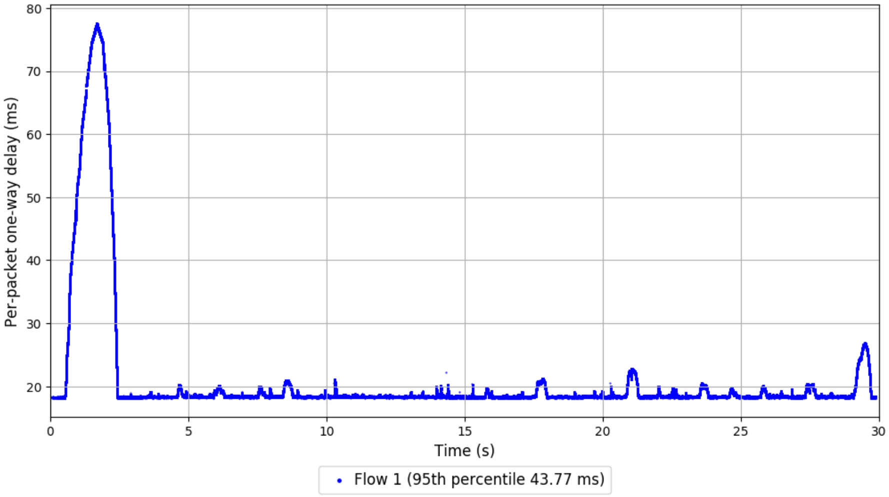




```
Run 2: Statistics of PCC-Allegro

Start at: 2019-10-03 08:03:25
End at: 2019-10-03 08:03:55
Local clock offset: 6.141 ms
Remote clock offset: 0.185 ms

# Below is generated by plot.py at 2019-10-03 10:49:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 917.65 Mbit/s
95th percentile per-packet one-way delay: 43.765 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 917.65 Mbit/s
95th percentile per-packet one-way delay: 43.765 ms
Loss rate: 0.07%
```

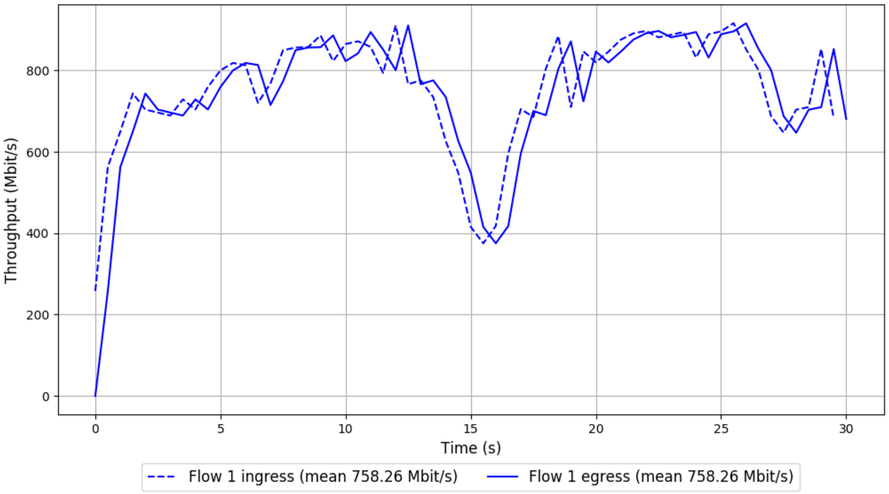
Run 2: Report of PCC-Allegro — Data Link

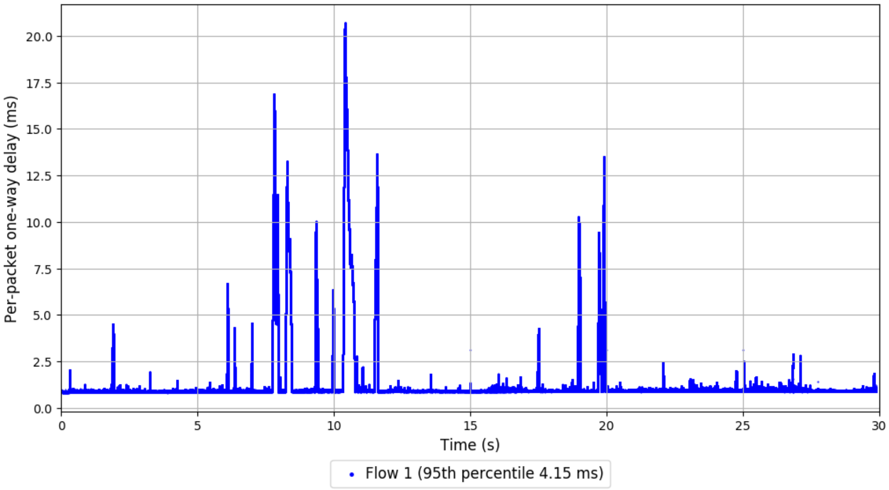




```
Run 3: Statistics of PCC-Allegro

Start at: 2019-10-03 08:37:43
End at: 2019-10-03 08:38:13
Local clock offset: 4.171 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2019-10-03 10:49:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 758.26 Mbit/s
95th percentile per-packet one-way delay: 4.149 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 758.26 Mbit/s
95th percentile per-packet one-way delay: 4.149 ms
Loss rate: 0.01%
```

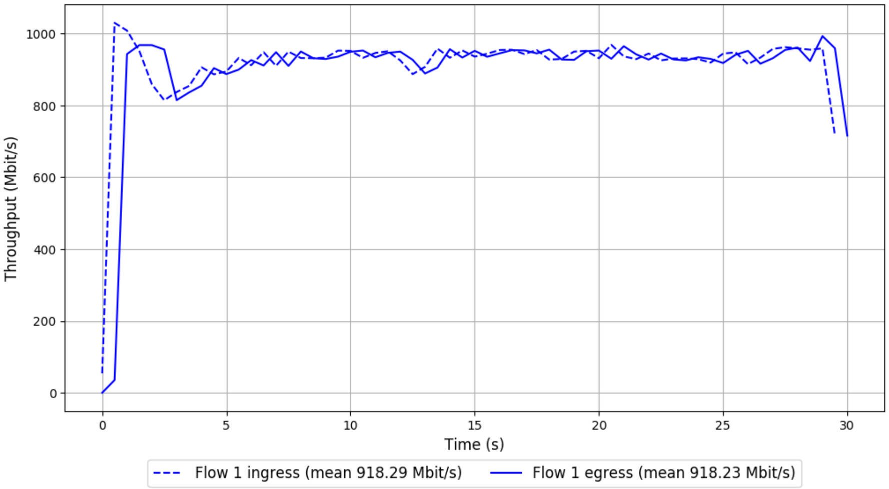
Run 3: Report of PCC-Allegro — Data Link

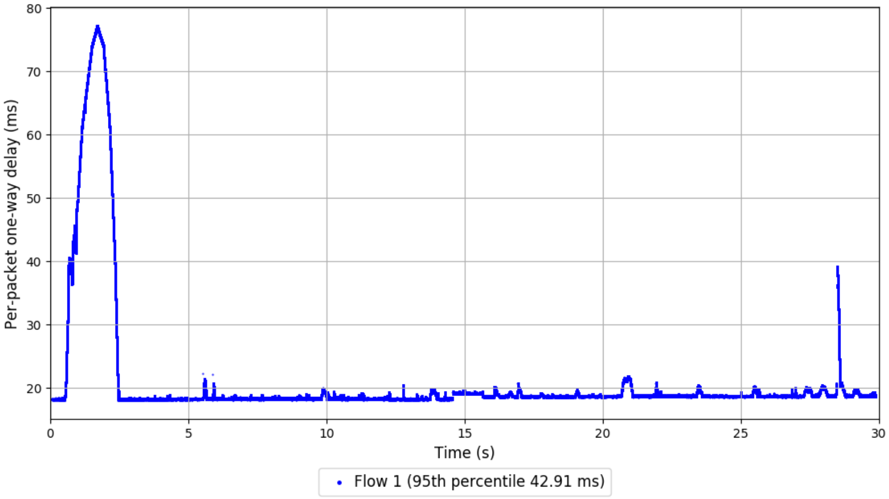




```
Run 4: Statistics of PCC-Allegro

Start at: 2019-10-03 09:11:34
End at: 2019-10-03 09:12:04
Local clock offset: 2.659 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2019-10-03 10:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 918.23 Mbit/s
95th percentile per-packet one-way delay: 42.906 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 918.23 Mbit/s
95th percentile per-packet one-way delay: 42.906 ms
Loss rate: 0.07%
```

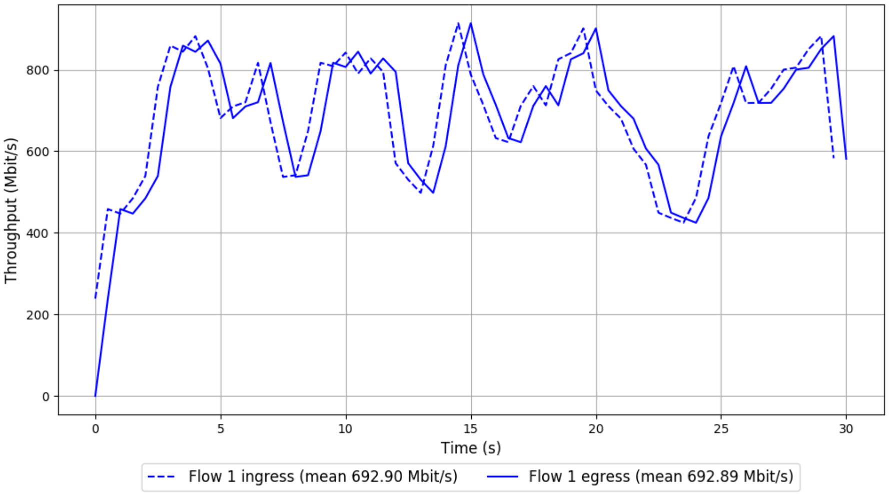
Run 4: Report of PCC-Allegro — Data Link

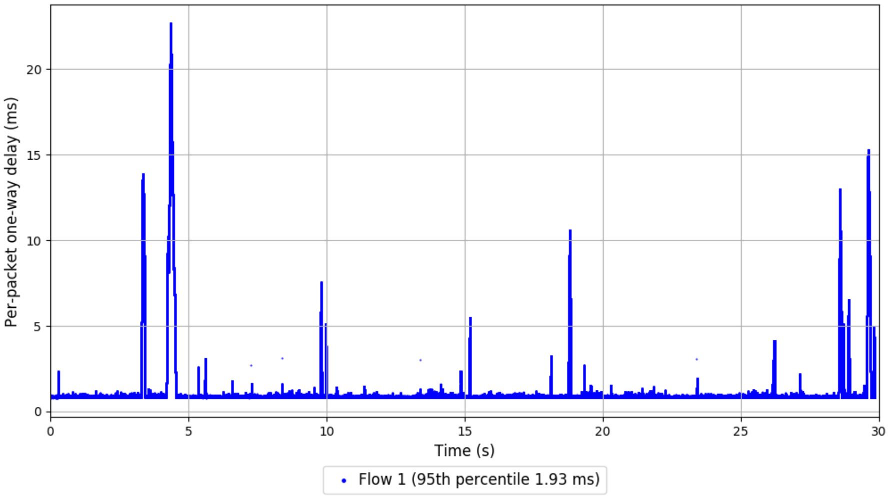




```
Run 5: Statistics of PCC-Allegro

Start at: 2019-10-03 09:45:04
End at: 2019-10-03 09:45:34
Local clock offset: 4.693 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2019-10-03 10:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 692.89 Mbit/s
95th percentile per-packet one-way delay: 1.934 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 692.89 Mbit/s
95th percentile per-packet one-way delay: 1.934 ms
Loss rate: 0.01%
```

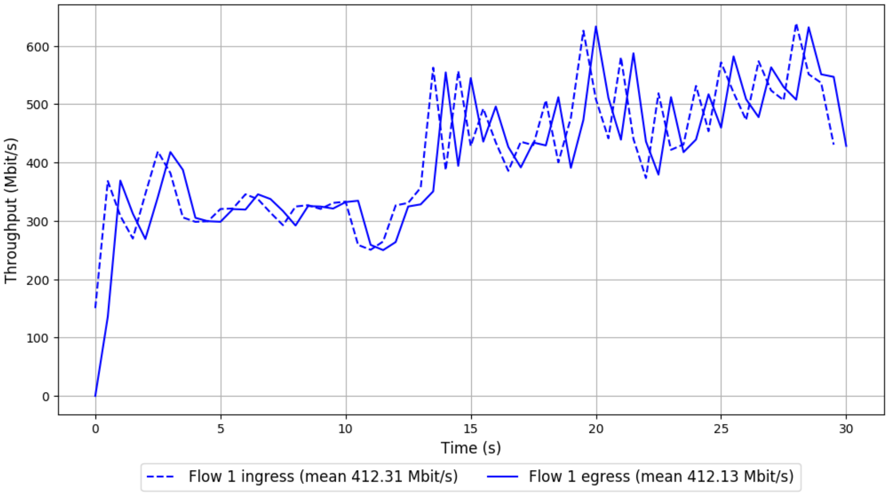
Run 5: Report of PCC-Allegro — Data Link

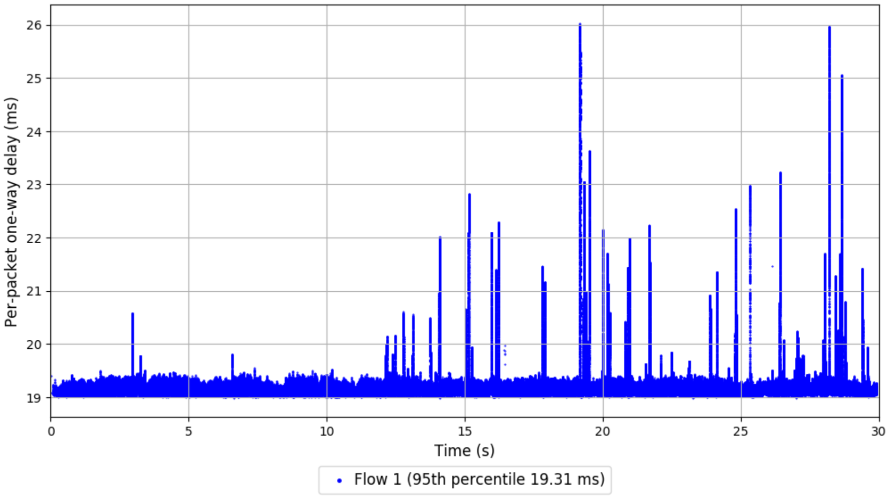




```
Run 1: Statistics of PCC-Expr

Start at: 2019-10-03 07:07:25
End at: 2019-10-03 07:07:55
Local clock offset: 4.728 ms
Remote clock offset: 0.258 ms

# Below is generated by plot.py at 2019-10-03 10:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 412.13 Mbit/s
95th percentile per-packet one-way delay: 19.311 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 412.13 Mbit/s
95th percentile per-packet one-way delay: 19.311 ms
Loss rate: 0.11%
```

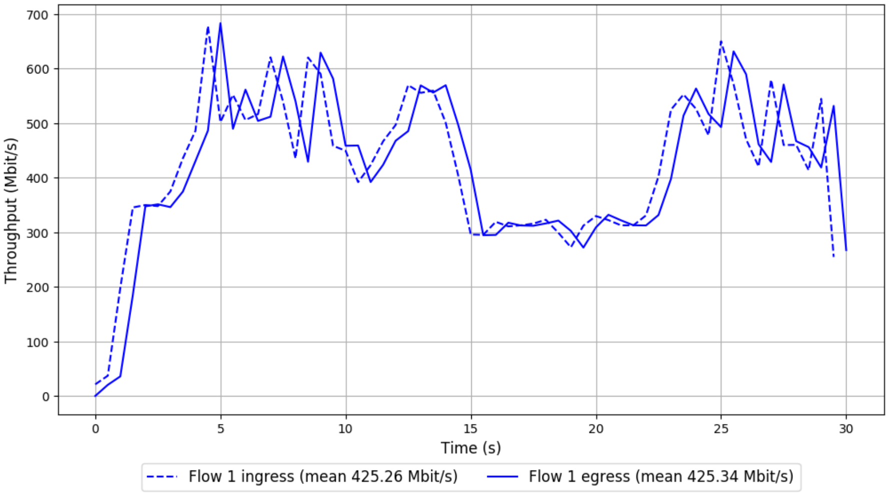
Run 1: Report of PCC-Expr — Data Link

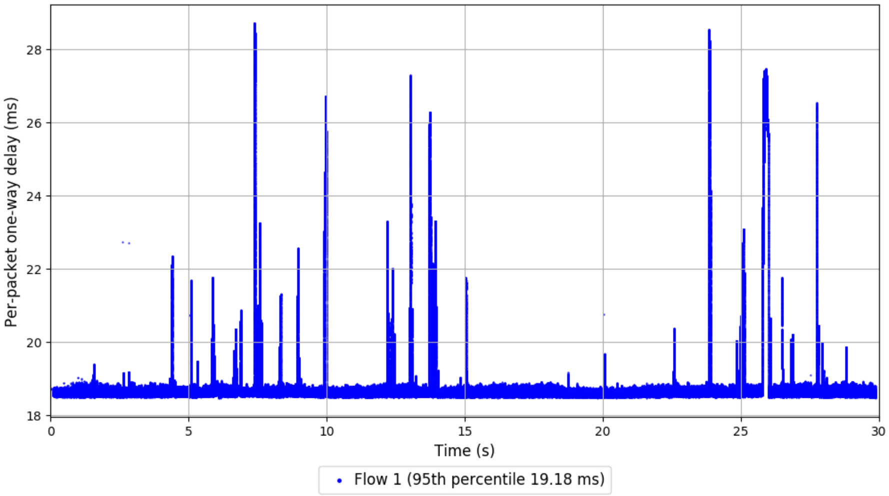




```
Run 2: Statistics of PCC-Expr

Start at: 2019-10-03 07:41:36
End at: 2019-10-03 07:42:06
Local clock offset: 5.619 ms
Remote clock offset: 0.404 ms

# Below is generated by plot.py at 2019-10-03 10:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 425.34 Mbit/s
95th percentile per-packet one-way delay: 19.180 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 425.34 Mbit/s
95th percentile per-packet one-way delay: 19.180 ms
Loss rate: 0.05%
```

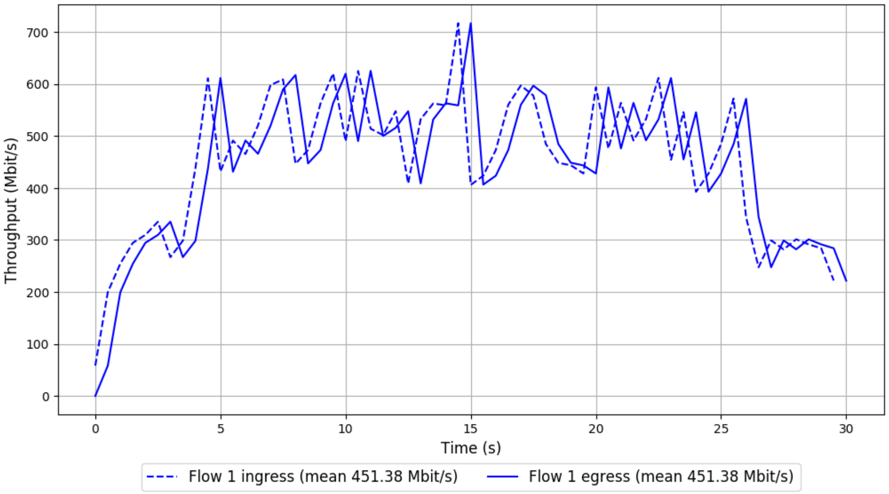
Run 2: Report of PCC-Expr — Data Link

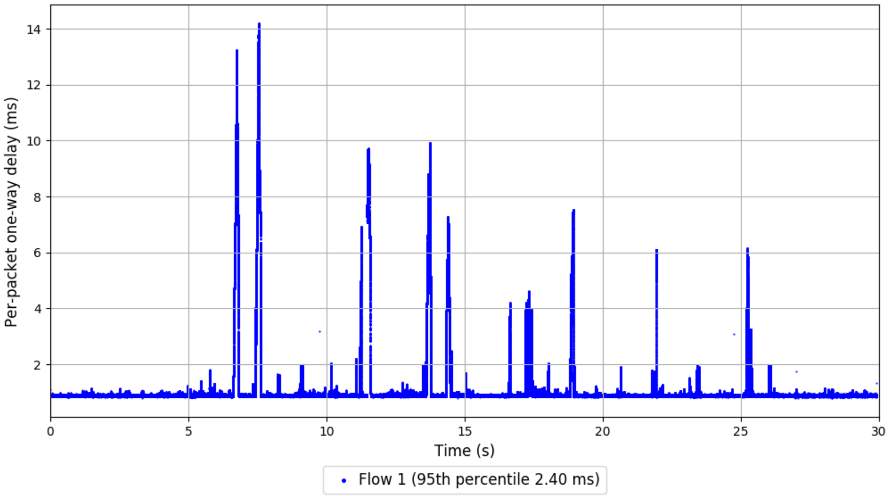




```
Run 3: Statistics of PCC-Expr

Start at: 2019-10-03 08:16:15
End at: 2019-10-03 08:16:45
Local clock offset: 6.363 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 451.38 Mbit/s
95th percentile per-packet one-way delay: 2.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 451.38 Mbit/s
95th percentile per-packet one-way delay: 2.401 ms
Loss rate: 0.00%
```

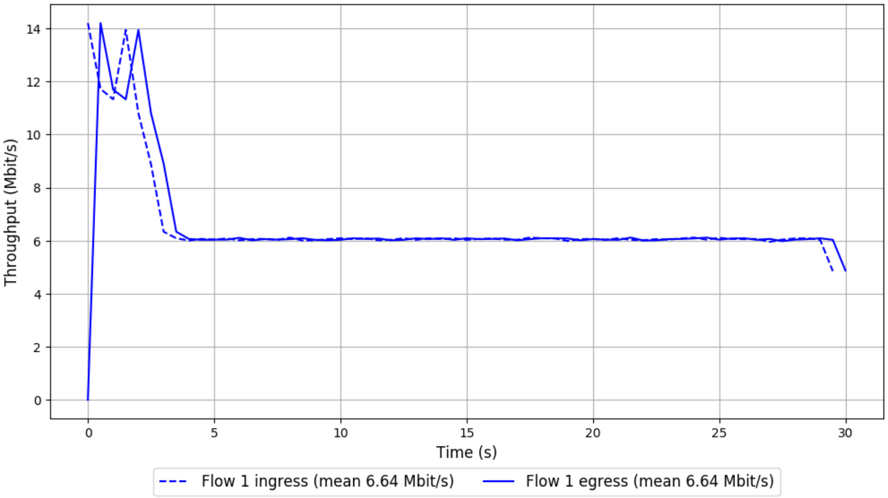
Run 3: Report of PCC-Expr — Data Link

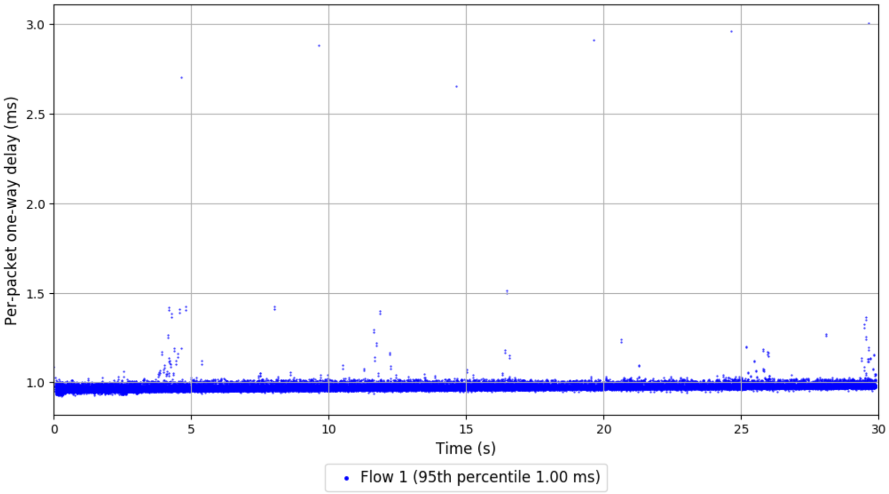




```
Run 4: Statistics of PCC-Expr

Start at: 2019-10-03 08:50:11
End at: 2019-10-03 08:50:41
Local clock offset: 3.389 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 1.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 1.002 ms
Loss rate: 0.00%
```

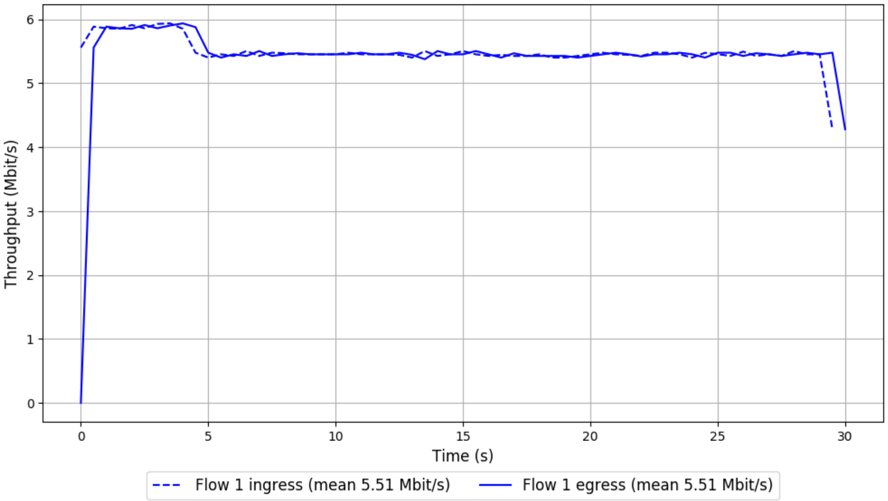
Run 4: Report of PCC-Expr — Data Link

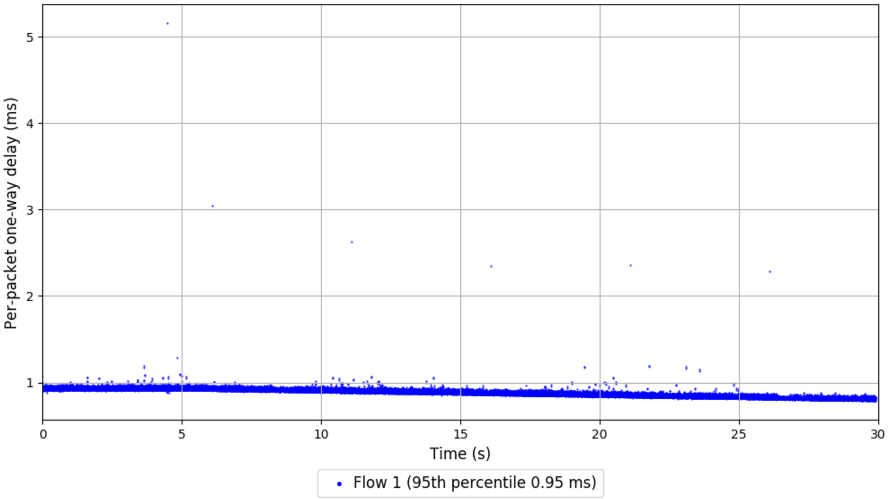




```
Run 5: Statistics of PCC-Expr

Start at: 2019-10-03 09:24:07
End at: 2019-10-03 09:24:37
Local clock offset: 2.279 ms
Remote clock offset: 0.109 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 0.948 ms
Loss rate: 0.00%
```

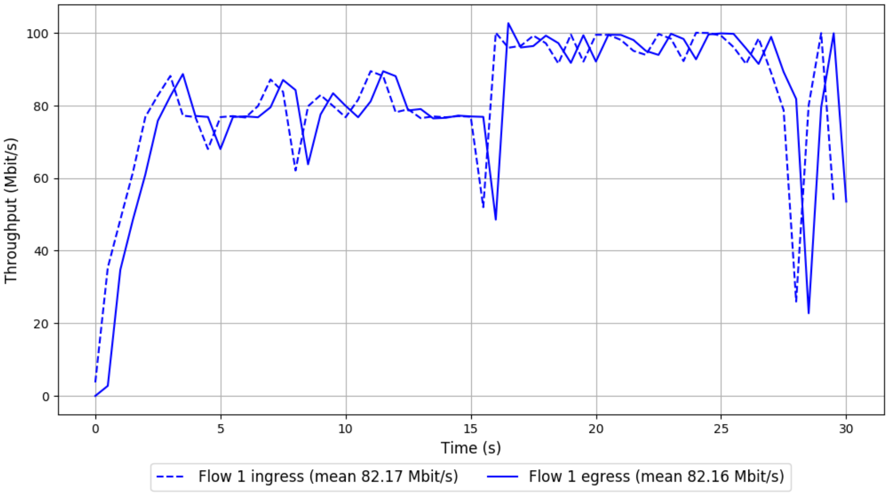
Run 5: Report of PCC-Expr — Data Link

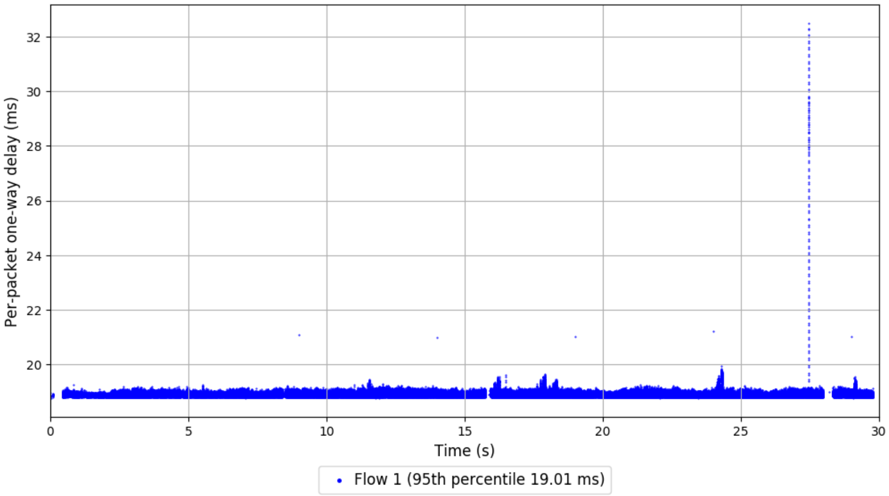




```
Run 1: Statistics of QUIC Cubic

Start at: 2019-10-03 07:06:09
End at: 2019-10-03 07:06:39
Local clock offset: 4.678 ms
Remote clock offset: 0.234 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.16 Mbit/s
95th percentile per-packet one-way delay: 19.011 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 82.16 Mbit/s
95th percentile per-packet one-way delay: 19.011 ms
Loss rate: 0.08%
```

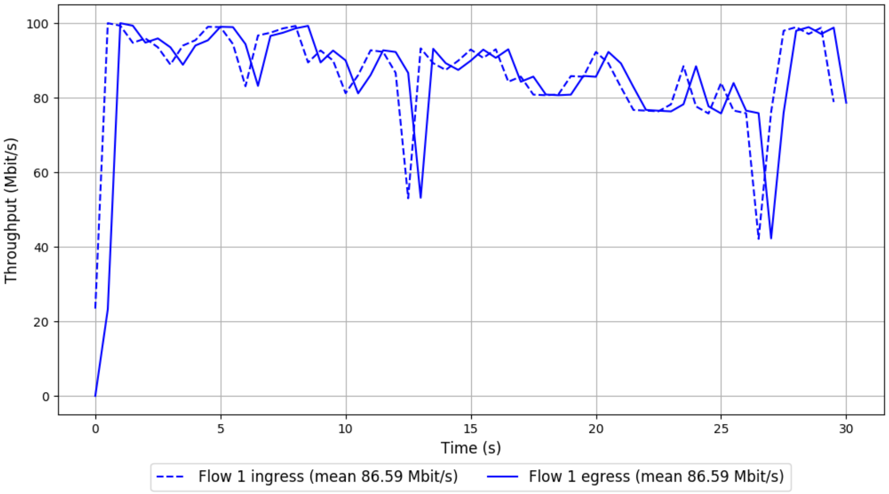
Run 1: Report of QUIC Cubic — Data Link

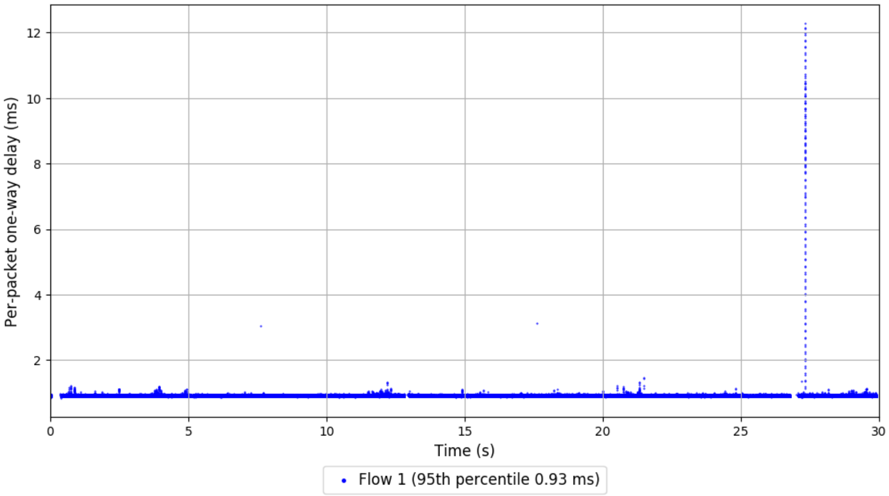




```
Run 2: Statistics of QUIC Cubic

Start at: 2019-10-03 07:40:20
End at: 2019-10-03 07:40:50
Local clock offset: 5.635 ms
Remote clock offset: 0.437 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 0.934 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 0.934 ms
Loss rate: 0.01%
```

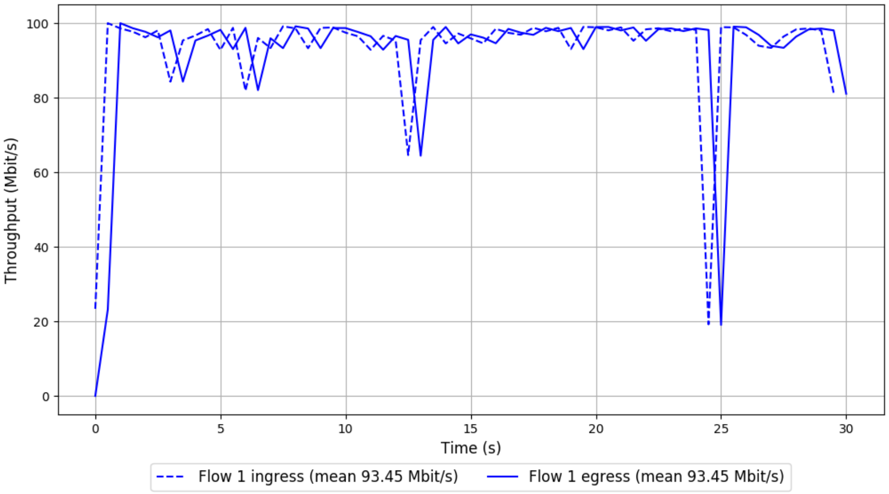
Run 2: Report of QUIC Cubic — Data Link

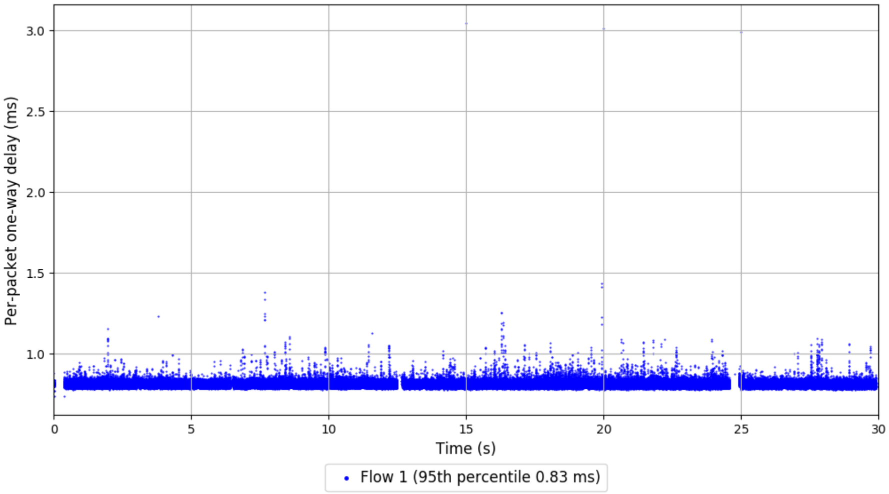




```
Run 3: Statistics of QUIC Cubic

Start at: 2019-10-03 08:14:58
End at: 2019-10-03 08:15:28
Local clock offset: 6.355 ms
Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 0.835 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 0.835 ms
Loss rate: 0.01%
```

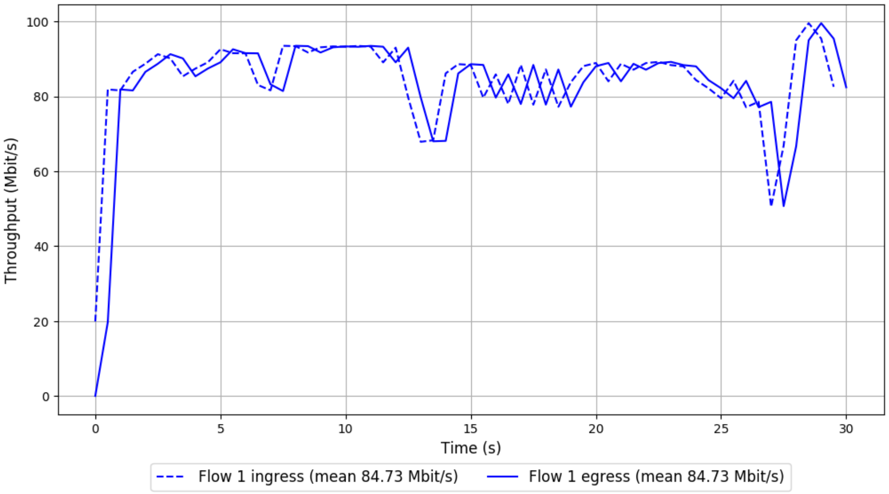
Run 3: Report of QUIC Cubic — Data Link

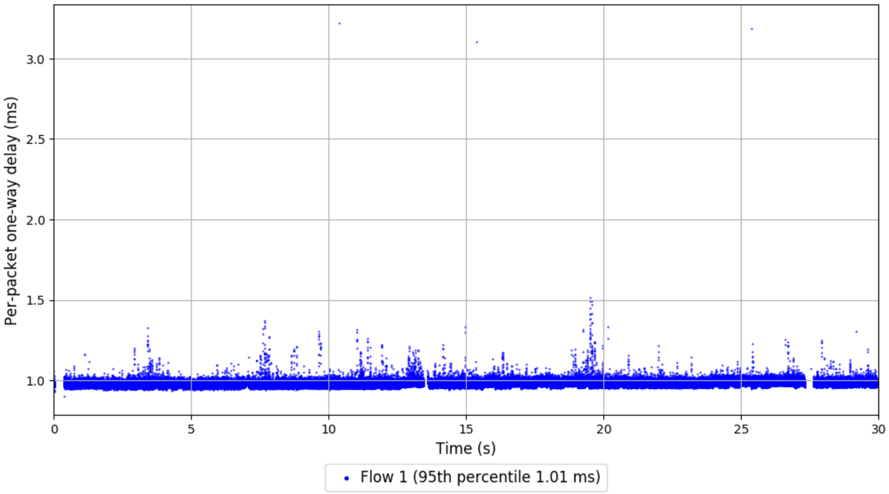




```
Run 4: Statistics of QUIC Cubic

Start at: 2019-10-03 08:48:55
End at: 2019-10-03 08:49:25
Local clock offset: 3.451 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.73 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 84.73 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.01%
```

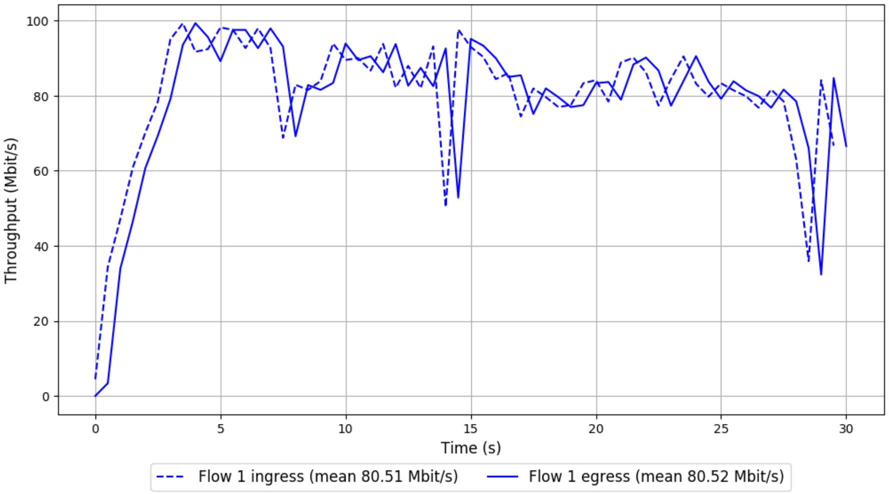
Run 4: Report of QUIC Cubic — Data Link

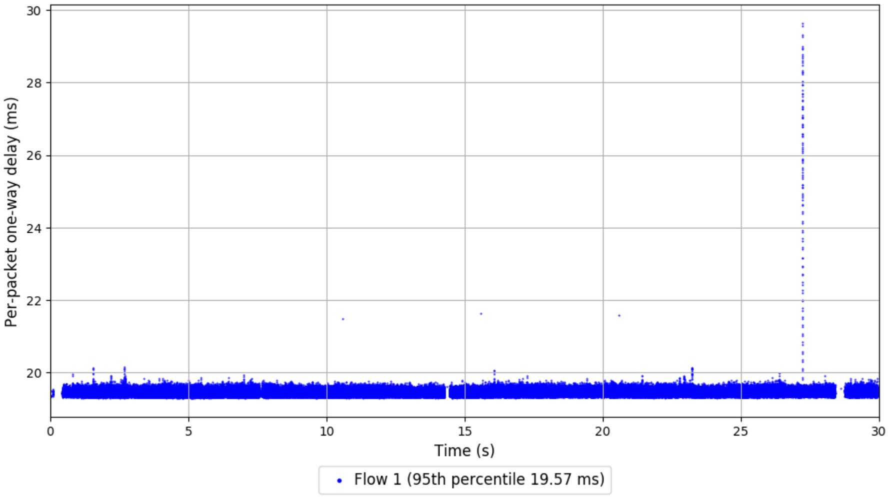




```
Run 5: Statistics of QUIC Cubic

Start at: 2019-10-03 09:22:50
End at: 2019-10-03 09:23:20
Local clock offset: 2.322 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 19.571 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 19.571 ms
Loss rate: 0.06%
```

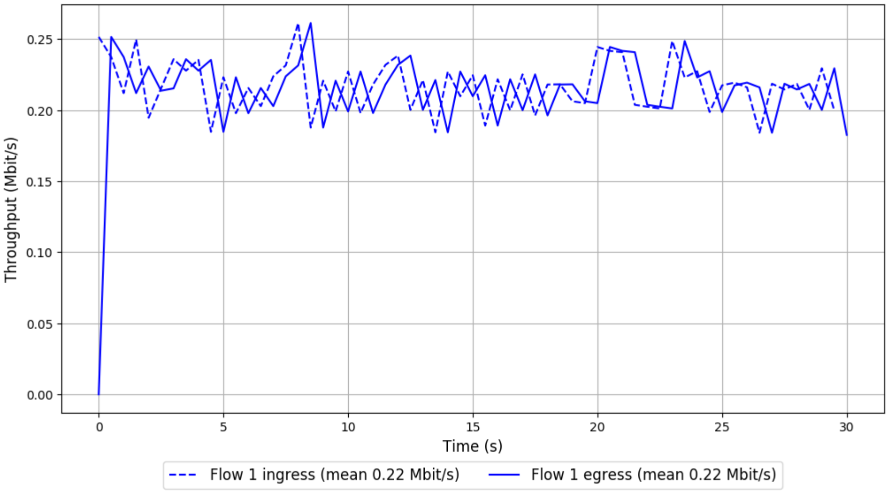
Run 5: Report of QUIC Cubic — Data Link

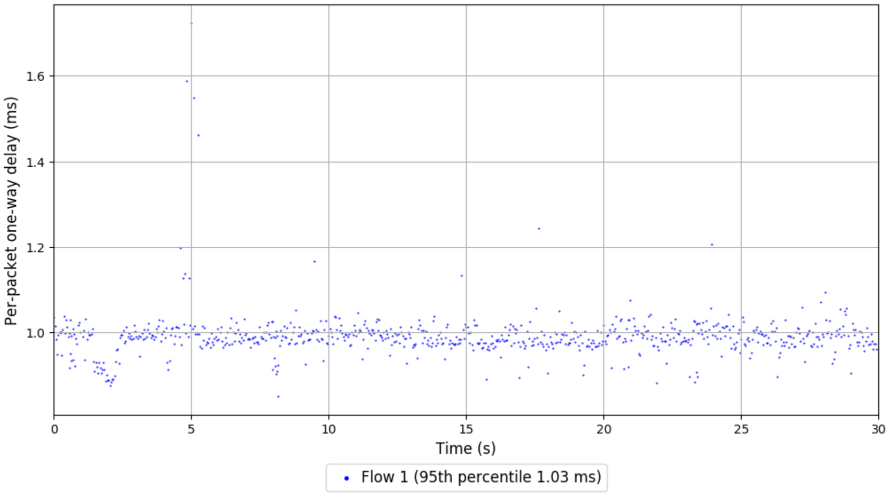




```
Run 1: Statistics of SCReAM

Start at: 2019-10-03 07:23:38
End at: 2019-10-03 07:24:08
Local clock offset: 5.092 ms
Remote clock offset: 0.352 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.13%
```

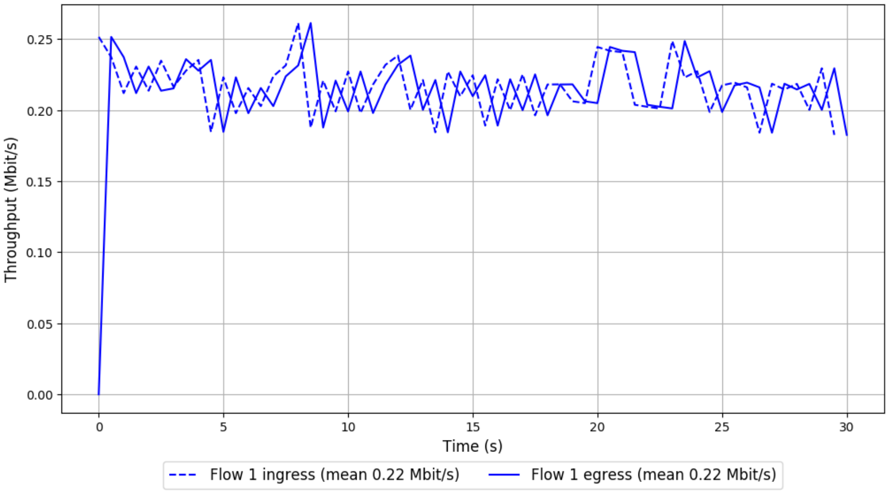
Run 1: Report of SCReAM — Data Link

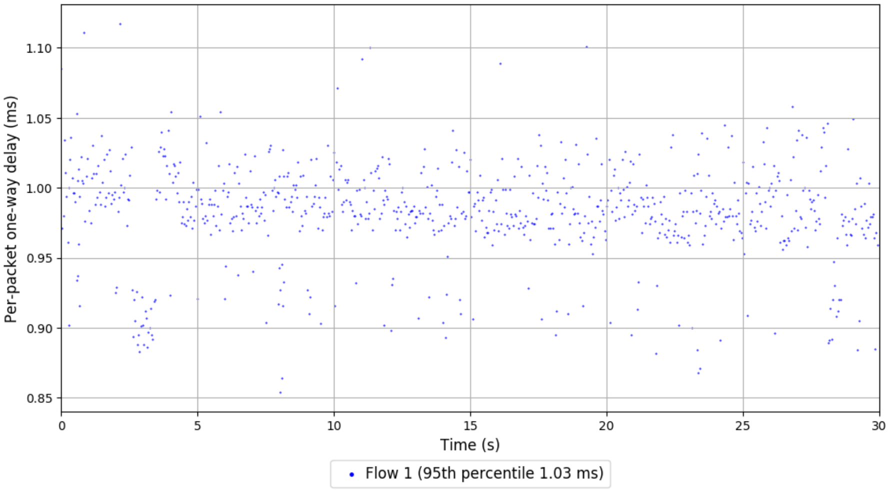




```
Run 2: Statistics of SCReAM

Start at: 2019-10-03 07:57:36
End at: 2019-10-03 07:58:06
Local clock offset: 6.012 ms
Remote clock offset: 0.347 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.00%
```

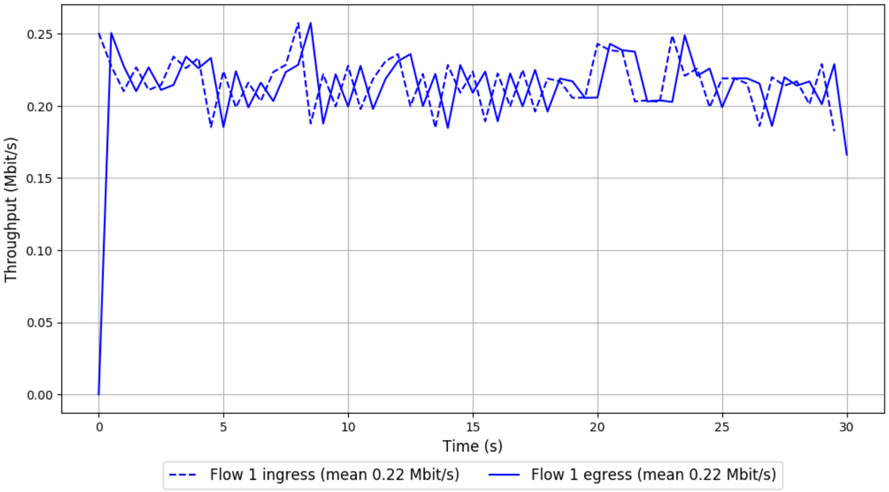
Run 2: Report of SCReAM — Data Link

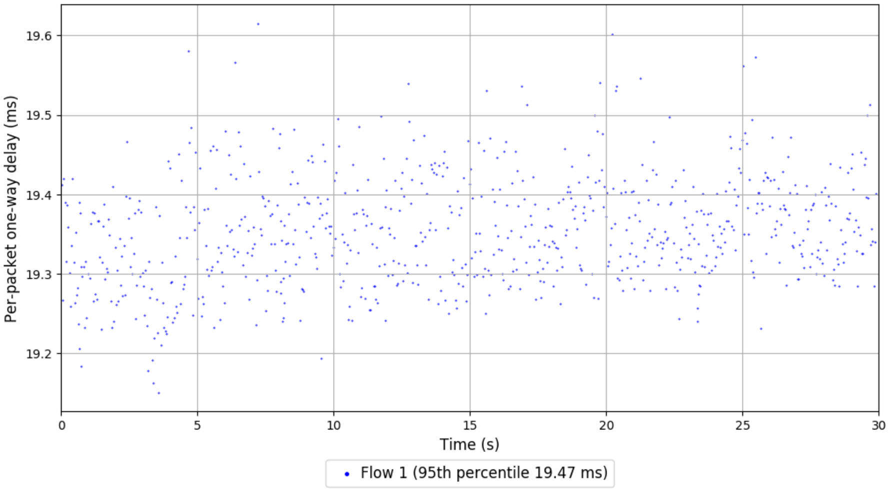




```
Run 3: Statistics of SCReAM

Start at: 2019-10-03 08:32:06
End at: 2019-10-03 08:32:36
Local clock offset: 4.828 ms
Remote clock offset: 0.087 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.468 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.468 ms
Loss rate: 0.13%
```

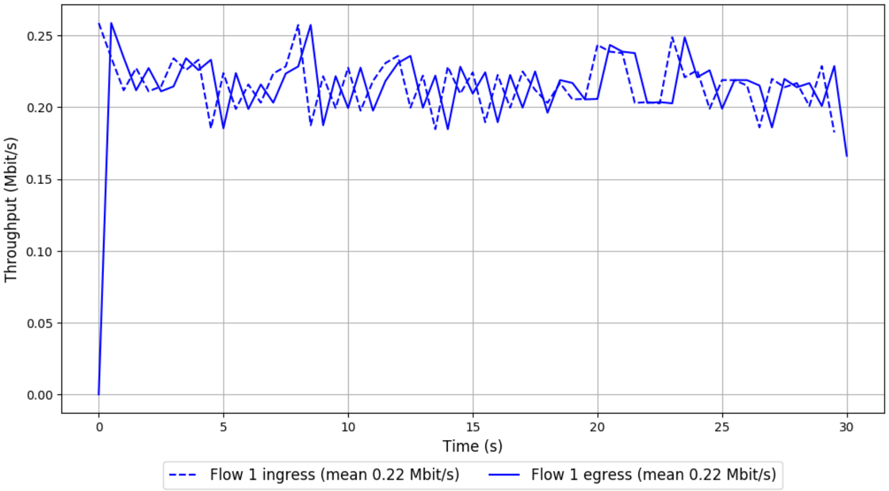
Run 3: Report of SCReAM — Data Link

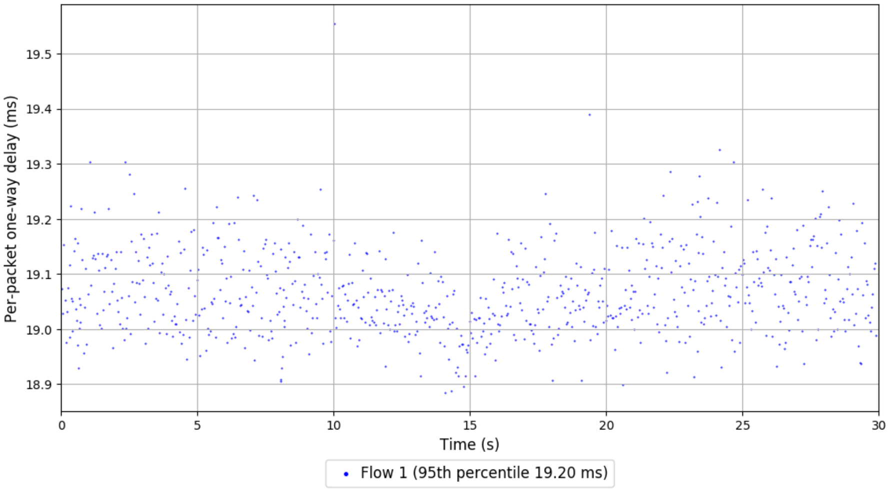




```
Run 4: Statistics of SCReAM

Start at: 2019-10-03 09:05:55
End at: 2019-10-03 09:06:25
Local clock offset: 2.843 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.200 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.200 ms
Loss rate: 0.13%
```

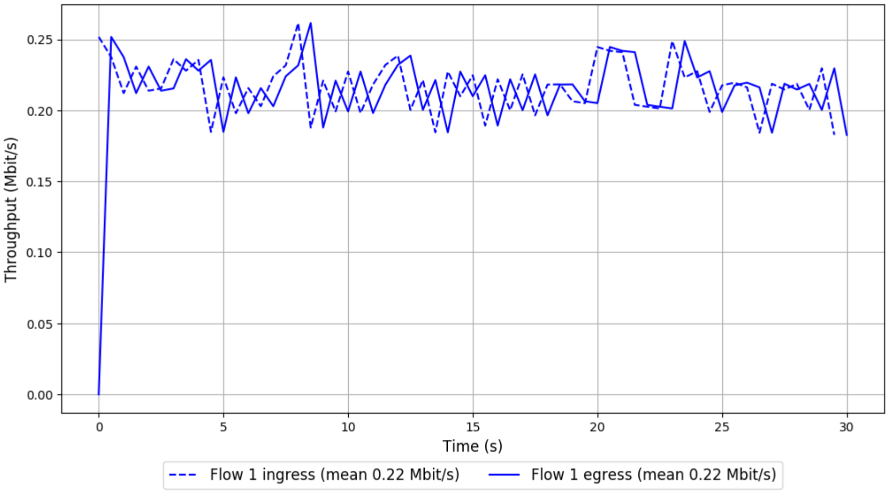
Run 4: Report of SCReAM — Data Link

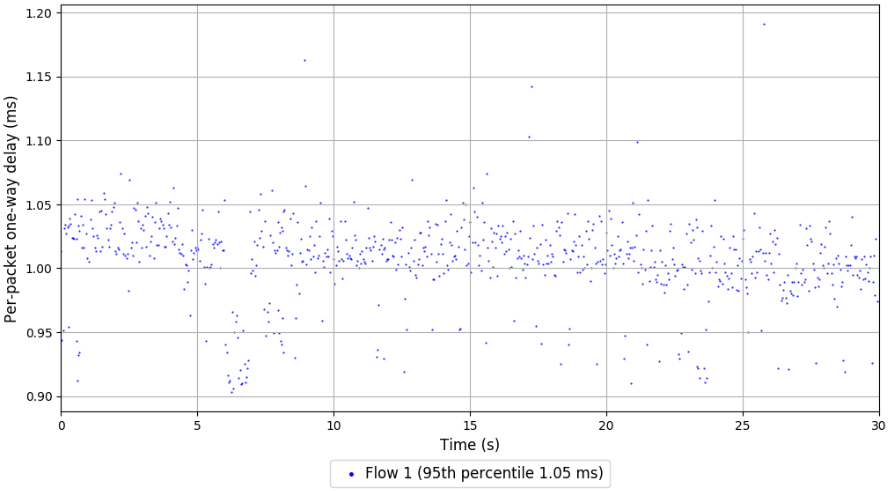




```
Run 5: Statistics of SCReAM

Start at: 2019-10-03 09:39:33
End at: 2019-10-03 09:40:03
Local clock offset: 4.411 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.00%
```

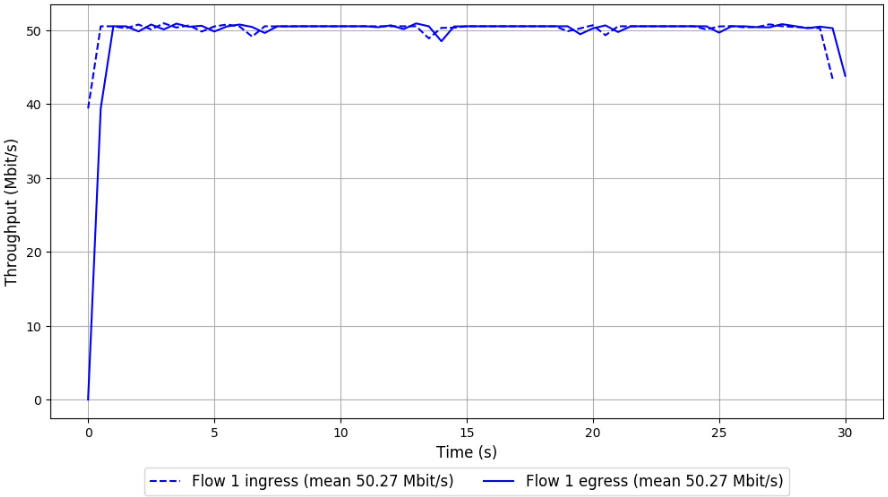
Run 5: Report of SCReAM — Data Link

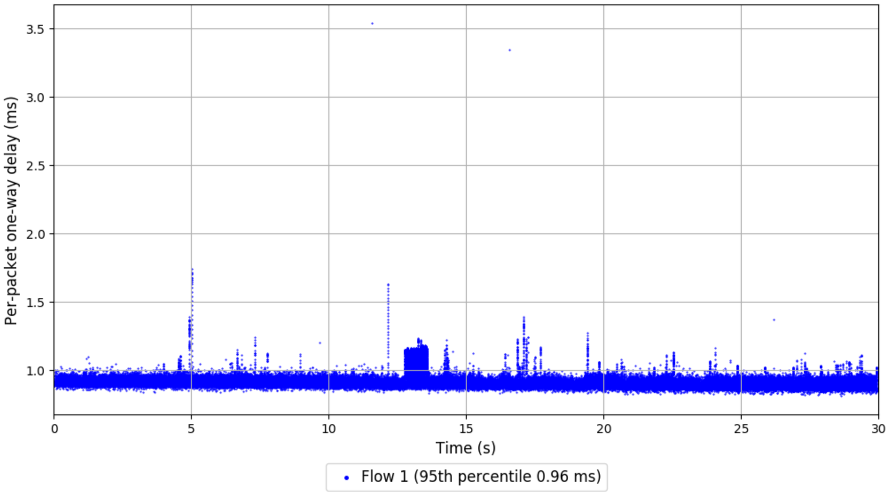




```
Run 1: Statistics of Sprout

Start at: 2019-10-03 07:19:26
End at: 2019-10-03 07:19:56
Local clock offset: 5.079 ms
Remote clock offset: 0.578 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.00%
```

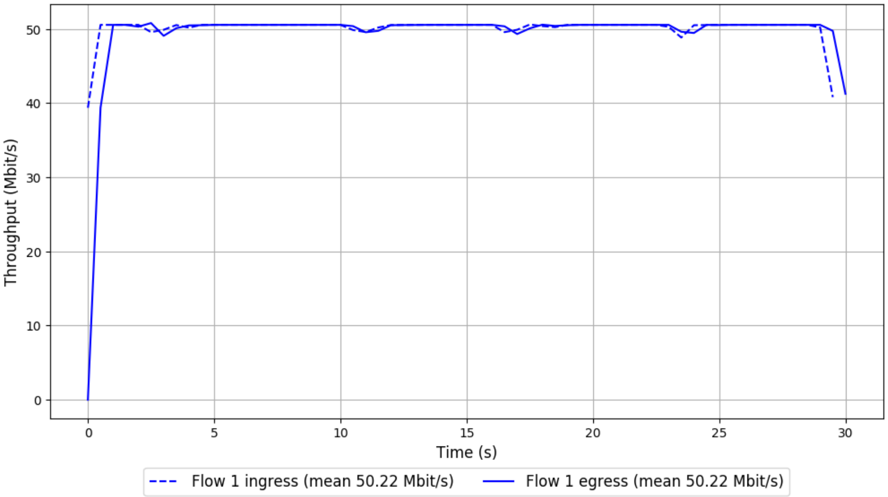
Run 1: Report of Sprout — Data Link

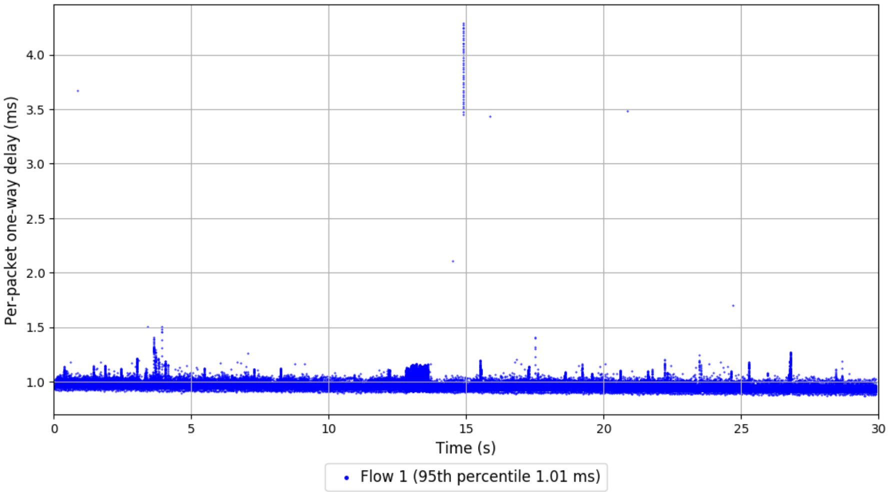




```
Run 2: Statistics of Sprout

Start at: 2019-10-03 07:53:26
End at: 2019-10-03 07:53:56
Local clock offset: 5.909 ms
Remote clock offset: 0.48 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.00%
```

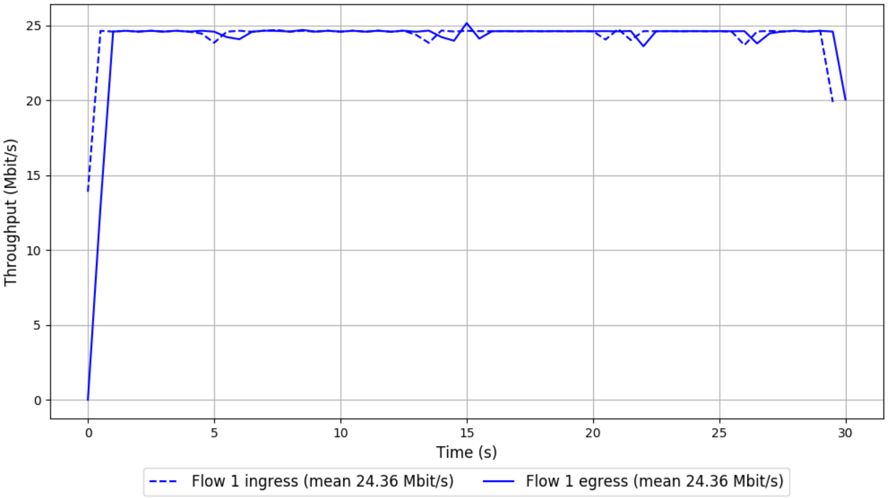
Run 2: Report of Sprout — Data Link

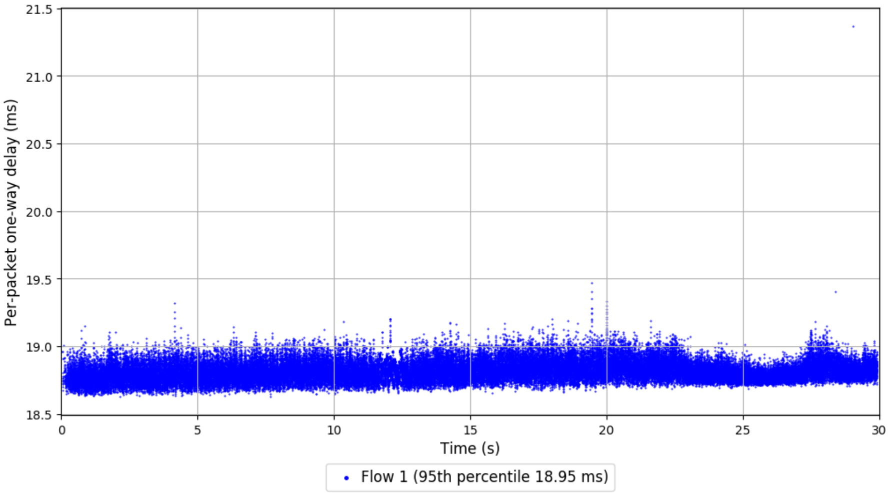




```
Run 3: Statistics of Sprout

Start at: 2019-10-03 08:27:57
End at: 2019-10-03 08:28:27
Local clock offset: 5.634 ms
Remote clock offset: 0.29 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 18.953 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 18.953 ms
Loss rate: 0.06%
```

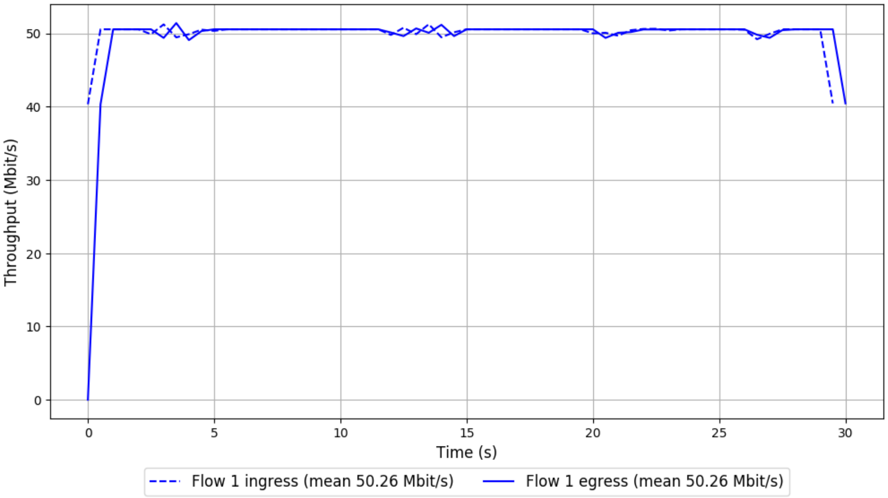
Run 3: Report of Sprout — Data Link

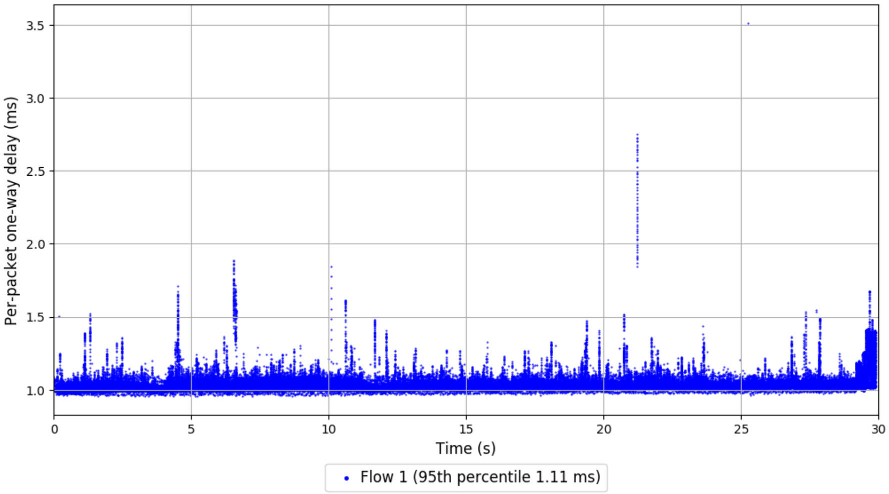




```
Run 4: Statistics of Sprout

Start at: 2019-10-03 09:01:40
End at: 2019-10-03 09:02:10
Local clock offset: 3.004 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
```

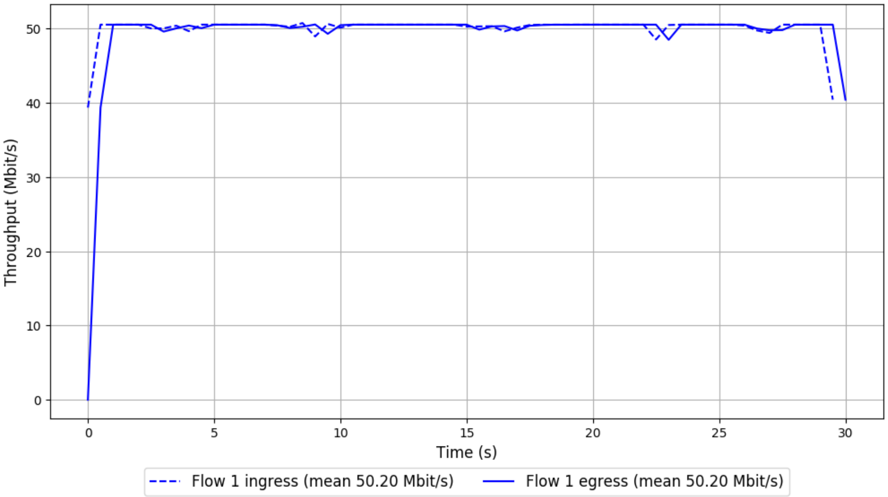
Run 4: Report of Sprout — Data Link

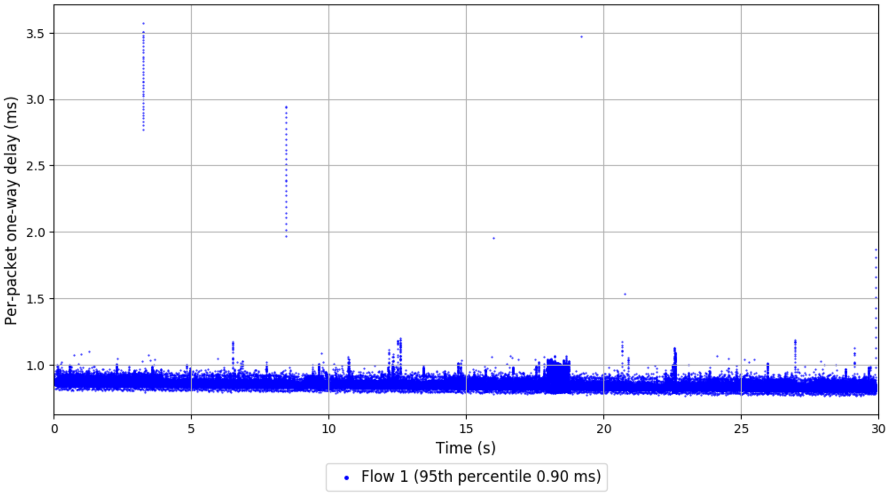




```
Run 5: Statistics of Sprout

Start at: 2019-10-03 09:35:21
End at: 2019-10-03 09:35:51
Local clock offset: 4.06 ms
Remote clock offset: 0.077 ms

# Below is generated by plot.py at 2019-10-03 10:51:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.20 Mbit/s
95th percentile per-packet one-way delay: 0.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.20 Mbit/s
95th percentile per-packet one-way delay: 0.898 ms
Loss rate: 0.00%
```

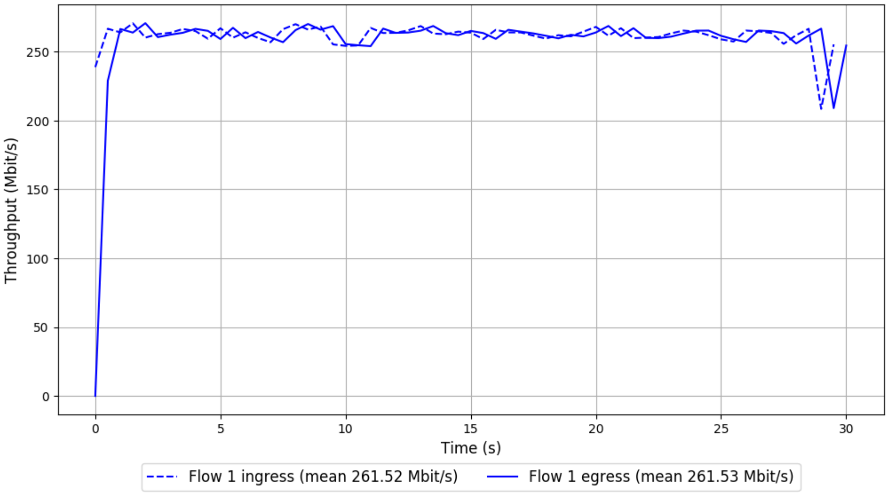
Run 5: Report of Sprout — Data Link

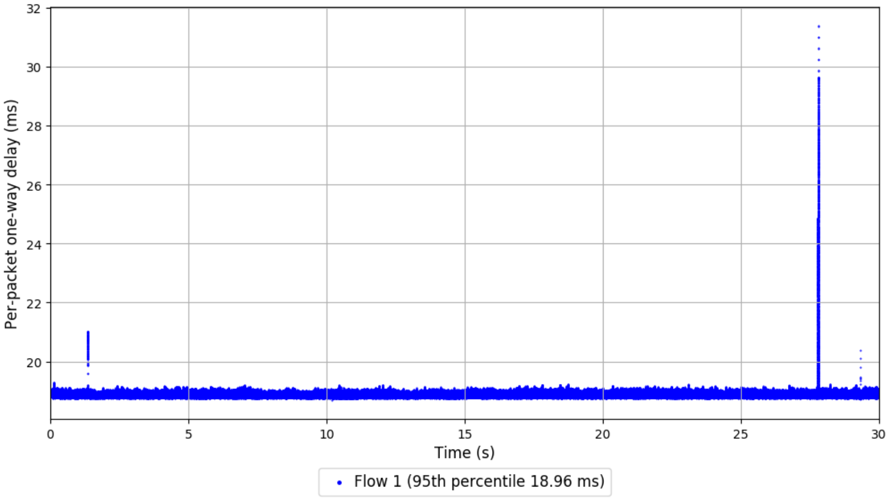




```
Run 1: Statistics of TaoVA-100x

Start at: 2019-10-03 07:13:29
End at: 2019-10-03 07:13:59
Local clock offset: 4.904 ms
Remote clock offset: 0.519 ms

# Below is generated by plot.py at 2019-10-03 10:55:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.53 Mbit/s
95th percentile per-packet one-way delay: 18.964 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 261.53 Mbit/s
95th percentile per-packet one-way delay: 18.964 ms
Loss rate: 0.06%
```

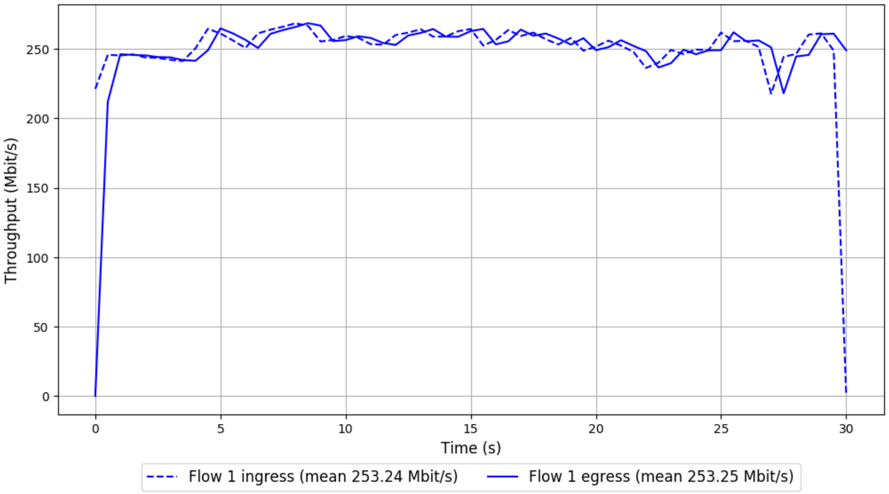
Run 1: Report of TaoVA-100x — Data Link

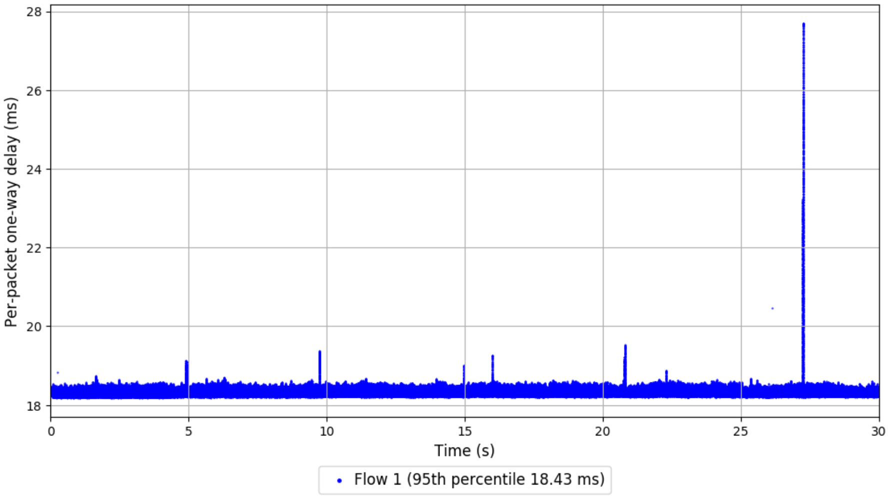




```
Run 2: Statistics of TaoVA-100x

Start at: 2019-10-03 07:47:39
End at: 2019-10-03 07:48:09
Local clock offset: 5.818 ms
Remote clock offset: 0.497 ms

# Below is generated by plot.py at 2019-10-03 10:55:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 253.25 Mbit/s
95th percentile per-packet one-way delay: 18.427 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 253.25 Mbit/s
95th percentile per-packet one-way delay: 18.427 ms
Loss rate: 0.06%
```

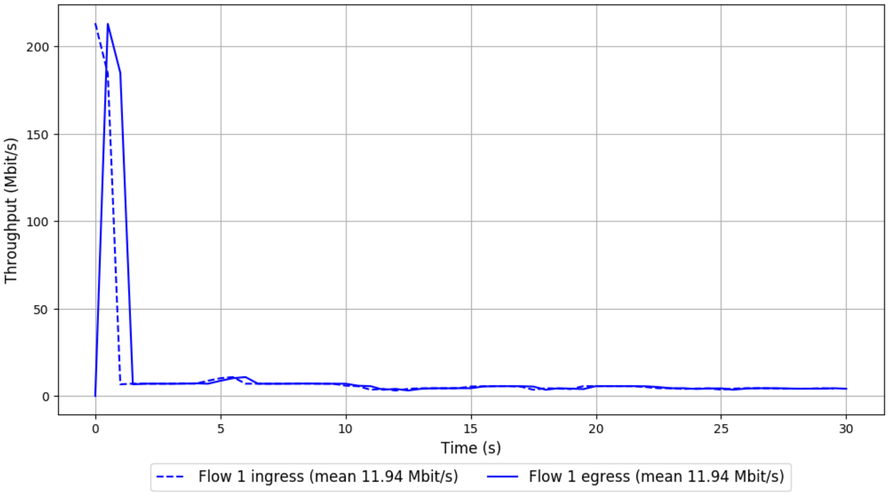
Run 2: Report of TaoVA-100x — Data Link

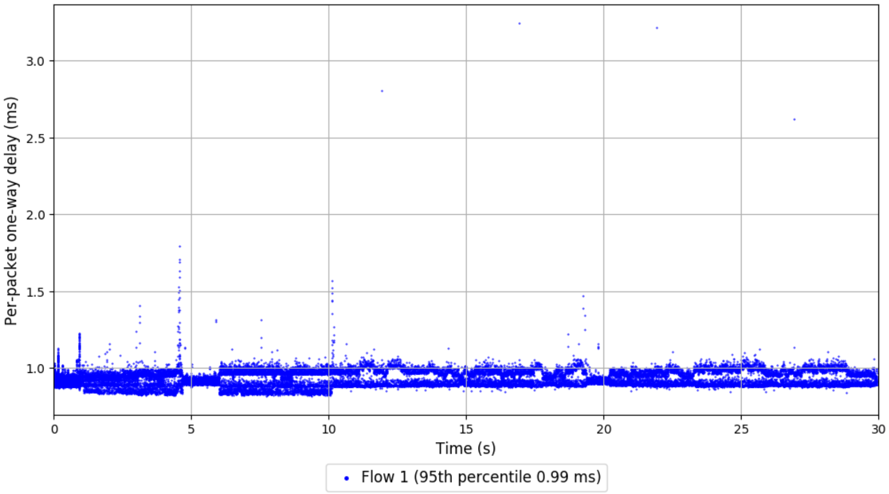




```
Run 3: Statistics of TaoVA-100x

Start at: 2019-10-03 08:22:20
End at: 2019-10-03 08:22:50
Local clock offset: 6.509 ms
Remote clock offset: 0.338 ms

# Below is generated by plot.py at 2019-10-03 10:55:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.00%
```

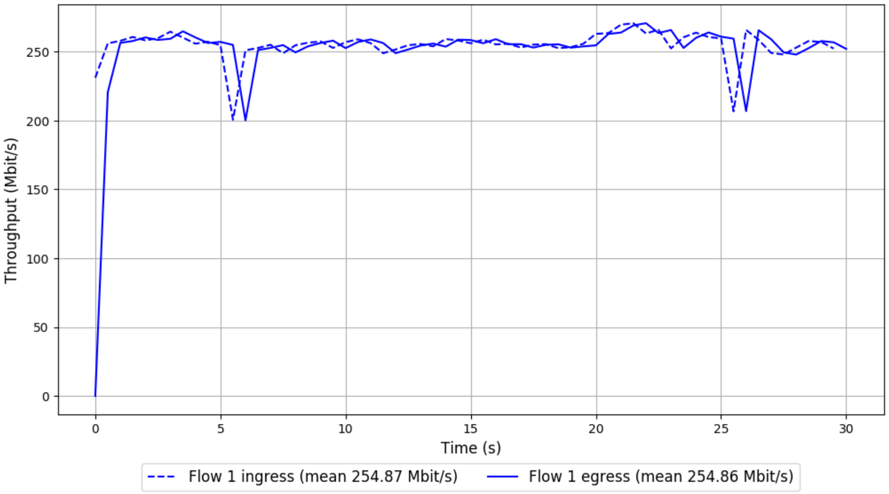
Run 3: Report of TaoVA-100x — Data Link

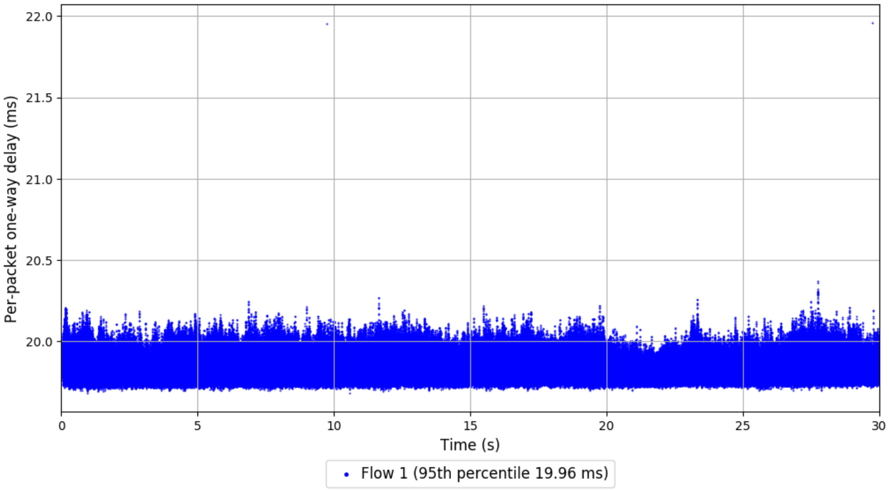




```
Run 4: Statistics of TaoVA-100x

Start at: 2019-10-03 08:55:44
End at: 2019-10-03 08:56:14
Local clock offset: 3.165 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2019-10-03 10:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.86 Mbit/s
95th percentile per-packet one-way delay: 19.960 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 254.86 Mbit/s
95th percentile per-packet one-way delay: 19.960 ms
Loss rate: 0.07%
```

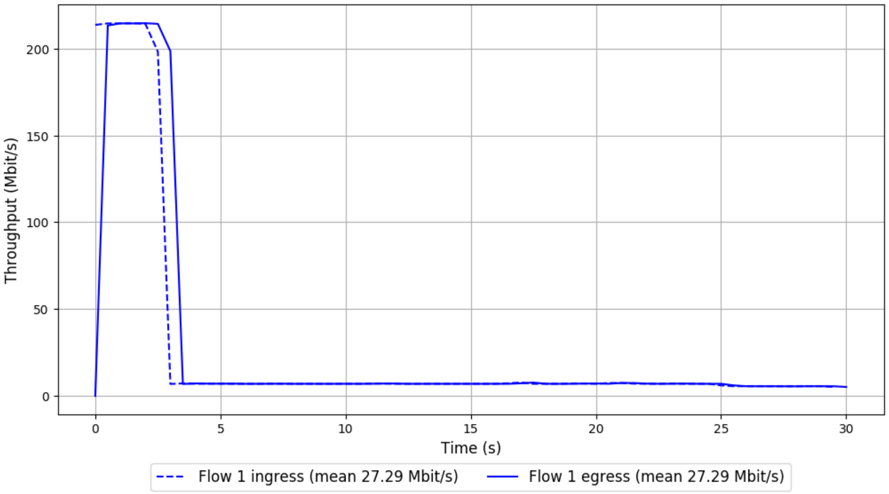
Run 4: Report of TaoVA-100x — Data Link

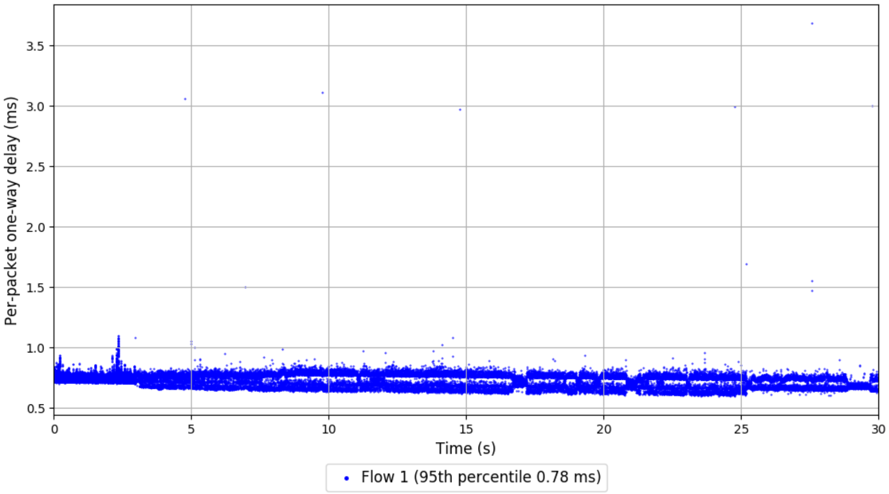




```
Run 5: Statistics of TaoVA-100x

Start at: 2019-10-03 09:29:40
End at: 2019-10-03 09:30:10
Local clock offset: 3.351 ms
Remote clock offset: 0.175 ms

# Below is generated by plot.py at 2019-10-03 10:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 0.775 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 0.775 ms
Loss rate: 0.00%
```

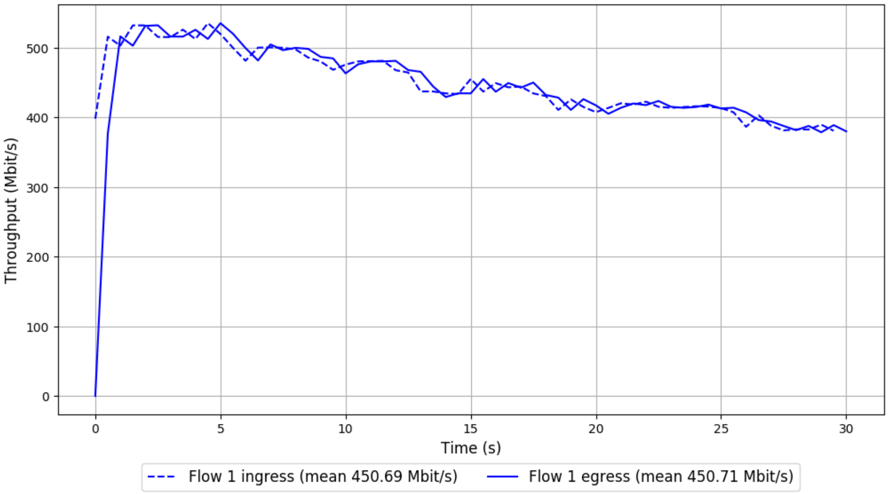
Run 5: Report of TaoVA-100x — Data Link

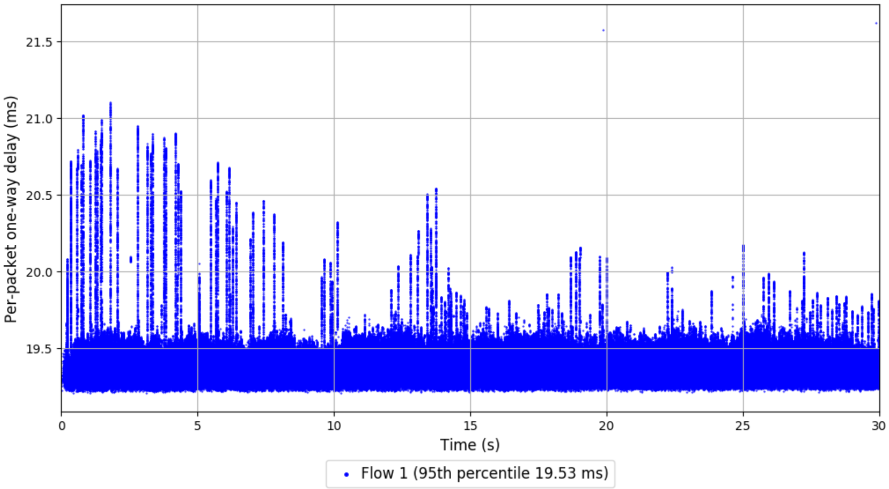




```
Run 1: Statistics of TCP Vegas

Start at: 2019-10-03 07:14:59
End at: 2019-10-03 07:15:29
Local clock offset: 4.945 ms
Remote clock offset: 0.521 ms

# Below is generated by plot.py at 2019-10-03 10:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 450.71 Mbit/s
95th percentile per-packet one-way delay: 19.529 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 450.71 Mbit/s
95th percentile per-packet one-way delay: 19.529 ms
Loss rate: 0.06%
```

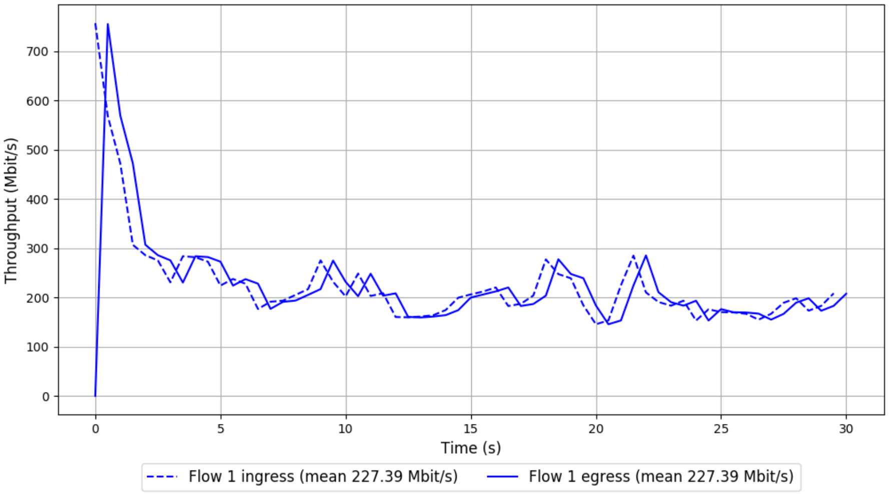
Run 1: Report of TCP Vegas — Data Link

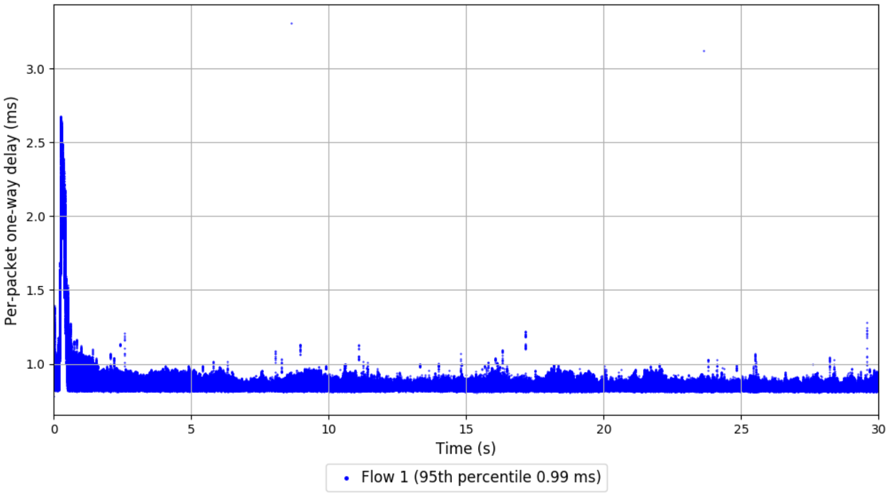




```
Run 2: Statistics of TCP Vegas

Start at: 2019-10-03 07:49:08
End at: 2019-10-03 07:49:38
Local clock offset: 5.796 ms
Remote clock offset: 0.636 ms

# Below is generated by plot.py at 2019-10-03 10:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.39 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.39 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
```

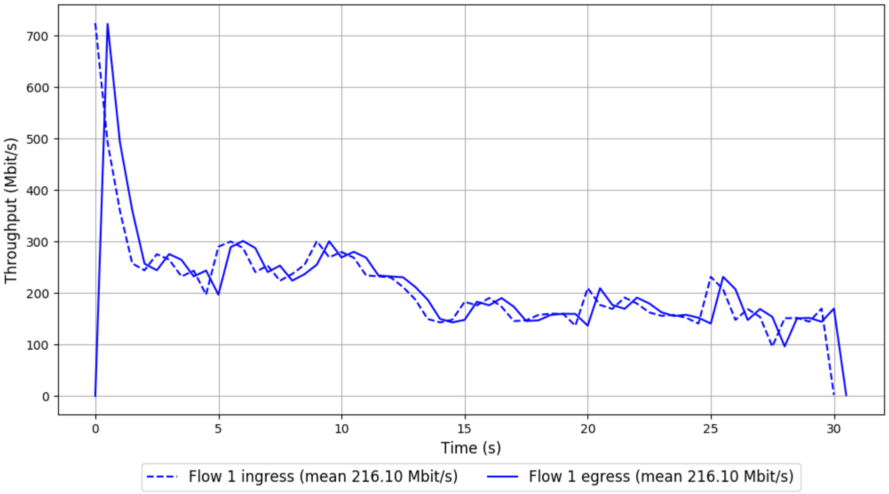
Run 2: Report of TCP Vegas — Data Link

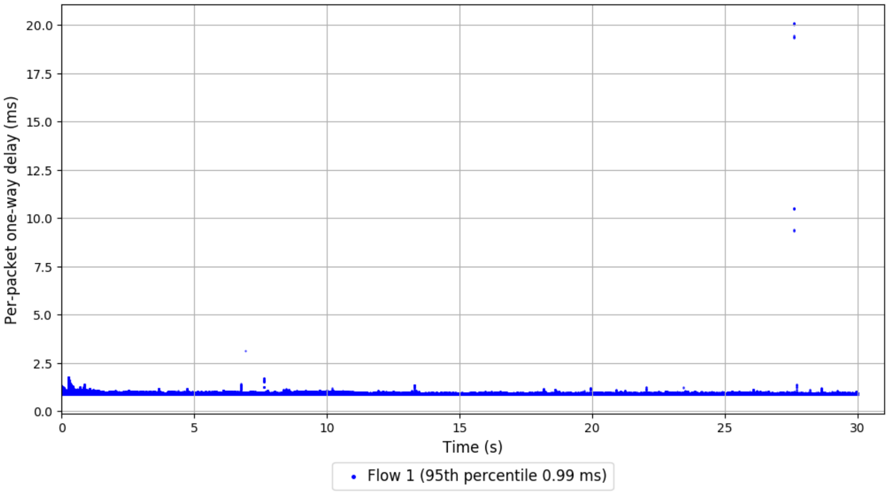




```
Run 3: Statistics of TCP Vegas

Start at: 2019-10-03 08:23:34
End at: 2019-10-03 08:24:04
Local clock offset: 6.522 ms
Remote clock offset: 0.329 ms

# Below is generated by plot.py at 2019-10-03 10:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.10 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 216.10 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.01%
```

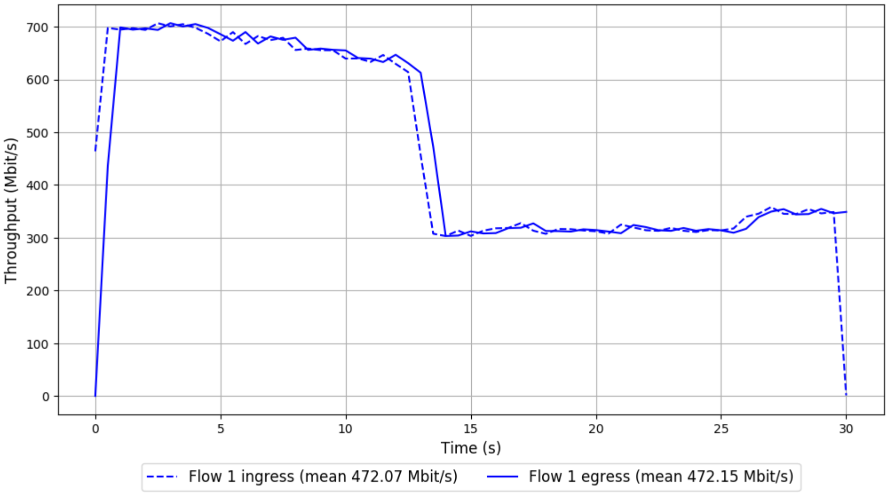
Run 3: Report of TCP Vegas — Data Link

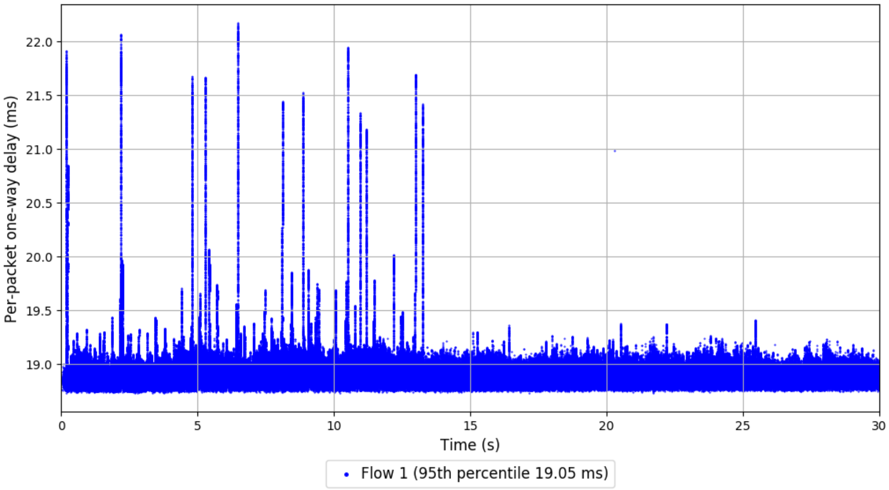




```
Run 4: Statistics of TCP Vegas

Start at: 2019-10-03 08:57:13
End at: 2019-10-03 08:57:43
Local clock offset: 3.144 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2019-10-03 10:56:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 472.15 Mbit/s
95th percentile per-packet one-way delay: 19.054 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 472.15 Mbit/s
95th percentile per-packet one-way delay: 19.054 ms
Loss rate: 0.05%
```

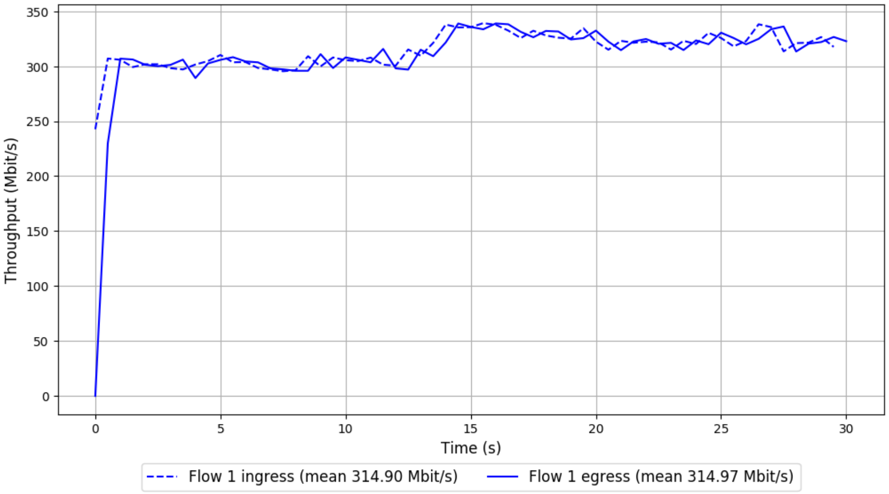
Run 4: Report of TCP Vegas — Data Link

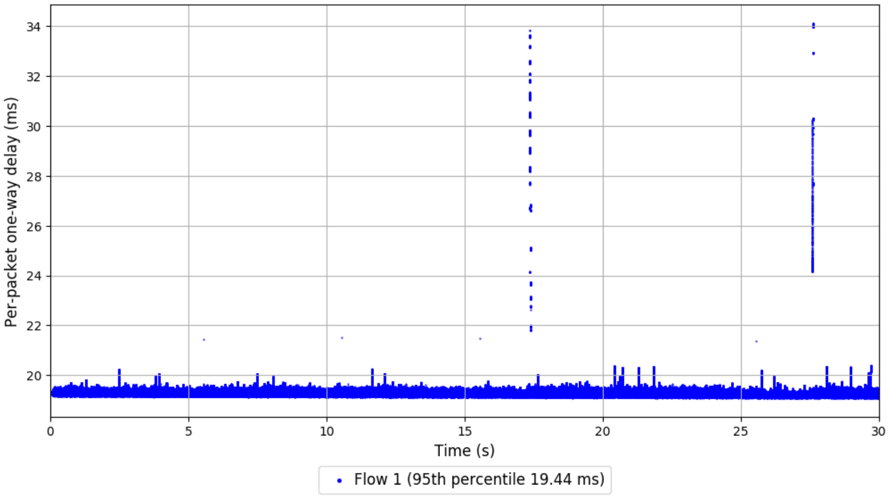




```
Run 5: Statistics of TCP Vegas

Start at: 2019-10-03 09:30:55
End at: 2019-10-03 09:31:25
Local clock offset: 3.56 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2019-10-03 10:56:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 314.97 Mbit/s
95th percentile per-packet one-way delay: 19.444 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 314.97 Mbit/s
95th percentile per-packet one-way delay: 19.444 ms
Loss rate: 0.04%
```

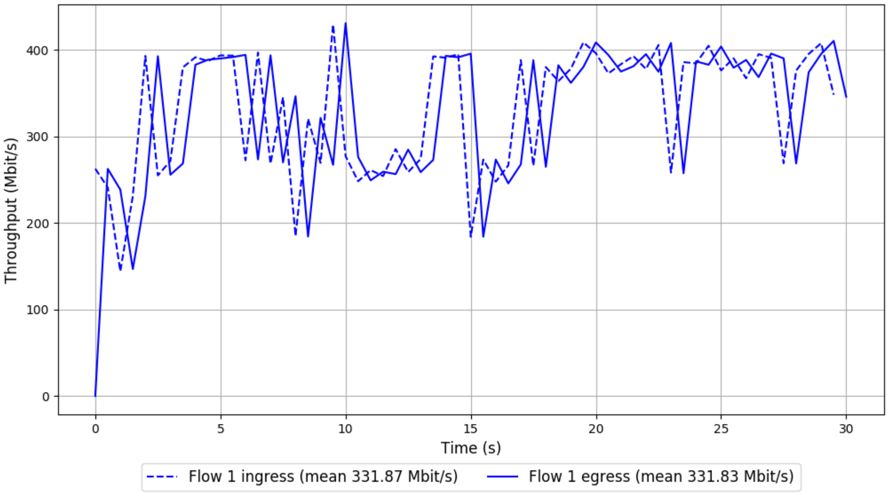
Run 5: Report of TCP Vegas — Data Link

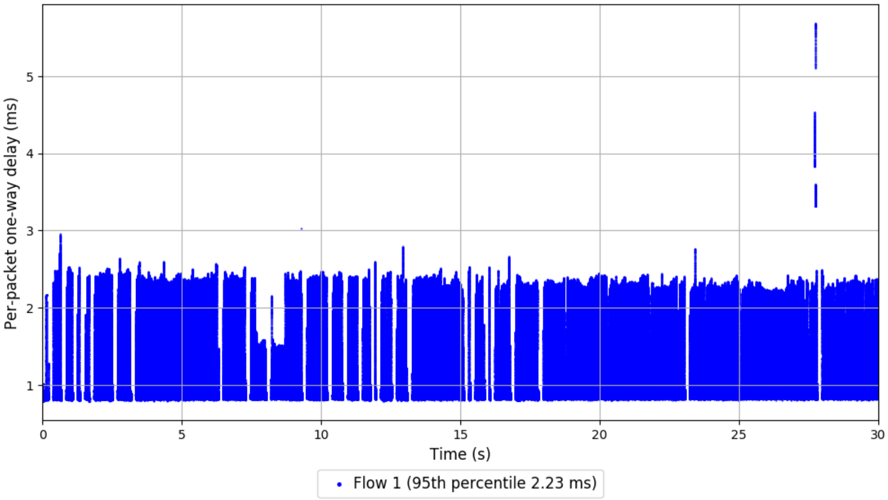




```
Run 1: Statistics of Verus

Start at: 2019-10-03 07:12:01
End at: 2019-10-03 07:12:31
Local clock offset: 4.871 ms
Remote clock offset: 0.535 ms

# Below is generated by plot.py at 2019-10-03 10:56:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 331.83 Mbit/s
95th percentile per-packet one-way delay: 2.234 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 331.83 Mbit/s
95th percentile per-packet one-way delay: 2.234 ms
Loss rate: 0.01%
```

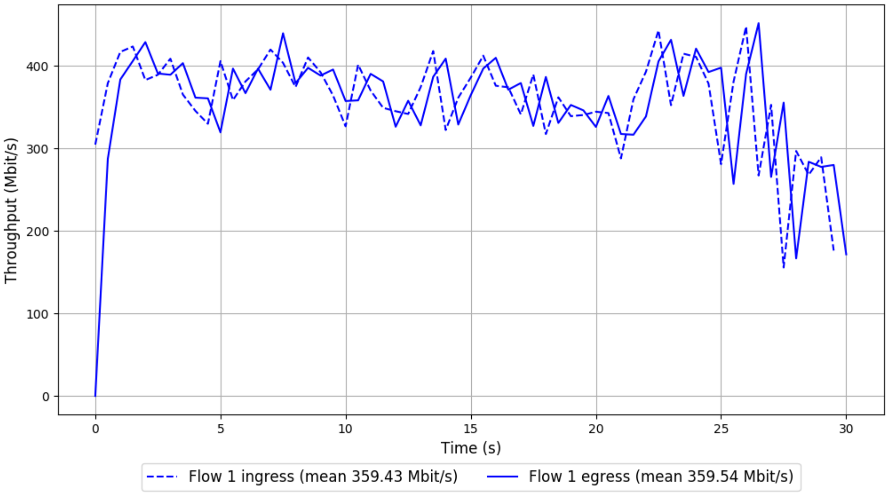
Run 1: Report of Verus — Data Link

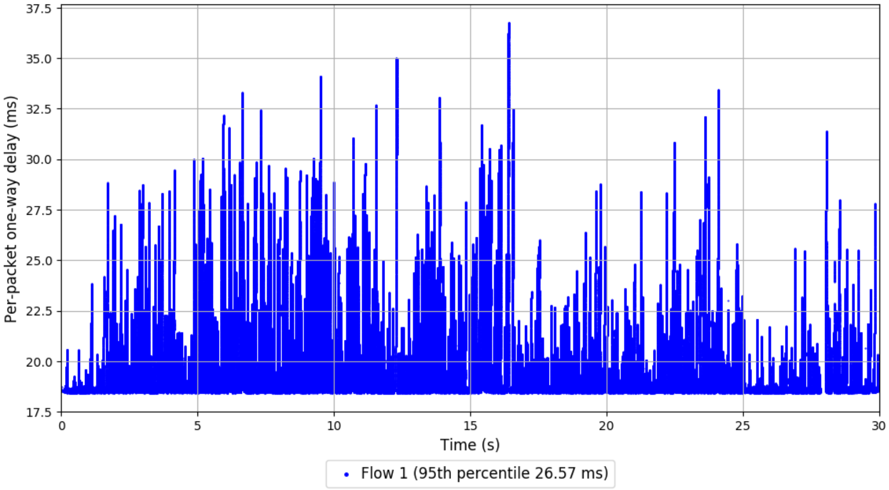




```
Run 2: Statistics of Verus

Start at: 2019-10-03 07:46:10
End at: 2019-10-03 07:46:40
Local clock offset: 5.74 ms
Remote clock offset: 0.608 ms

# Below is generated by plot.py at 2019-10-03 10:57:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 359.54 Mbit/s
95th percentile per-packet one-way delay: 26.565 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 359.54 Mbit/s
95th percentile per-packet one-way delay: 26.565 ms
Loss rate: 0.08%
```

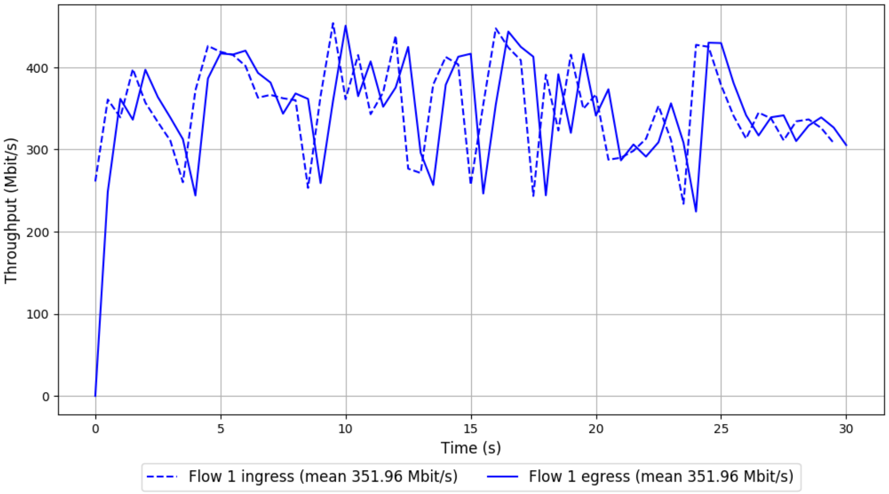
Run 2: Report of Verus — Data Link

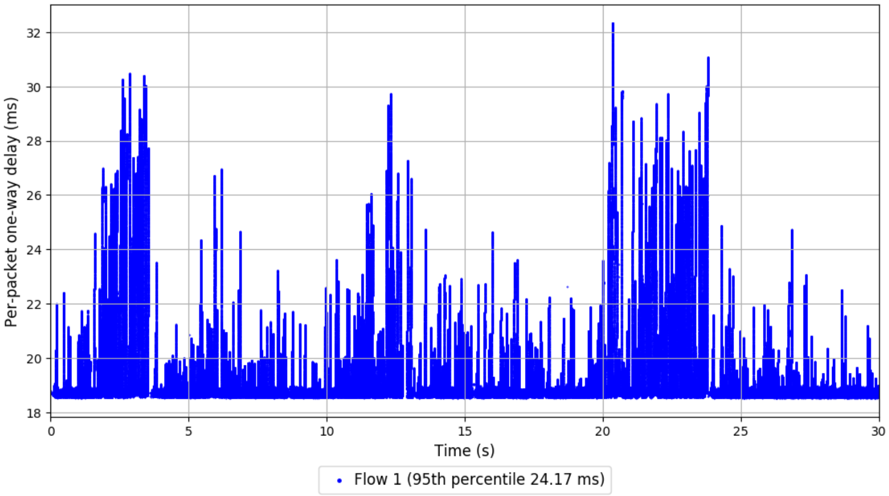




```
Run 3: Statistics of Verus

Start at: 2019-10-03 08:20:51
End at: 2019-10-03 08:21:21
Local clock offset: 6.43 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2019-10-03 10:58:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 351.96 Mbit/s
95th percentile per-packet one-way delay: 24.168 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 351.96 Mbit/s
95th percentile per-packet one-way delay: 24.168 ms
Loss rate: 0.07%
```

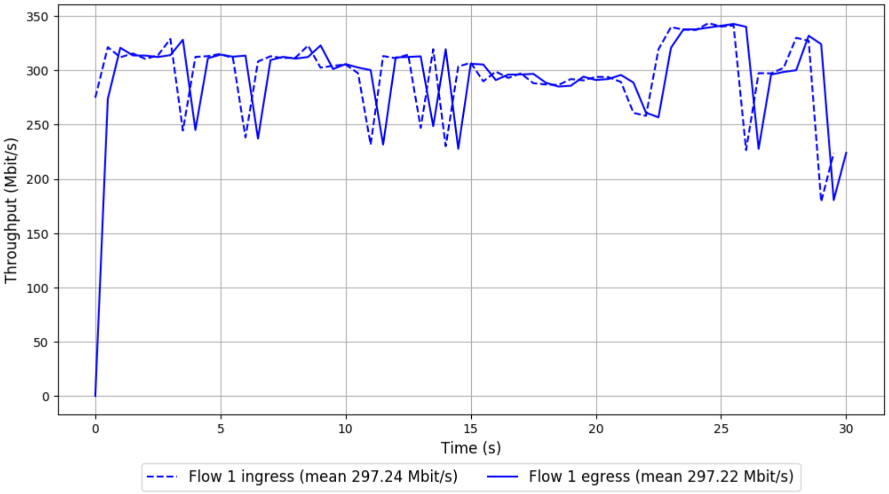
Run 3: Report of Verus — Data Link

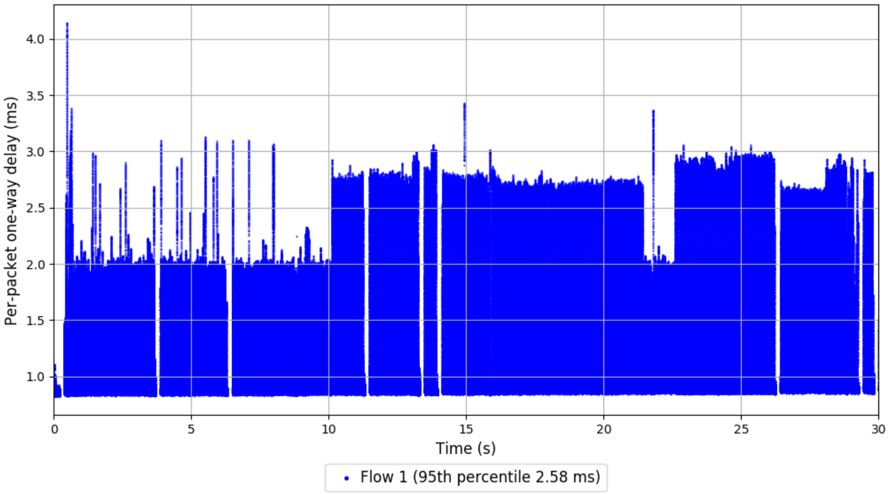




```
Run 4: Statistics of Verus

Start at: 2019-10-03 08:54:17
End at: 2019-10-03 08:54:47
Local clock offset: 3.235 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2019-10-03 10:58:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 297.22 Mbit/s
95th percentile per-packet one-way delay: 2.576 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 297.22 Mbit/s
95th percentile per-packet one-way delay: 2.576 ms
Loss rate: 0.01%
```

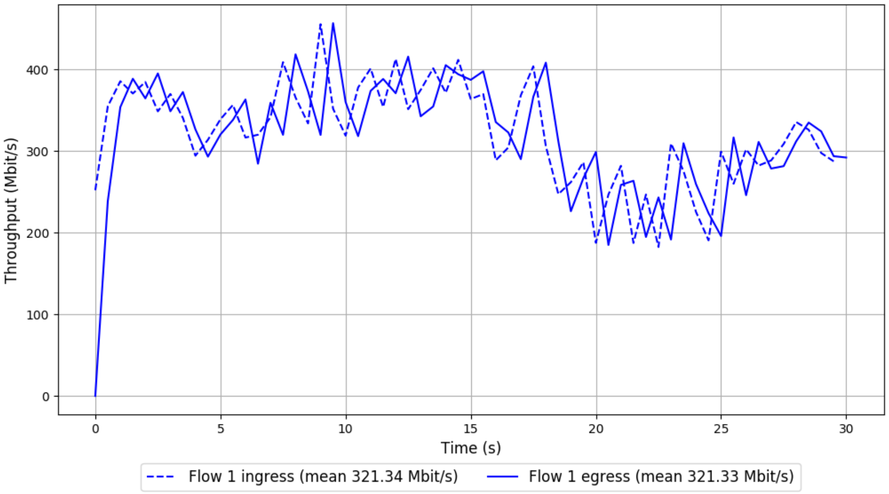
Run 4: Report of Verus — Data Link

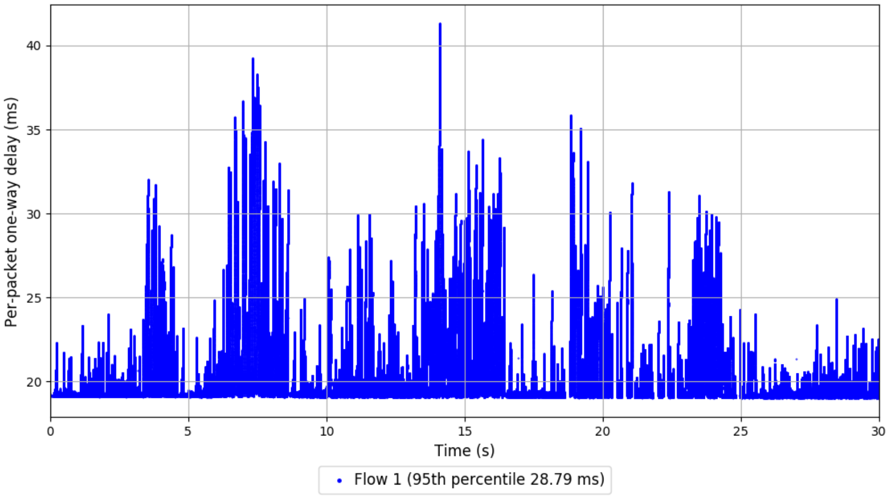




```
Run 5: Statistics of Verus

Start at: 2019-10-03 09:28:13
End at: 2019-10-03 09:28:43
Local clock offset: 3.104 ms
Remote clock offset: 0.153 ms

# Below is generated by plot.py at 2019-10-03 10:59:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.33 Mbit/s
95th percentile per-packet one-way delay: 28.790 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 321.33 Mbit/s
95th percentile per-packet one-way delay: 28.790 ms
Loss rate: 0.07%
```

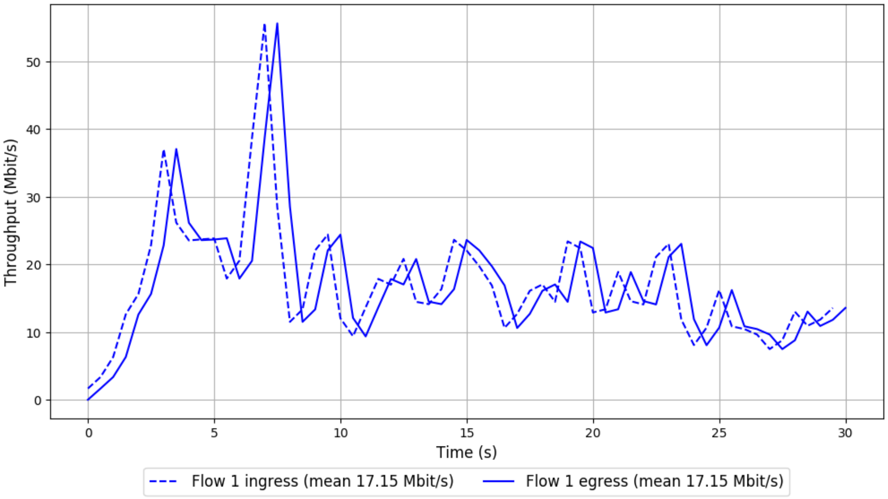
Run 5: Report of Verus — Data Link

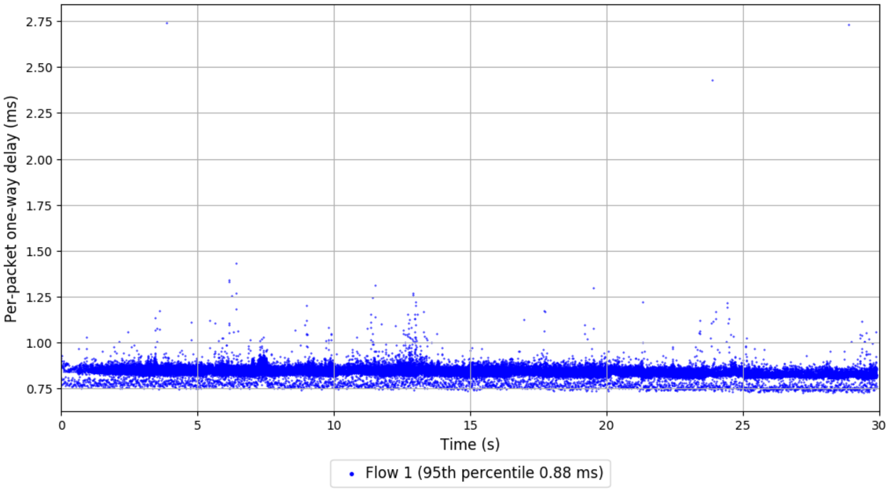




```
Run 1: Statistics of PCC-Vivace

Start at: 2019-10-03 07:27:43
End at: 2019-10-03 07:28:13
Local clock offset: 5.244 ms
Remote clock offset: 0.351 ms

# Below is generated by plot.py at 2019-10-03 10:59:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.15 Mbit/s
95th percentile per-packet one-way delay: 0.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 17.15 Mbit/s
95th percentile per-packet one-way delay: 0.881 ms
Loss rate: 0.00%
```

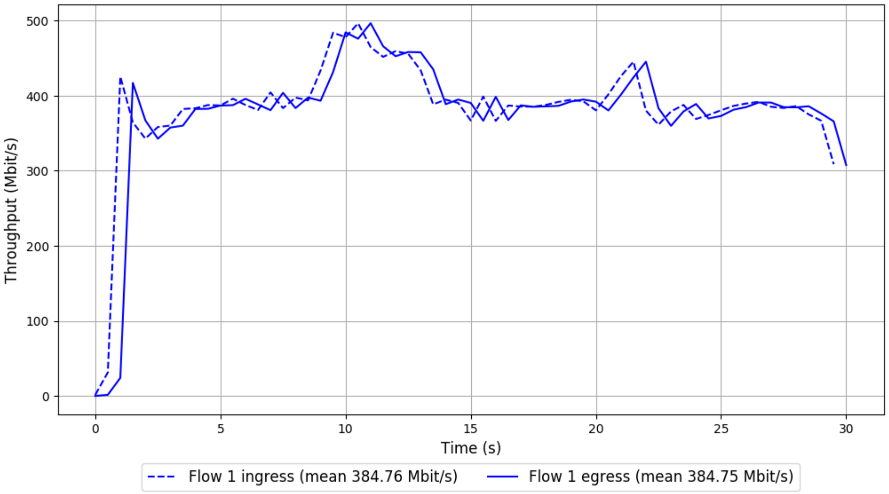
Run 1: Report of PCC-Vivace — Data Link

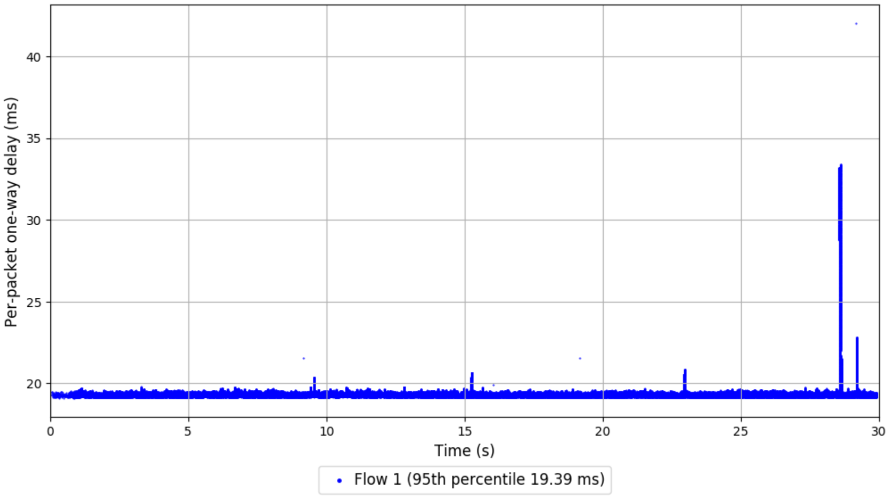




```
Run 2: Statistics of PCC-Vivace

Start at: 2019-10-03 08:01:54
End at: 2019-10-03 08:02:24
Local clock offset: 6.094 ms
Remote clock offset: 0.284 ms

# Below is generated by plot.py at 2019-10-03 10:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 384.75 Mbit/s
95th percentile per-packet one-way delay: 19.391 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 384.75 Mbit/s
95th percentile per-packet one-way delay: 19.391 ms
Loss rate: 0.07%
```

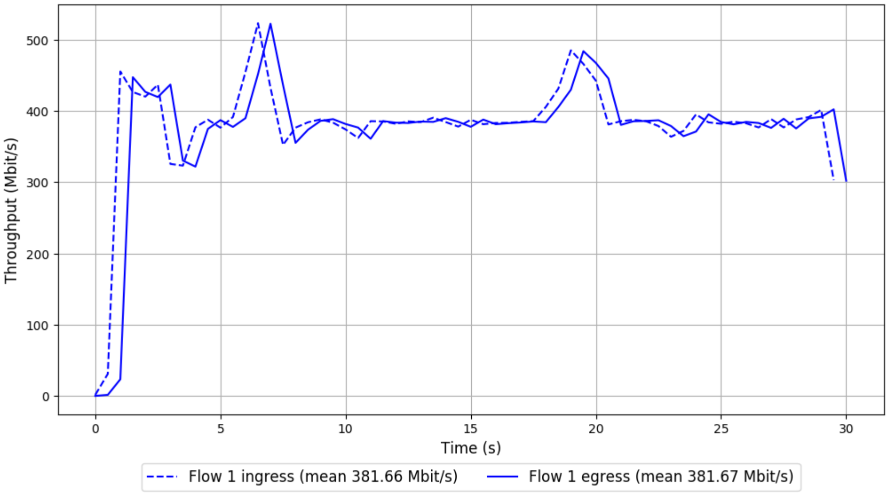
Run 2: Report of PCC-Vivace — Data Link

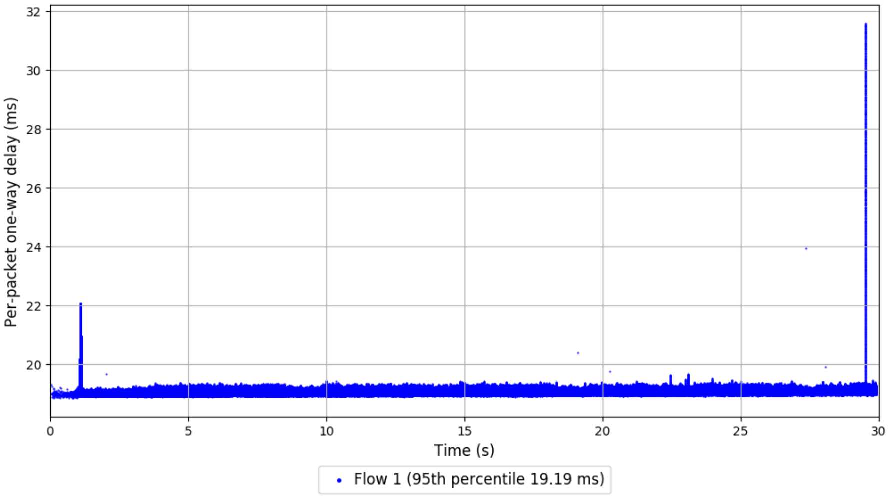




```
Run 3: Statistics of PCC-Vivace

Start at: 2019-10-03 08:36:12
End at: 2019-10-03 08:36:42
Local clock offset: 4.333 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-10-03 10:59:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.67 Mbit/s
95th percentile per-packet one-way delay: 19.194 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 381.67 Mbit/s
95th percentile per-packet one-way delay: 19.194 ms
Loss rate: 0.06%
```

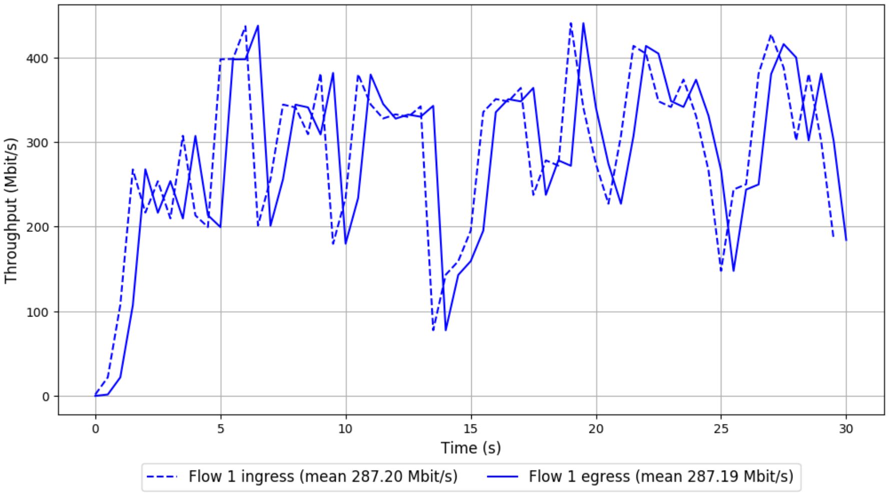
Run 3: Report of PCC-Vivace — Data Link

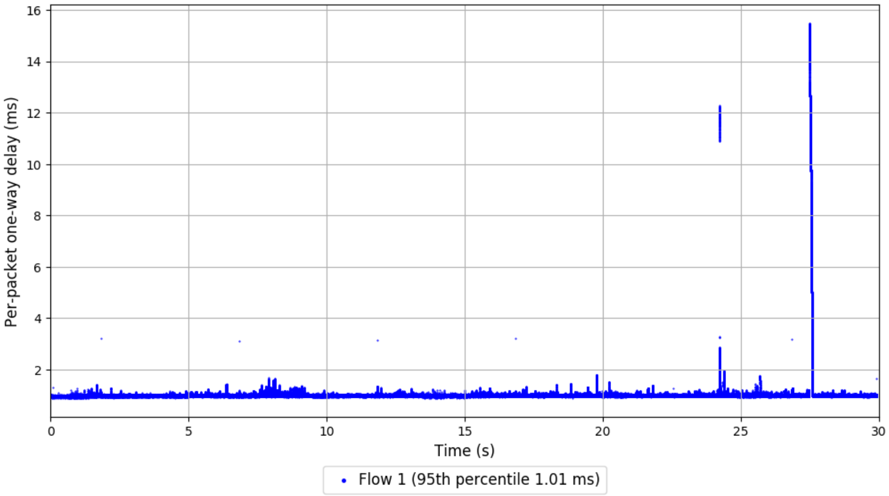




```
Run 4: Statistics of PCC-Vivace

Start at: 2019-10-03 09:10:07
End at: 2019-10-03 09:10:37
Local clock offset: 2.712 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2019-10-03 10:59:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 287.19 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 287.19 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.01%
```

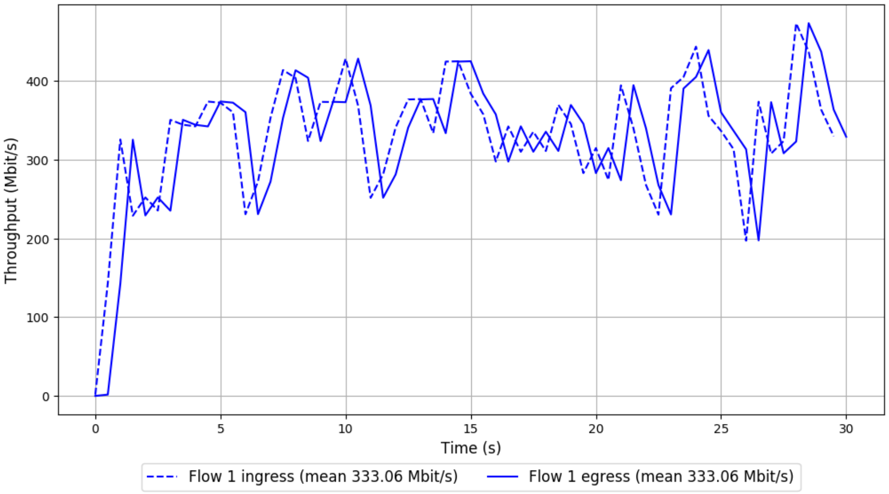
Run 4: Report of PCC-Vivace — Data Link

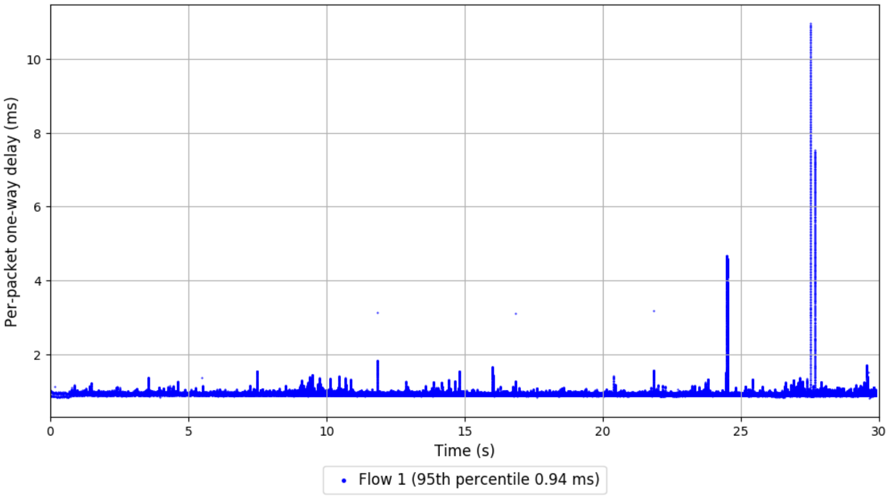




```
Run 5: Statistics of PCC-Vivace

Start at: 2019-10-03 09:43:35
End at: 2019-10-03 09:44:05
Local clock offset: 4.624 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 333.06 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 333.06 Mbit/s
95th percentile per-packet one-way delay: 0.945 ms
Loss rate: 0.01%
```

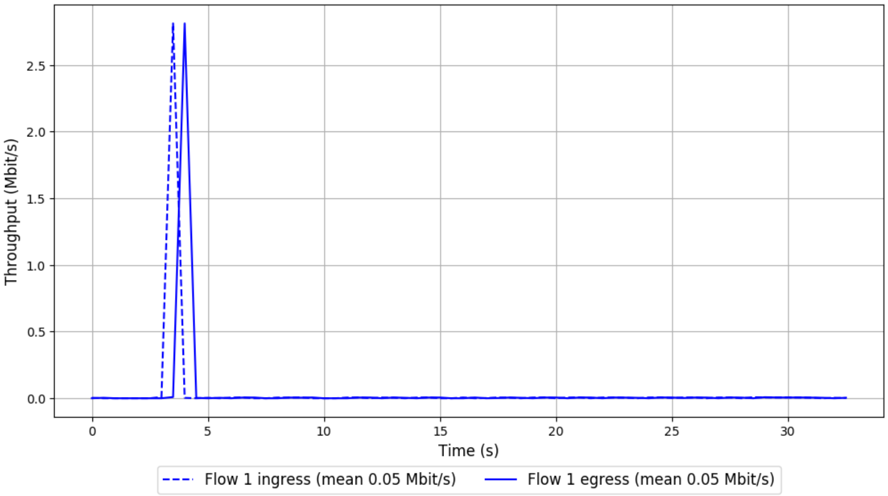
Run 5: Report of PCC-Vivace — Data Link

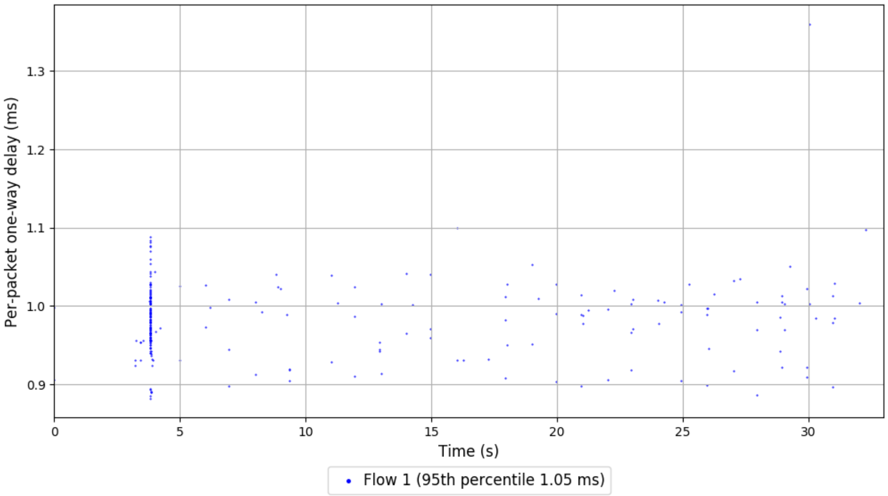




```
Run 1: Statistics of WebRTC media

Start at: 2019-10-03 07:04:55
End at: 2019-10-03 07:05:25
Local clock offset: 4.67 ms
Remote clock offset: 0.195 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.050 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.050 ms
Loss rate: 0.05%
```

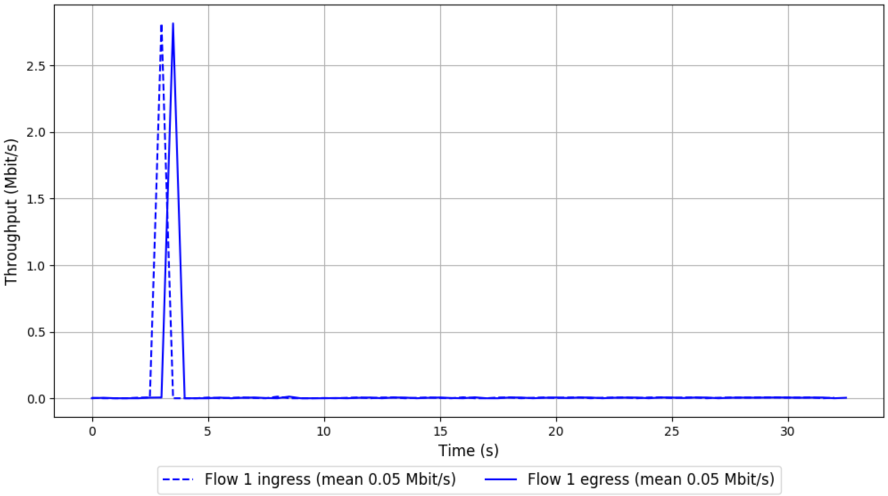
Run 1: Report of WebRTC media — Data Link

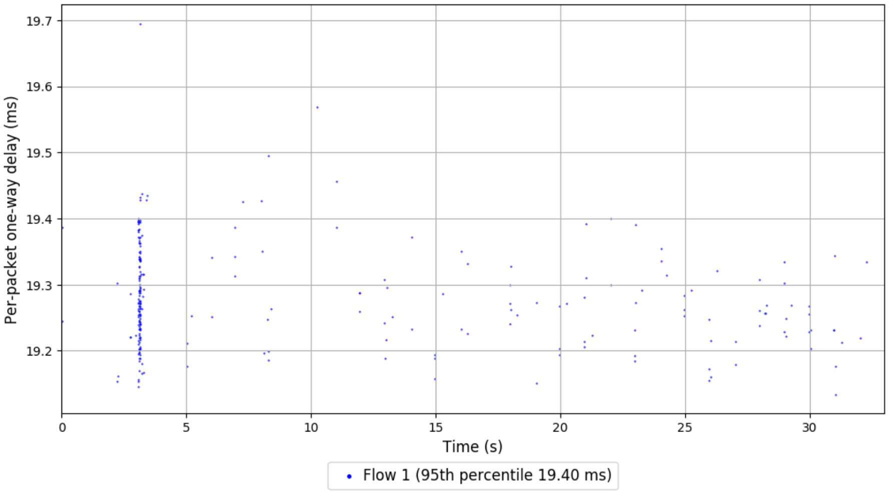




```
Run 2: Statistics of WebRTC media

Start at: 2019-10-03 07:39:07
End at: 2019-10-03 07:39:37
Local clock offset: 5.586 ms
Remote clock offset: 0.445 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 19.400 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 19.400 ms
Loss rate: 0.00%
```

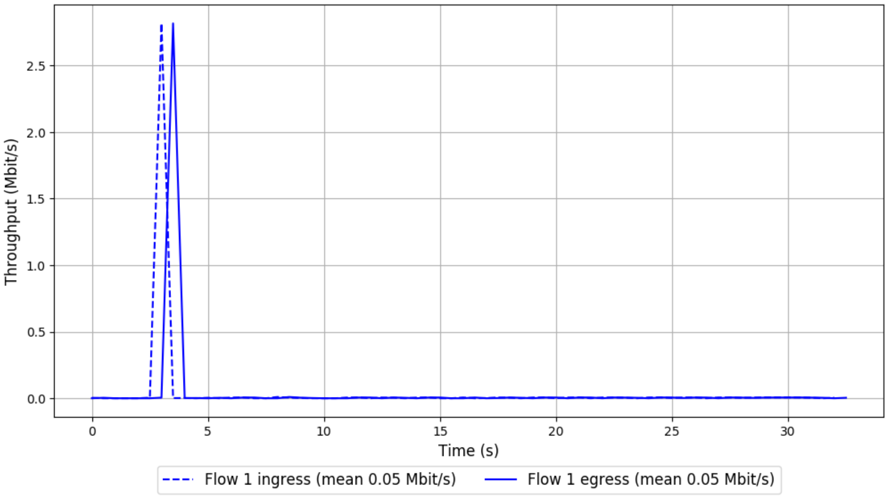
Run 2: Report of WebRTC media — Data Link

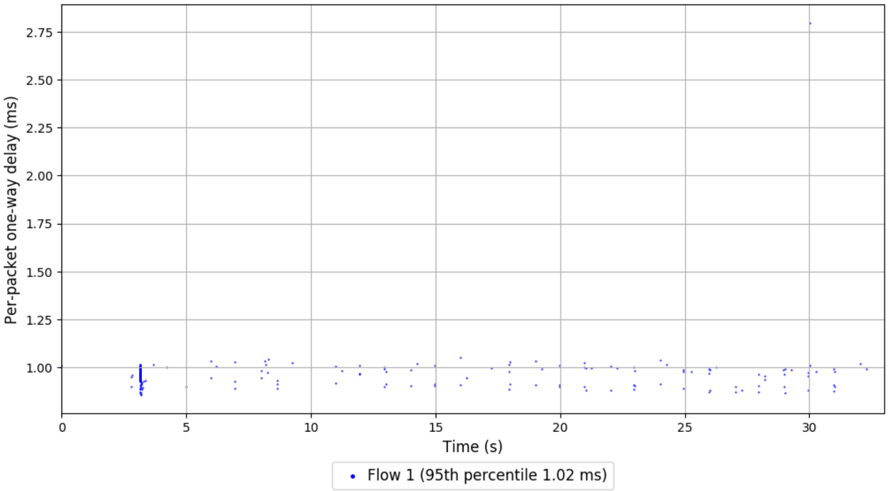




```
Run 3: Statistics of WebRTC media

Start at: 2019-10-03 08:13:45
End at: 2019-10-03 08:14:15
Local clock offset: 6.299 ms
Remote clock offset: 0.185 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 0.00%
```

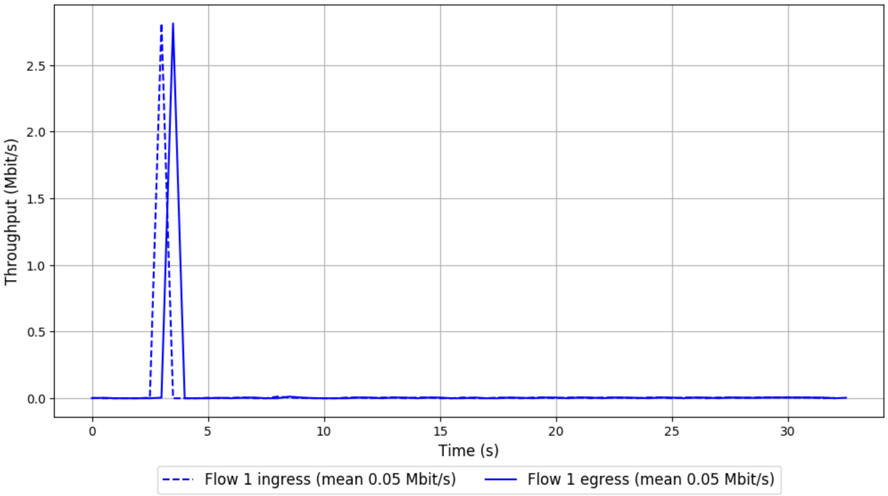
Run 3: Report of WebRTC media — Data Link

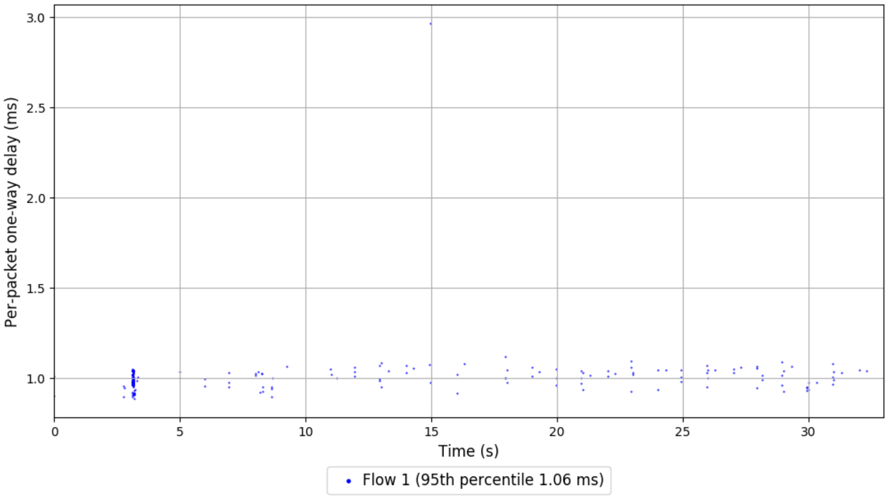




```
Run 4: Statistics of WebRTC media

Start at: 2019-10-03 08:47:42
End at: 2019-10-03 08:48:12
Local clock offset: 3.504 ms
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
```

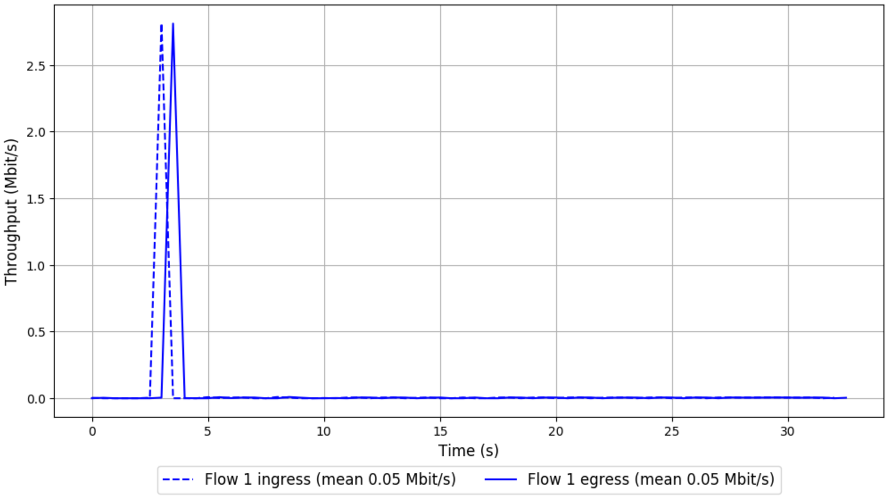
Run 4: Report of WebRTC media — Data Link



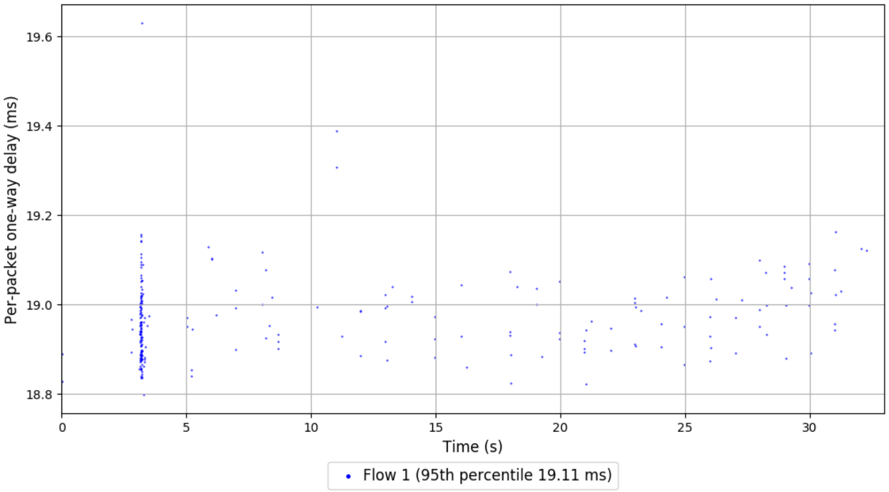


```
Run 5: Statistics of WebRTC media

Start at: 2019-10-03 09:21:37
End at: 2019-10-03 09:22:07
Local clock offset: 2.378 ms
Remote clock offset: 0.149 ms

# Below is generated by plot.py at 2019-10-03 10:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 19.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 19.114 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



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



Per-packet one-way delay (ms)
18.8
19.0
19.2
19.4
19.6
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 19.11 ms)