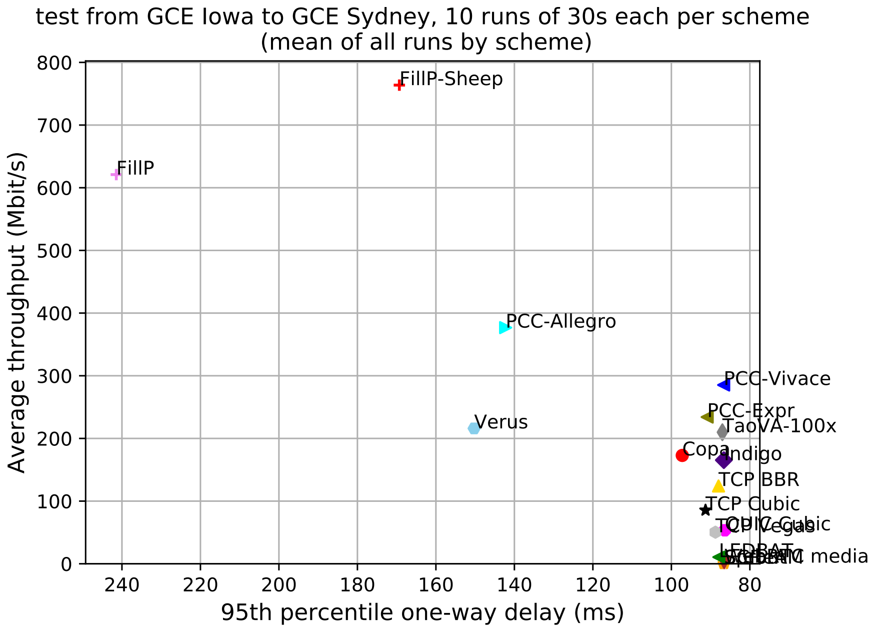
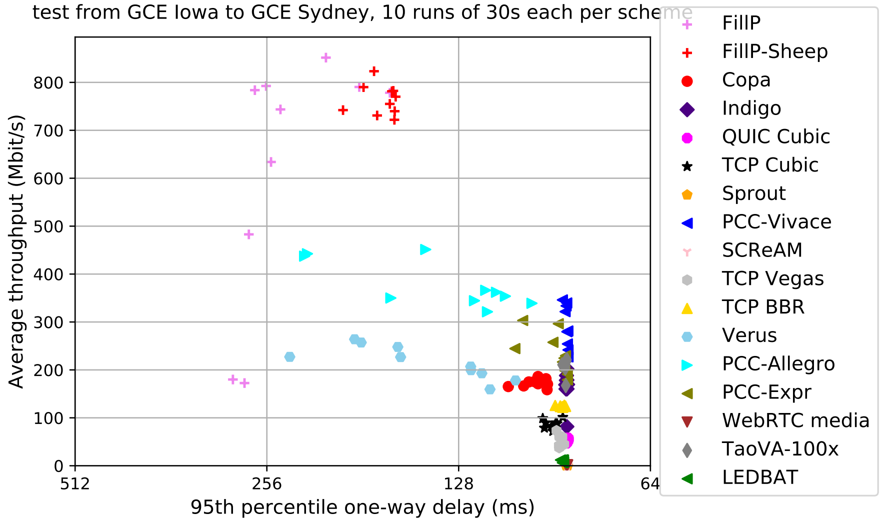
Pantheon Report

Generated at 2018-08-01 17:41:11 (UTC).
Data path: GCE Iowa Ethernet (*remote*) →GCE Sydney Ethernet (*local*).
Repeated the test of 17 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

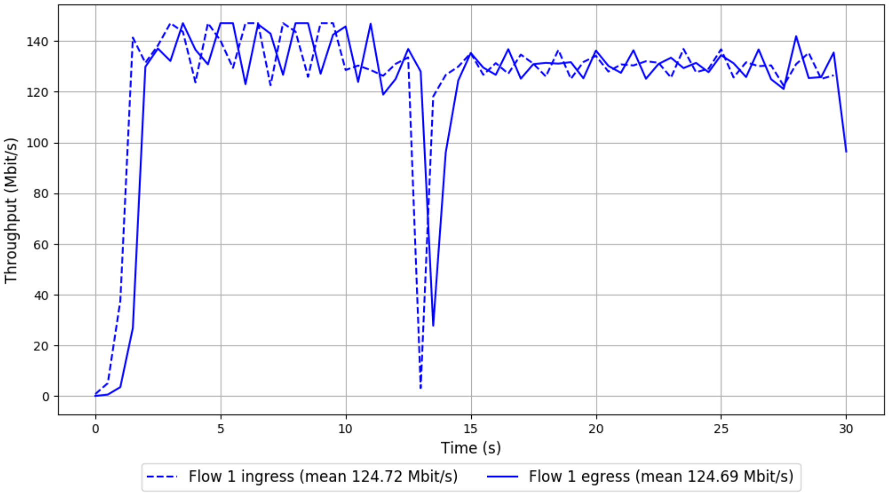

test from GCE Iowa to GCE Sydney, 10 runs of 30s each per scheme
(mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
800
700
600
500
400
300
200
100
0
240
220
200
180
160
140
120
100
80
FillP-Sheep
FillP
PCC-Allegro
PCC-Vivace
PCC-Expr
TaoVA-100x
Verus
Copa
Indigo
TCP BBR
TCP Cubic
QUIC Cubic
TCP Vegas
LEDBAT
WebRTC media

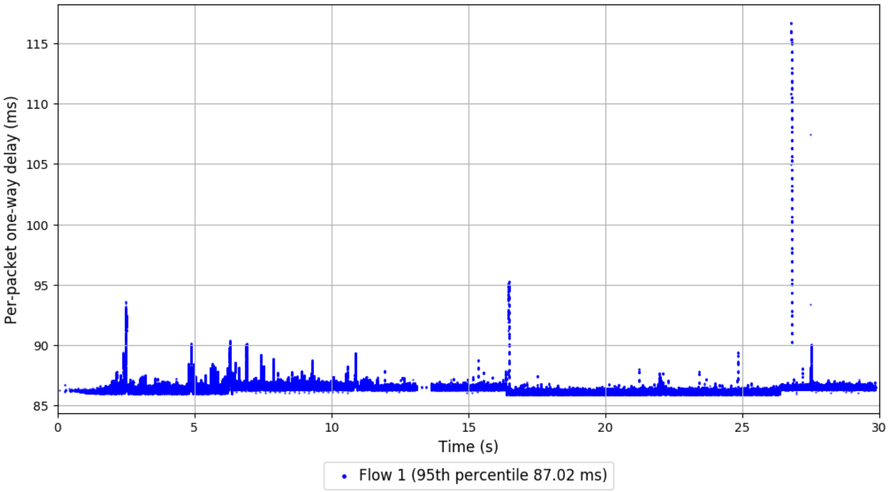

test from GCE Iowa to GCE Sydney, 10 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
800
700
600
500
400
300
200
100
0
512
256
128
64
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
PCC-Vivace
SCReAM
TCP Vegas
TCP BBR
Verus
PCC-Allegro
PCC-Expr
WebRTC media
TaoVA-100x
LEDBAT

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	124.16	87.98	0.62
Copa	10	172.87	97.23	0.64
TCP Cubic	10	85.45	91.30	0.63
FillP	10	620.96	241.44	3.17
FillP-Sheep	10	763.72	169.31	1.70
Indigo	9	165.35	86.63	0.60
LEDBAT	10	10.60	87.90	1.25
PCC-Allegro	10	376.78	142.23	1.46
PCC-Expr	10	234.09	90.88	0.72
QUIC Cubic	9	53.44	86.38	0.83
SCReAM	10	0.22	86.48	0.56
Sprout	10	0.26	86.62	0.45
TaoVA-100x	10	209.89	87.00	0.63
TCP Vegas	10	50.34	88.77	0.63
Verus	10	216.00	150.26	0.69
PCC-Vivace	10	285.26	86.68	0.67
WebRTC media	9	1.86	86.55	0.64

```
Run 1: Statistics of TCP BBR

Start at: 2018-08-01 12:36:22
End at: 2018-08-01 12:36:52
Local clock offset: 0.039 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-08-01 16:09:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.69 Mbit/s
95th percentile per-packet one-way delay: 87.023 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 124.69 Mbit/s
95th percentile per-packet one-way delay: 87.023 ms
Loss rate: 0.66%
```

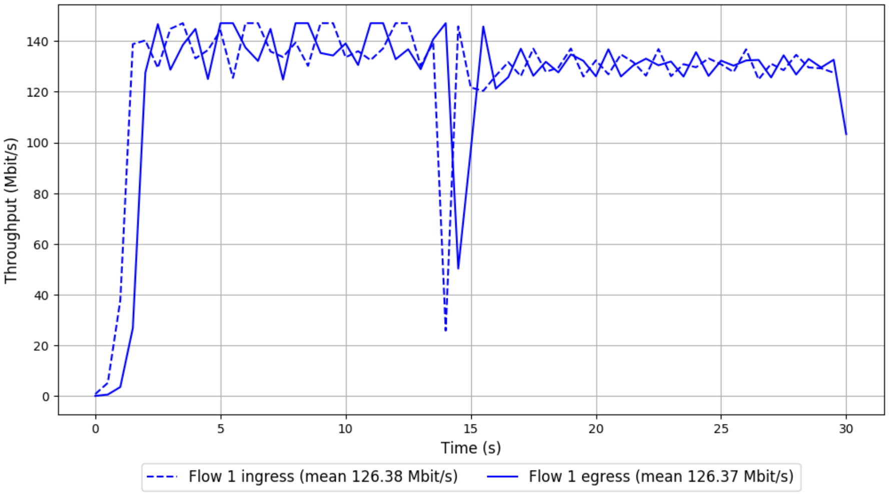
Run 1: Report of TCP BBR — Data Link

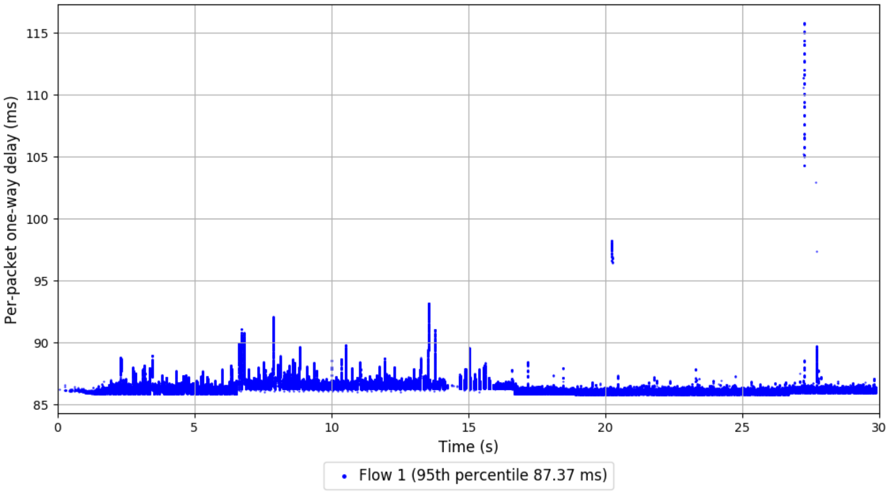




```
Run 2: Statistics of TCP BBR

Start at: 2018-08-01 12:58:42
End at: 2018-08-01 12:59:12
Local clock offset: 0.068 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.37 Mbit/s
95th percentile per-packet one-way delay: 87.369 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 126.37 Mbit/s
95th percentile per-packet one-way delay: 87.369 ms
Loss rate: 0.59%
```

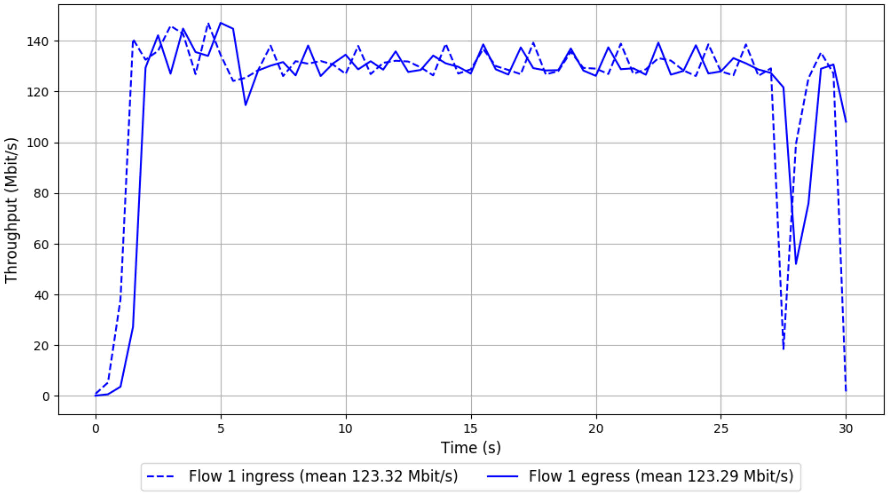
Run 2: Report of TCP BBR — Data Link

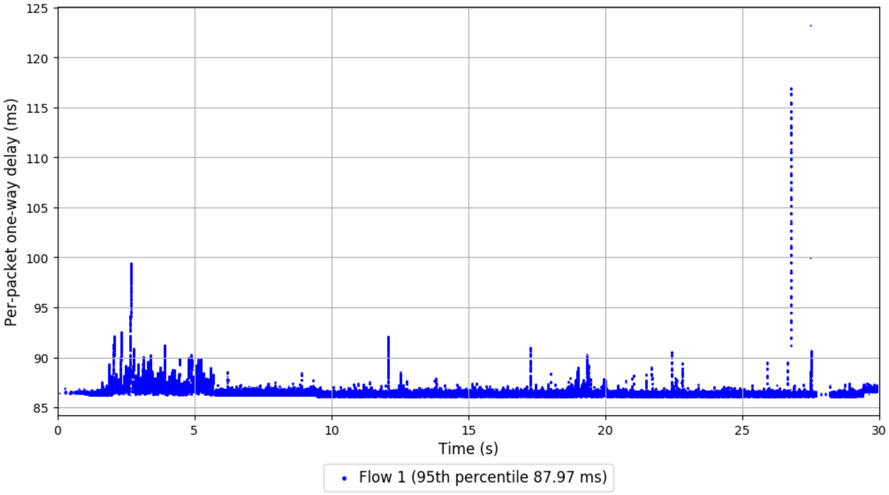




```
Run 3: Statistics of TCP BBR

Start at: 2018-08-01 13:20:39
End at: 2018-08-01 13:21:09
Local clock offset: 0.286 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.29 Mbit/s
95th percentile per-packet one-way delay: 87.973 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 123.29 Mbit/s
95th percentile per-packet one-way delay: 87.973 ms
Loss rate: 0.60%
```

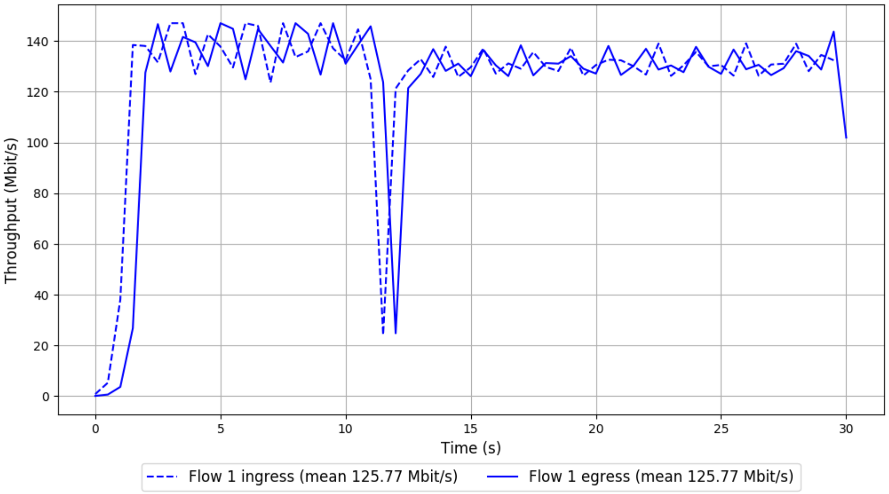
Run 3: Report of TCP BBR — Data Link

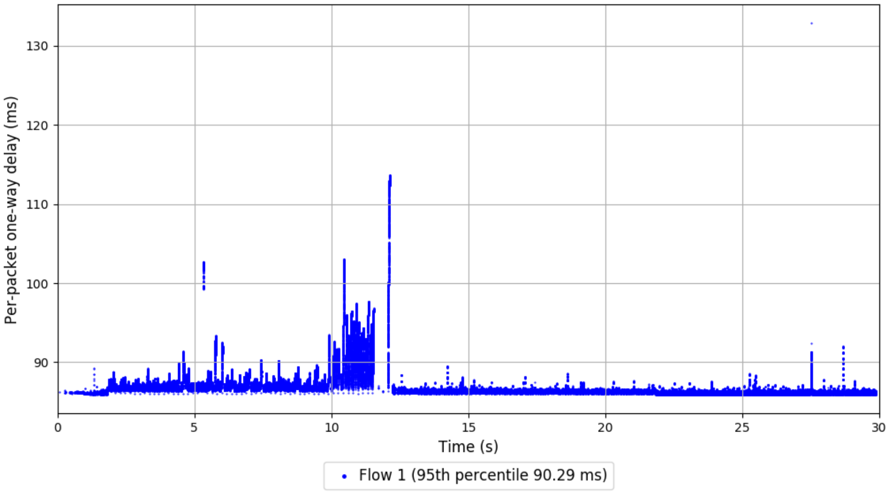




```
Run 4: Statistics of TCP BBR

Start at: 2018-08-01 13:42:57
End at: 2018-08-01 13:43:27
Local clock offset: 0.09 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.77 Mbit/s
95th percentile per-packet one-way delay: 90.288 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 125.77 Mbit/s
95th percentile per-packet one-way delay: 90.288 ms
Loss rate: 0.64%
```

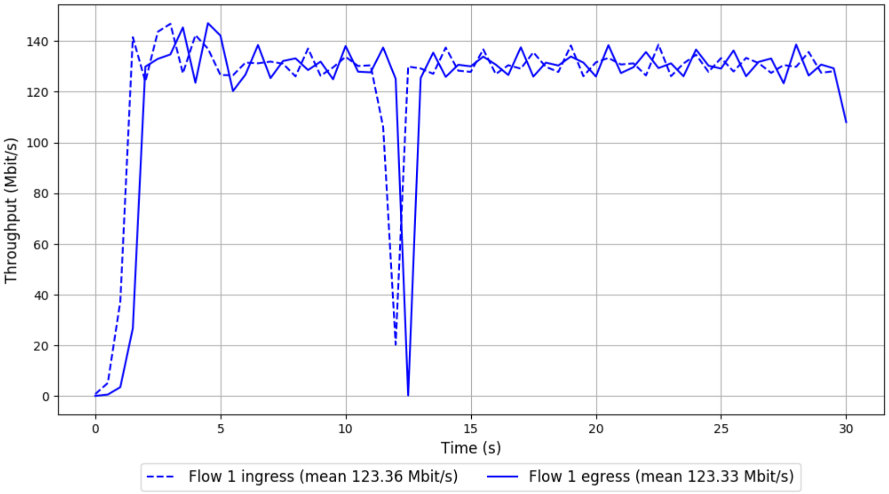
Run 4: Report of TCP BBR — Data Link

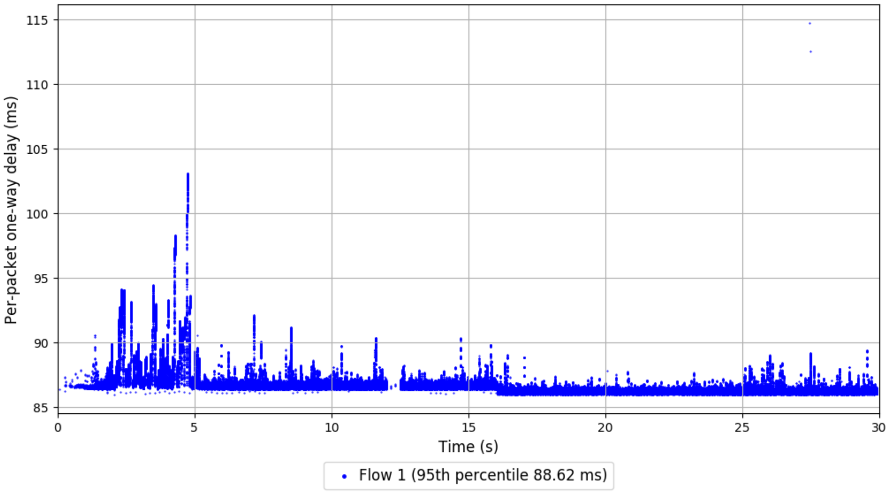




```
Run 5: Statistics of TCP BBR

Start at: 2018-08-01 14:05:23
End at: 2018-08-01 14:05:53
Local clock offset: 0.224 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.33 Mbit/s
95th percentile per-packet one-way delay: 88.621 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 123.33 Mbit/s
95th percentile per-packet one-way delay: 88.621 ms
Loss rate: 0.60%
```

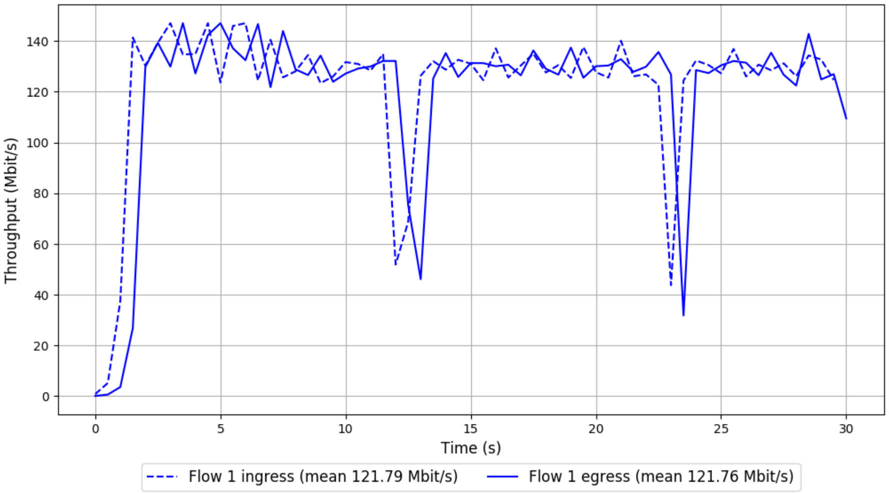
Run 5: Report of TCP BBR — Data Link

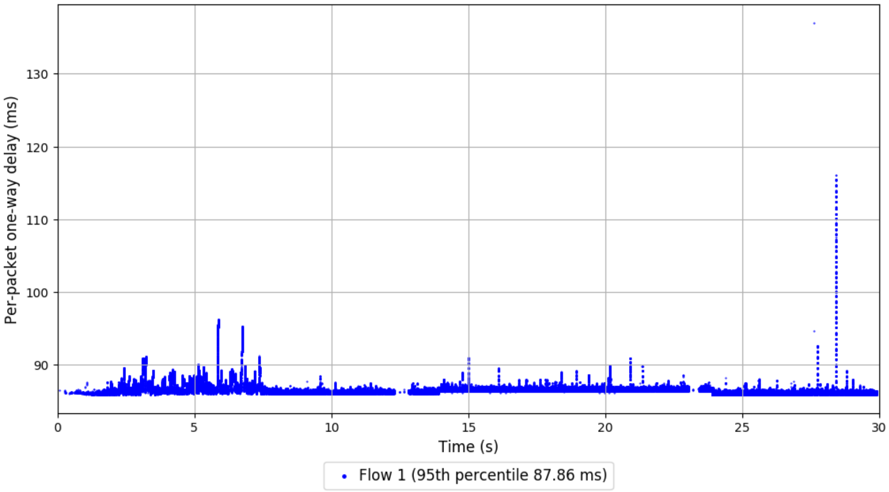




```
Run 6: Statistics of TCP BBR

Start at: 2018-08-01 14:27:35
End at: 2018-08-01 14:28:05
Local clock offset: 0.118 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.76 Mbit/s
95th percentile per-packet one-way delay: 87.861 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 121.76 Mbit/s
95th percentile per-packet one-way delay: 87.861 ms
Loss rate: 0.60%
```

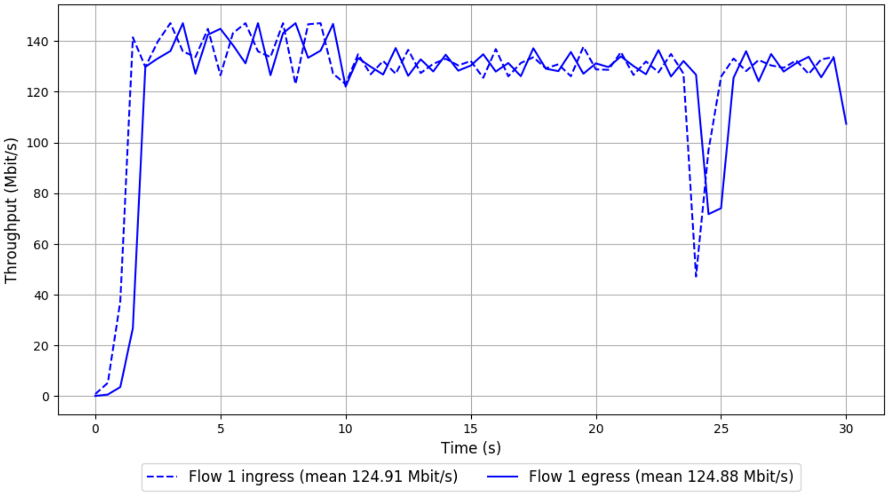
Run 6: Report of TCP BBR — Data Link

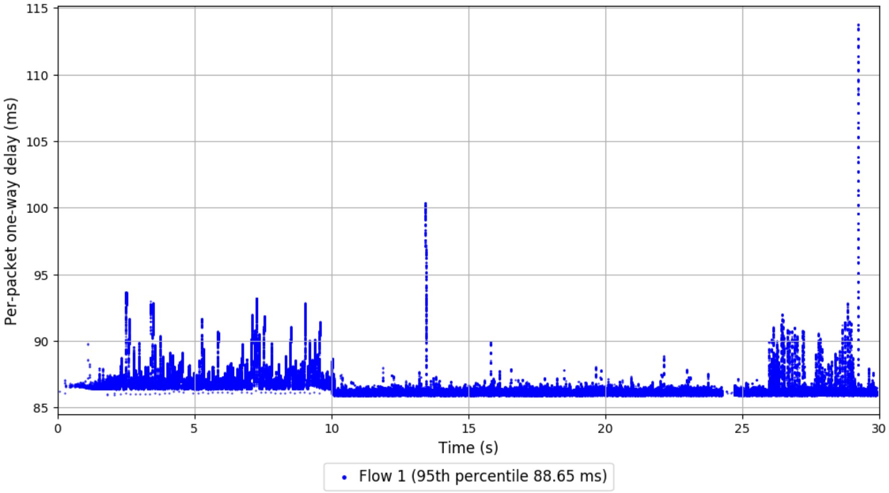




```
Run 7: Statistics of TCP BBR

Start at: 2018-08-01 14:49:49
End at: 2018-08-01 14:50:19
Local clock offset: 0.084 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.88 Mbit/s
95th percentile per-packet one-way delay: 88.652 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 124.88 Mbit/s
95th percentile per-packet one-way delay: 88.652 ms
Loss rate: 0.64%
```

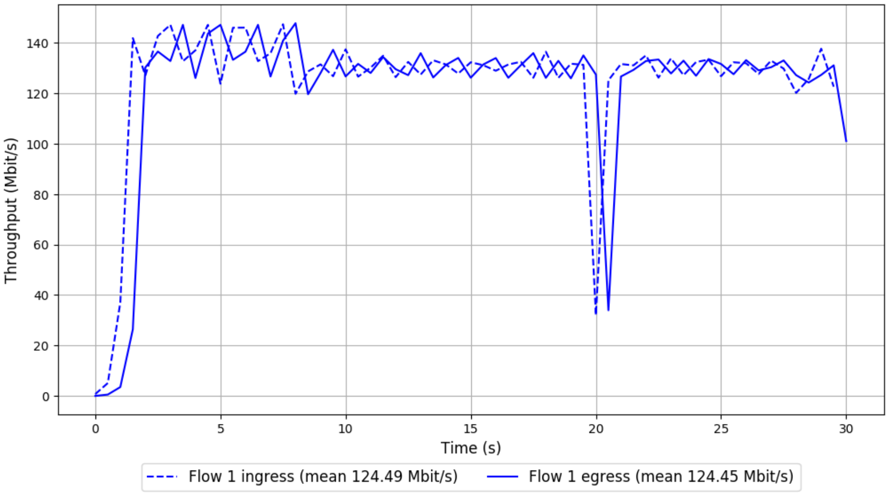
Run 7: Report of TCP BBR — Data Link

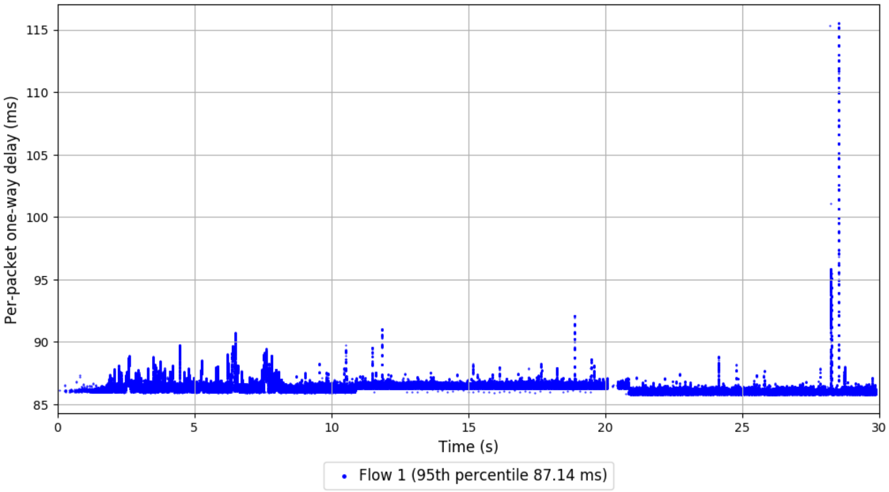




```
Run 8: Statistics of TCP BBR

Start at: 2018-08-01 15:11:58
End at: 2018-08-01 15:12:28
Local clock offset: 0.055 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-01 16:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.45 Mbit/s
95th percentile per-packet one-way delay: 87.140 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 124.45 Mbit/s
95th percentile per-packet one-way delay: 87.140 ms
Loss rate: 0.63%
```

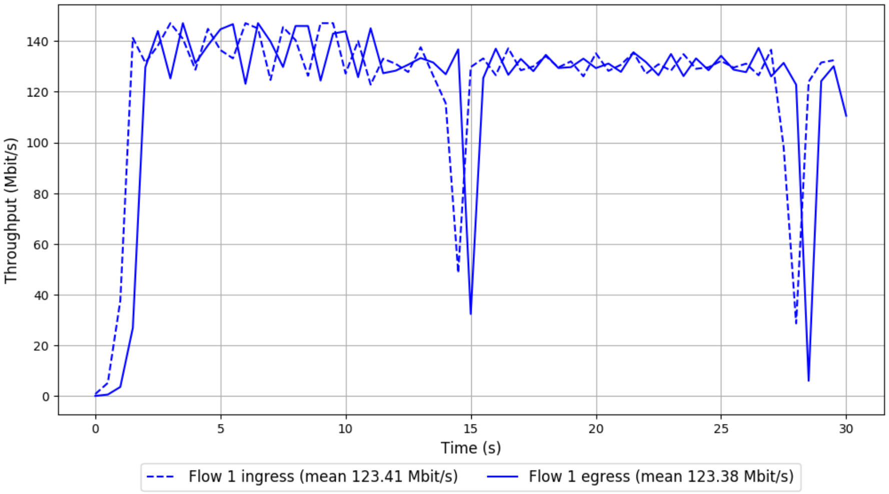
Run 8: Report of TCP BBR — Data Link

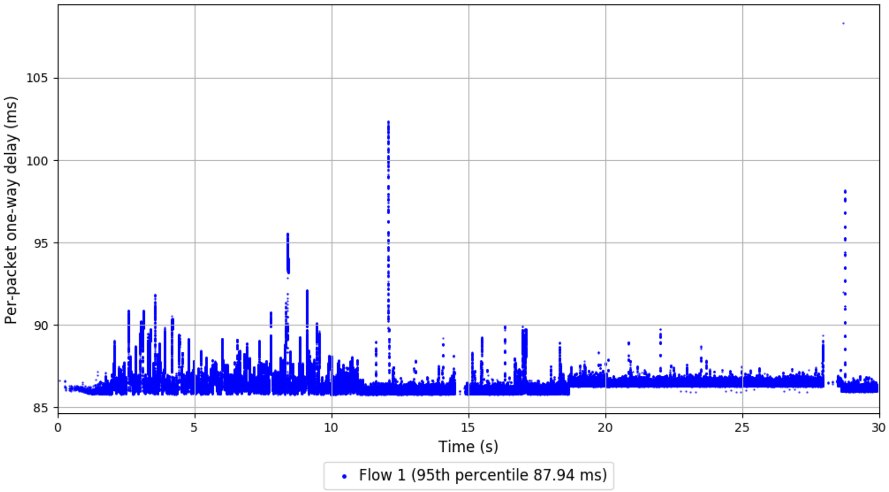




```
Run 9: Statistics of TCP BBR

Start at: 2018-08-01 15:33:50
End at: 2018-08-01 15:34:20
Local clock offset: 0.002 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-08-01 16:11:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.38 Mbit/s
95th percentile per-packet one-way delay: 87.942 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 123.38 Mbit/s
95th percentile per-packet one-way delay: 87.942 ms
Loss rate: 0.62%
```

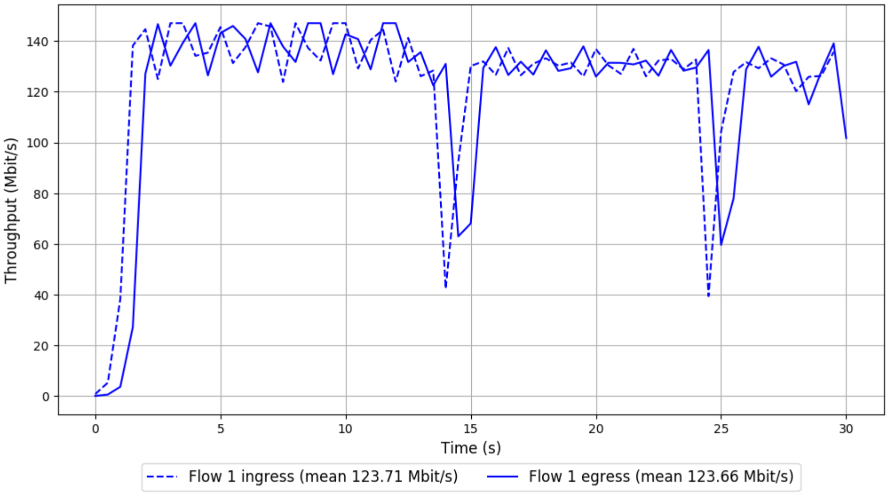
Run 9: Report of TCP BBR — Data Link

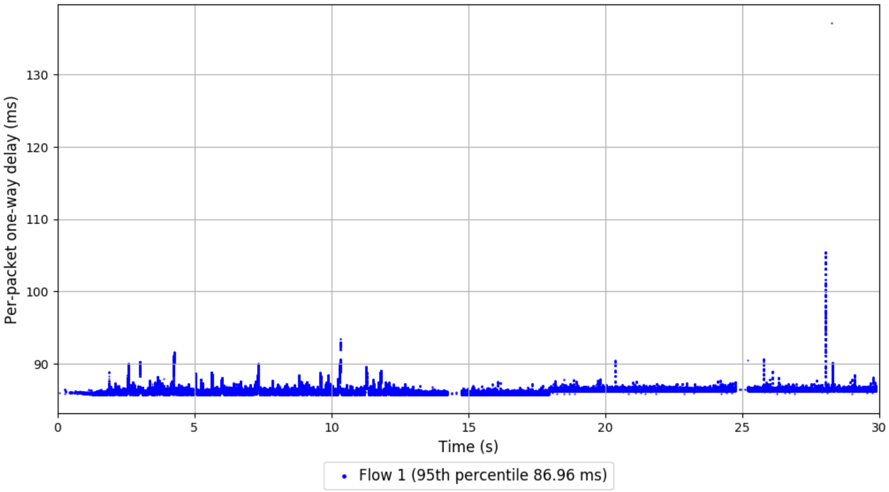




```
Run 10: Statistics of TCP BBR

Start at: 2018-08-01 15:56:11
End at: 2018-08-01 15:56:41
Local clock offset: -0.111 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-08-01 16:11:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.66 Mbit/s
95th percentile per-packet one-way delay: 86.964 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 123.66 Mbit/s
95th percentile per-packet one-way delay: 86.964 ms
Loss rate: 0.66%
```

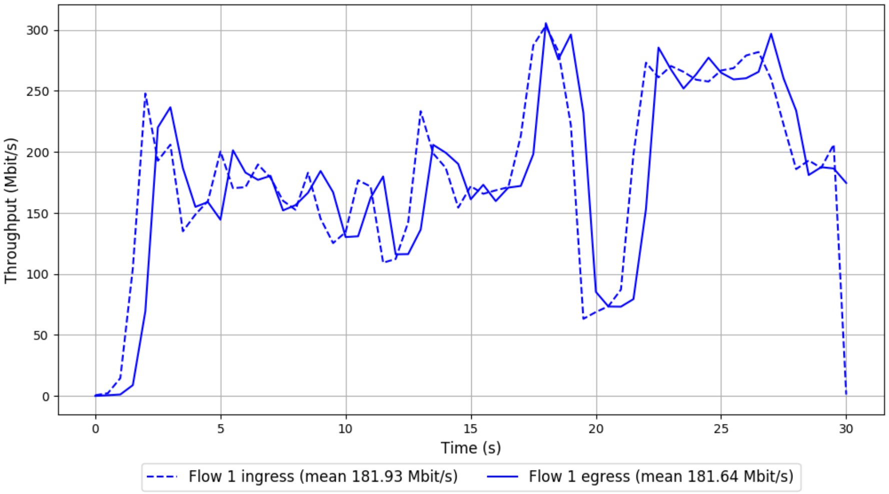
Run 10: Report of TCP BBR — Data Link

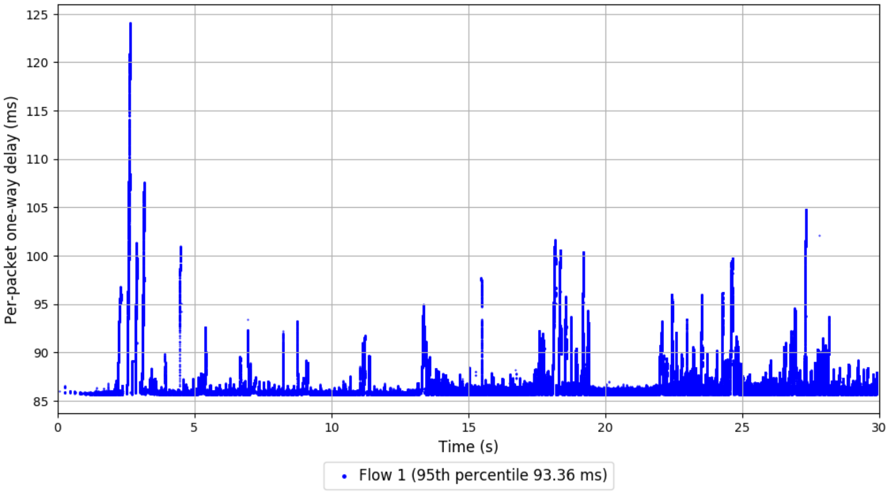




```
Run 1: Statistics of Copa

Start at: 2018-08-01 12:28:55
End at: 2018-08-01 12:29:25
Local clock offset: -0.188 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-08-01 16:15:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 181.64 Mbit/s
95th percentile per-packet one-way delay: 93.356 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 181.64 Mbit/s
95th percentile per-packet one-way delay: 93.356 ms
Loss rate: 0.73%
```

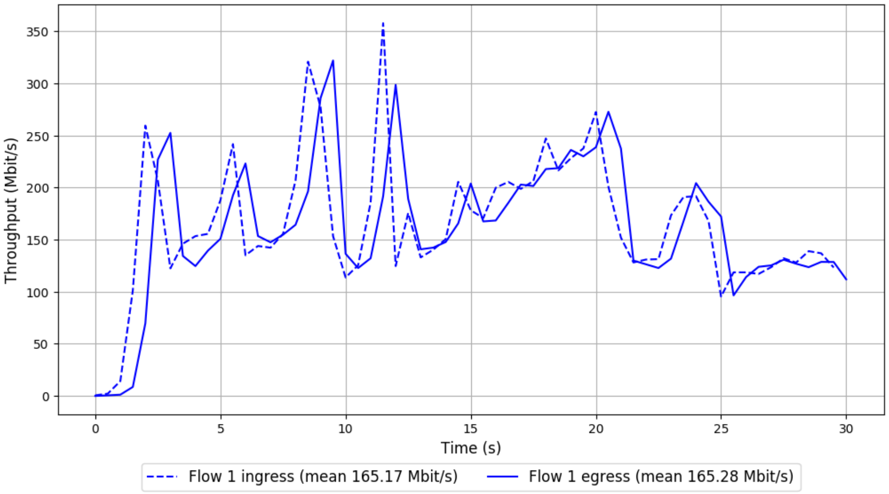
Run 1: Report of Copa — Data Link

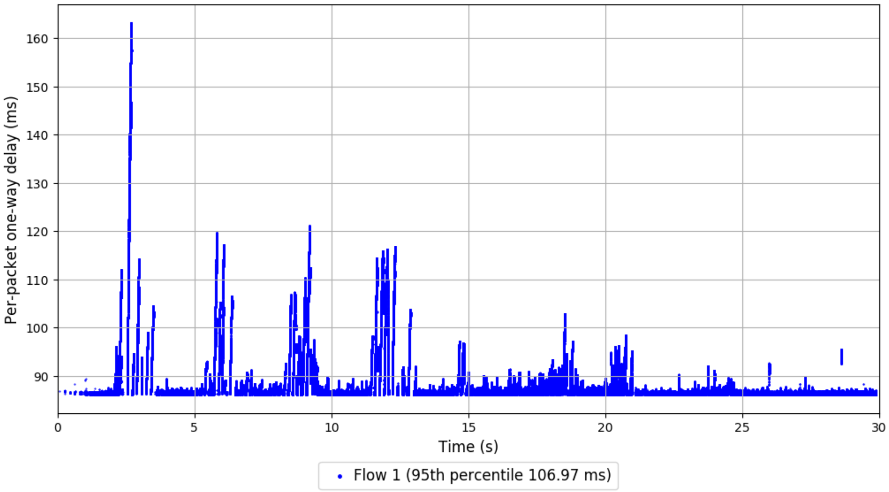




```
Run 2: Statistics of Copa

Start at: 2018-08-01 12:51:08
End at: 2018-08-01 12:51:38
Local clock offset: 0.281 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-08-01 16:15:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.28 Mbit/s
95th percentile per-packet one-way delay: 106.967 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 165.28 Mbit/s
95th percentile per-packet one-way delay: 106.967 ms
Loss rate: 0.51%
```

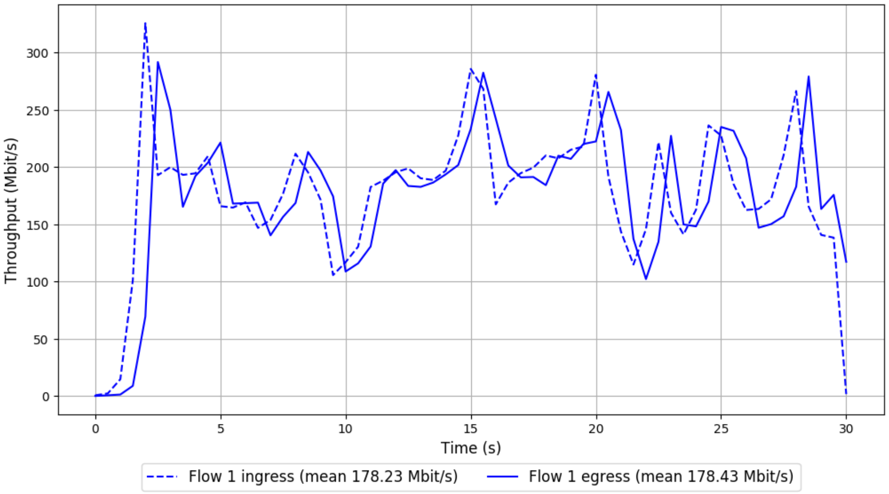
Run 2: Report of Copa — Data Link

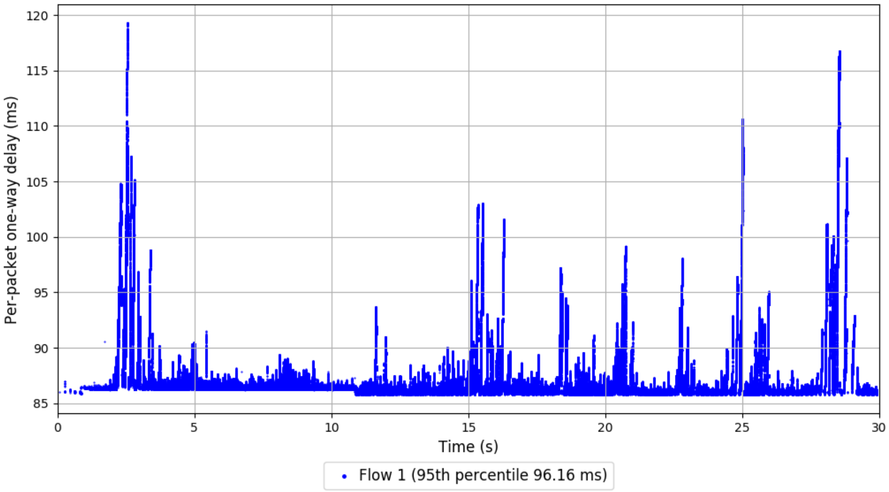




```
Run 3: Statistics of Copa

Start at: 2018-08-01 13:13:08
End at: 2018-08-01 13:13:38
Local clock offset: 0.037 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-08-01 16:15:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.43 Mbit/s
95th percentile per-packet one-way delay: 96.160 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 178.43 Mbit/s
95th percentile per-packet one-way delay: 96.160 ms
Loss rate: 0.47%
```

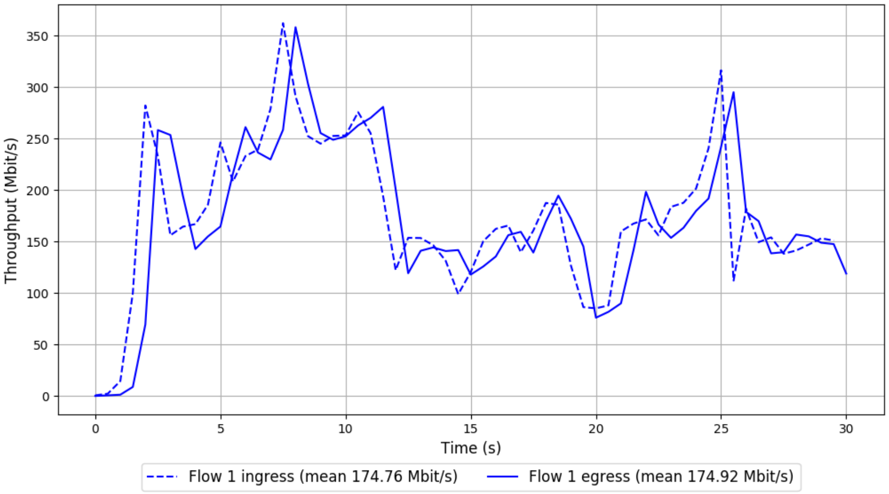
Run 3: Report of Copa — Data Link

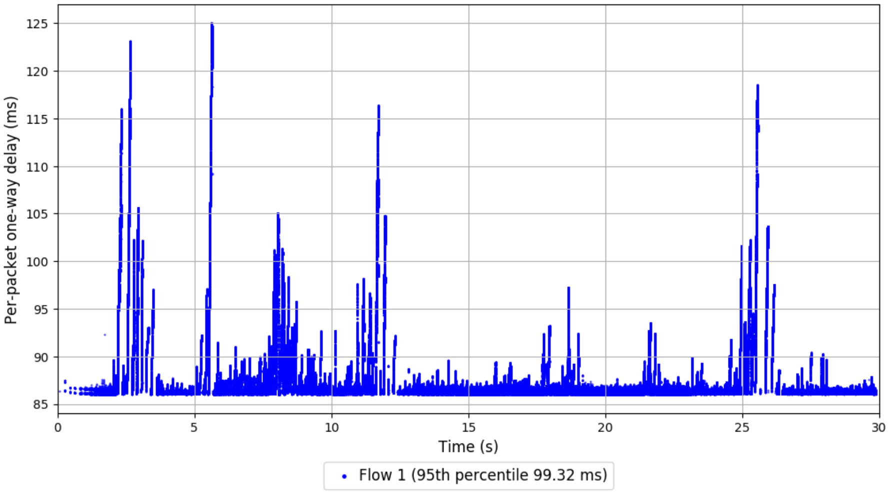




```
Run 4: Statistics of Copa

Start at: 2018-08-01 13:35:26
End at: 2018-08-01 13:35:56
Local clock offset: 0.201 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-08-01 16:15:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.92 Mbit/s
95th percentile per-packet one-way delay: 99.316 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 174.92 Mbit/s
95th percentile per-packet one-way delay: 99.316 ms
Loss rate: 0.48%
```

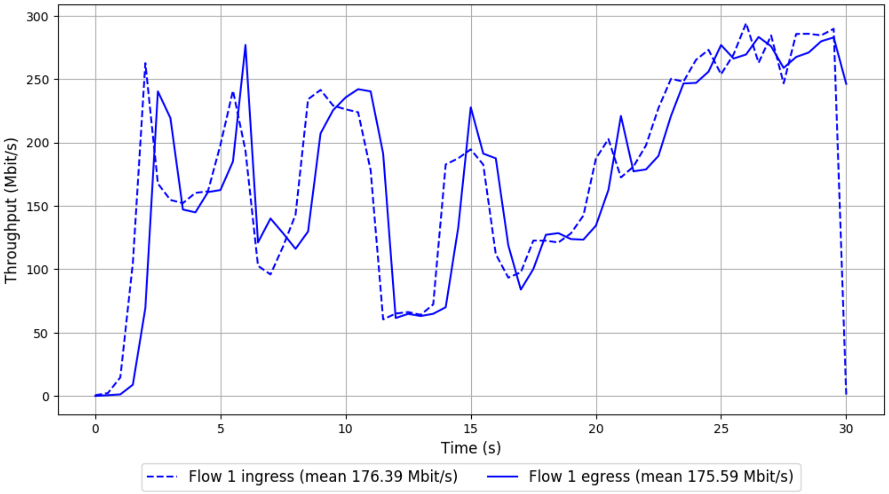
Run 4: Report of Copa — Data Link

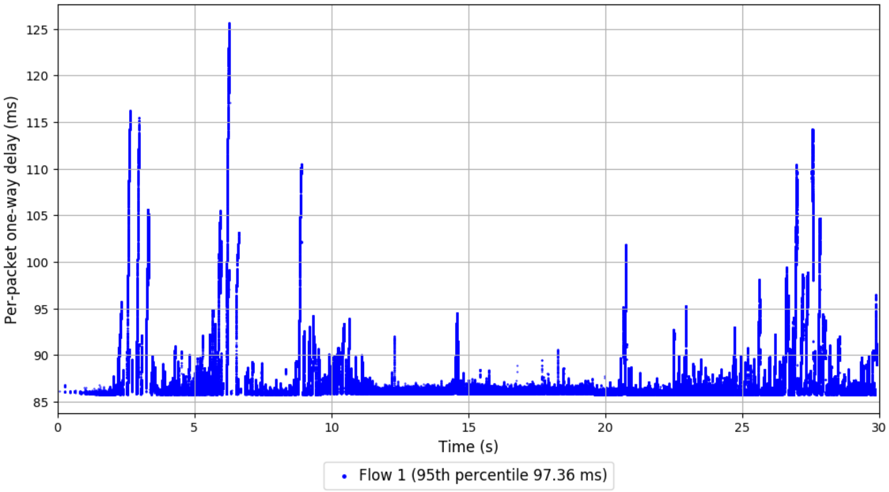




```
Run 5: Statistics of Copa

Start at: 2018-08-01 13:57:49
End at: 2018-08-01 13:58:19
Local clock offset: 0.061 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-08-01 16:15:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.59 Mbit/s
95th percentile per-packet one-way delay: 97.362 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 175.59 Mbit/s
95th percentile per-packet one-way delay: 97.362 ms
Loss rate: 1.02%
```

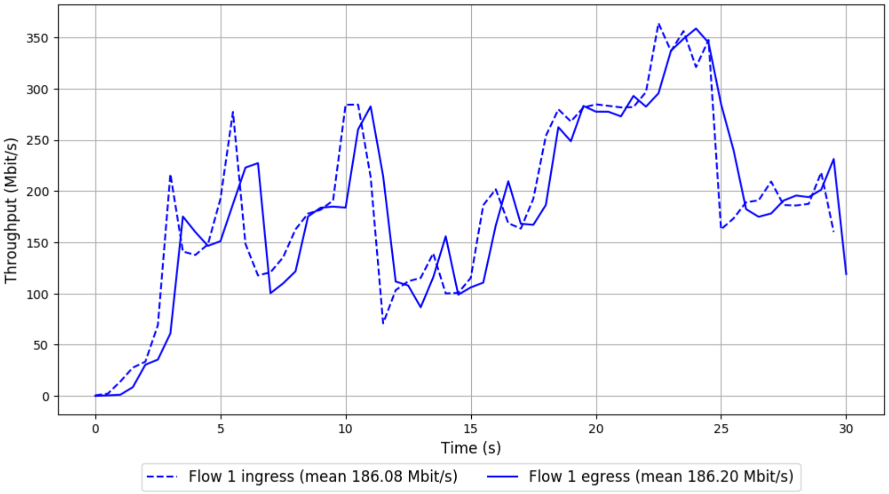
Run 5: Report of Copa — Data Link

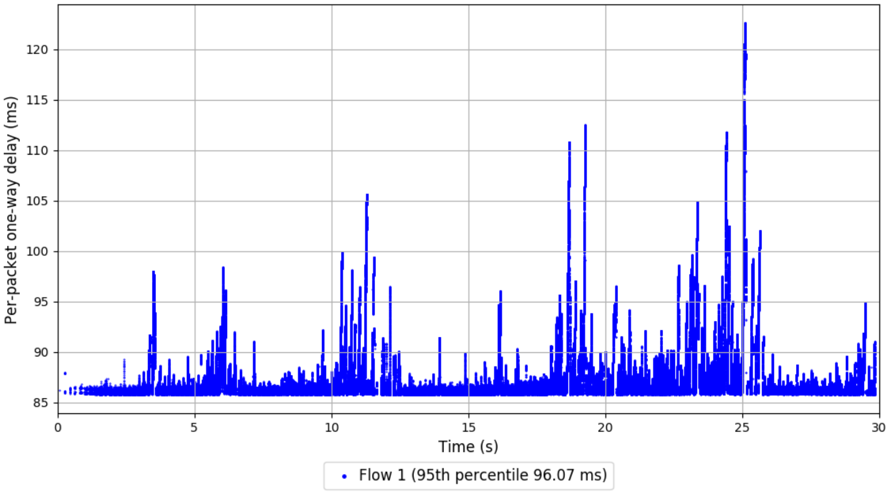




```
Run 6: Statistics of Copa

Start at: 2018-08-01 14:20:01
End at: 2018-08-01 14:20:31
Local clock offset: -0.025 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-08-01 16:15:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.20 Mbit/s
95th percentile per-packet one-way delay: 96.069 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 186.20 Mbit/s
95th percentile per-packet one-way delay: 96.069 ms
Loss rate: 0.51%
```

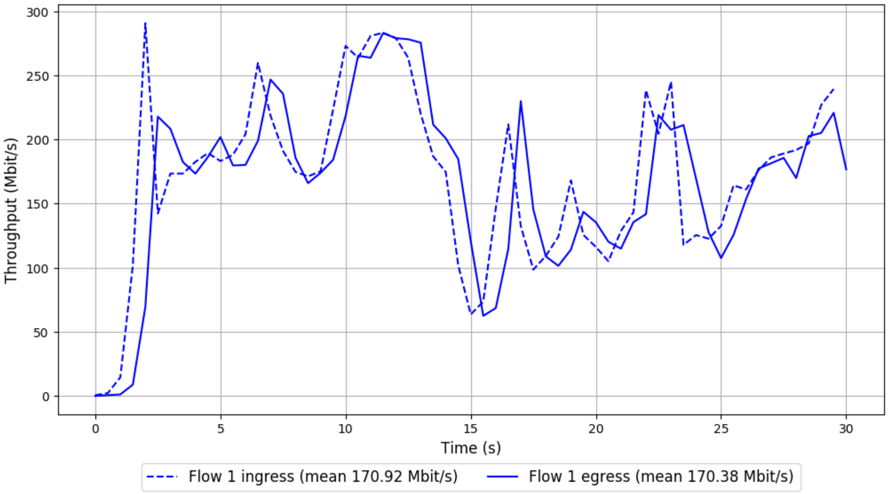
Run 6: Report of Copa — Data Link

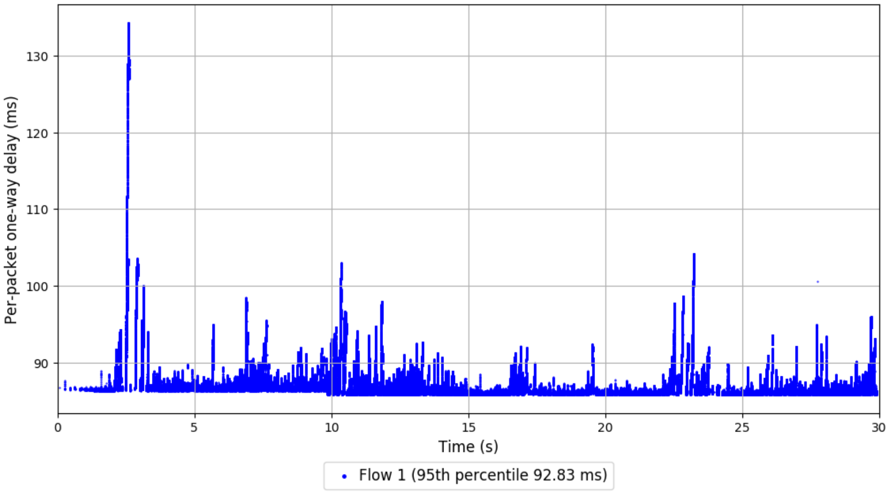




```
Run 7: Statistics of Copa

Start at: 2018-08-01 14:42:19
End at: 2018-08-01 14:42:49
Local clock offset: 0.039 ms
Remote clock offset: -0.15 ms

# Below is generated by plot.py at 2018-08-01 16:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 170.38 Mbit/s
95th percentile per-packet one-way delay: 92.829 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 170.38 Mbit/s
95th percentile per-packet one-way delay: 92.829 ms
Loss rate: 0.89%
```

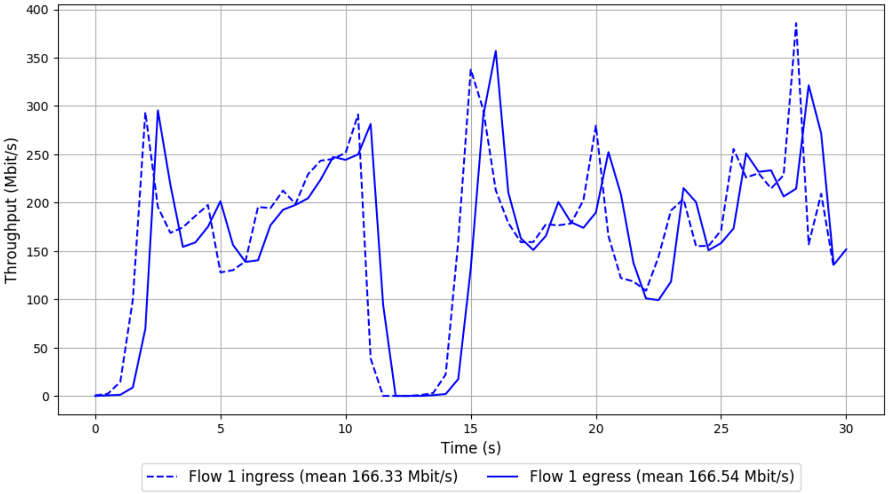
Run 7: Report of Copa — Data Link

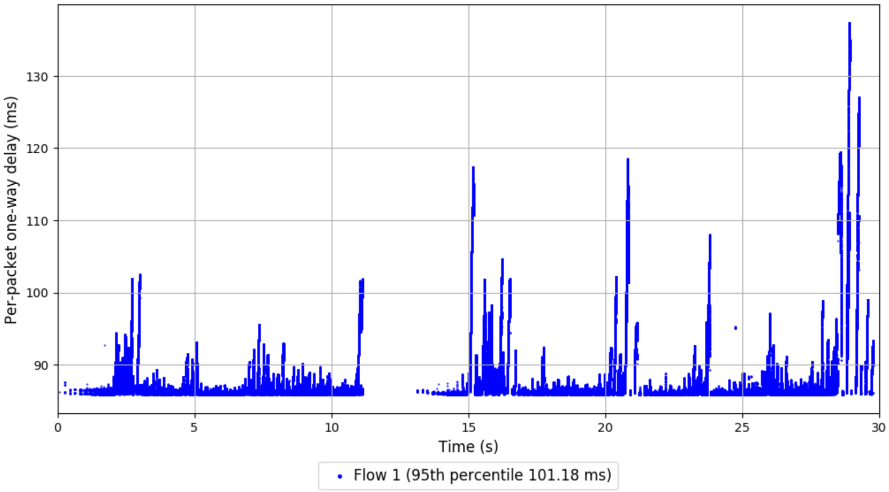




```
Run 8: Statistics of Copa

Start at: 2018-08-01 15:04:26
End at: 2018-08-01 15:04:56
Local clock offset: 0.077 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-08-01 16:17:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.54 Mbit/s
95th percentile per-packet one-way delay: 101.184 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 166.54 Mbit/s
95th percentile per-packet one-way delay: 101.184 ms
Loss rate: 0.55%
```

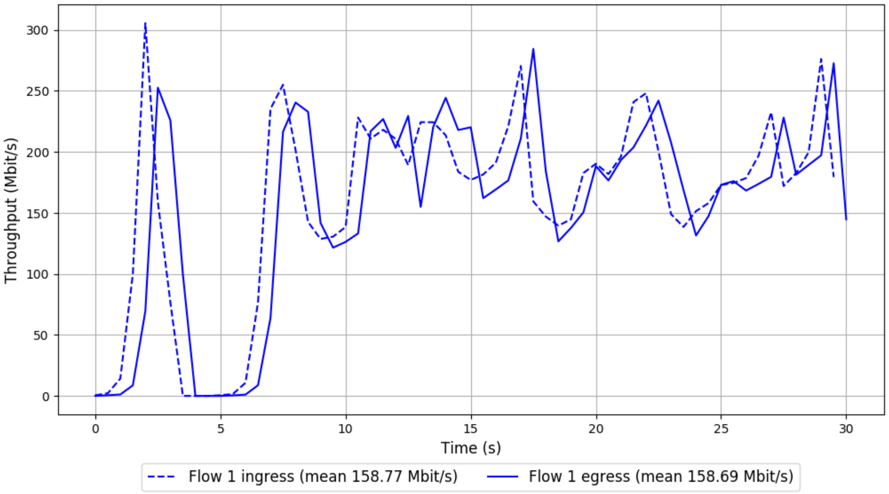
Run 8: Report of Copa — Data Link

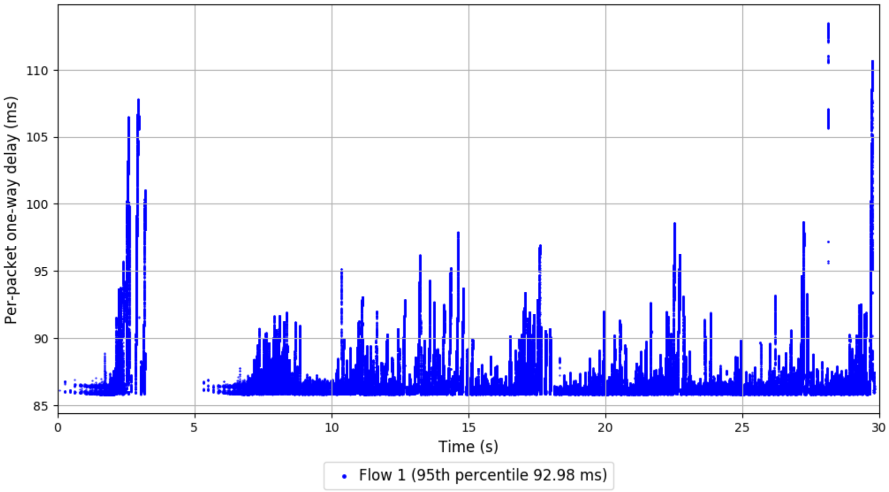




```
Run 9: Statistics of Copa

Start at: 2018-08-01 15:26:18
End at: 2018-08-01 15:26:48
Local clock offset: 0.074 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-01 16:20:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.69 Mbit/s
95th percentile per-packet one-way delay: 92.976 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 158.69 Mbit/s
95th percentile per-packet one-way delay: 92.976 ms
Loss rate: 0.74%
```

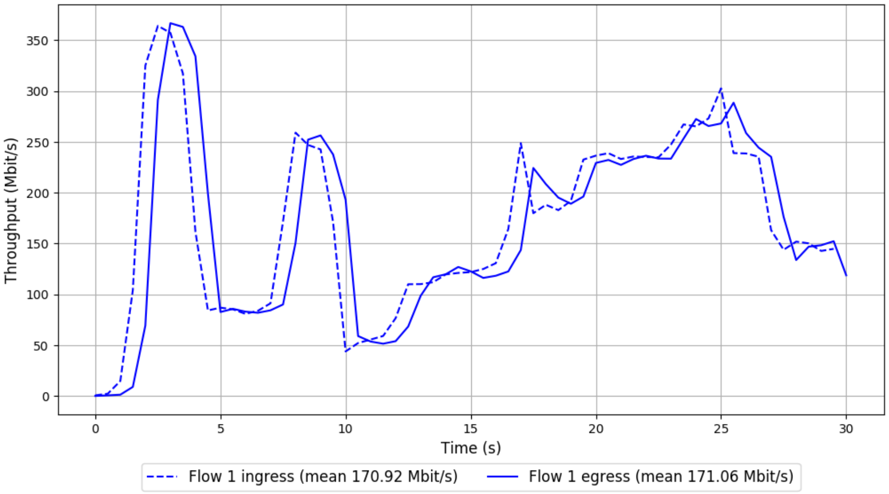
Run 9: Report of Copa — Data Link

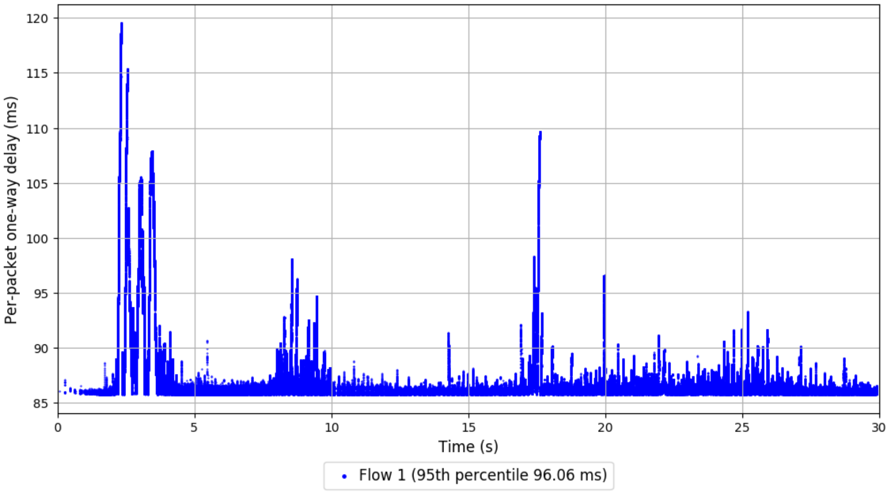




```
Run 10: Statistics of Copa

Start at: 2018-08-01 15:48:37
End at: 2018-08-01 15:49:07
Local clock offset: -0.022 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.06 Mbit/s
95th percentile per-packet one-way delay: 96.064 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 171.06 Mbit/s
95th percentile per-packet one-way delay: 96.064 ms
Loss rate: 0.50%
```

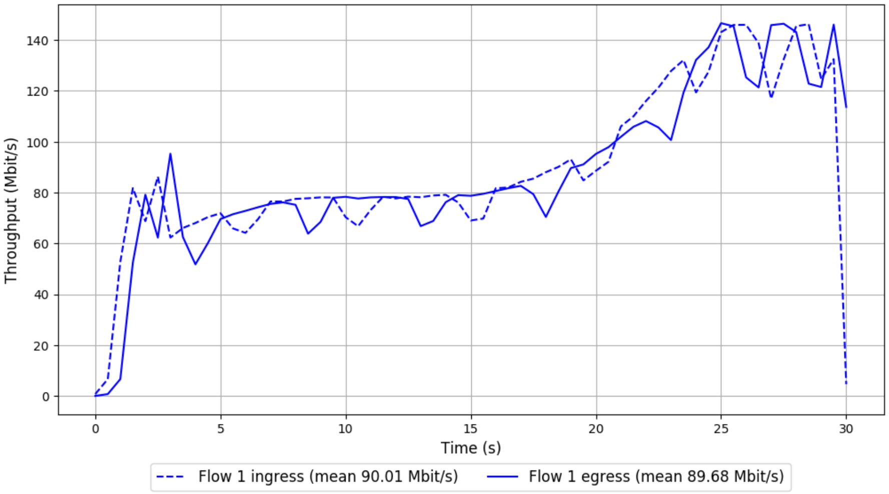
Run 10: Report of Copa — Data Link

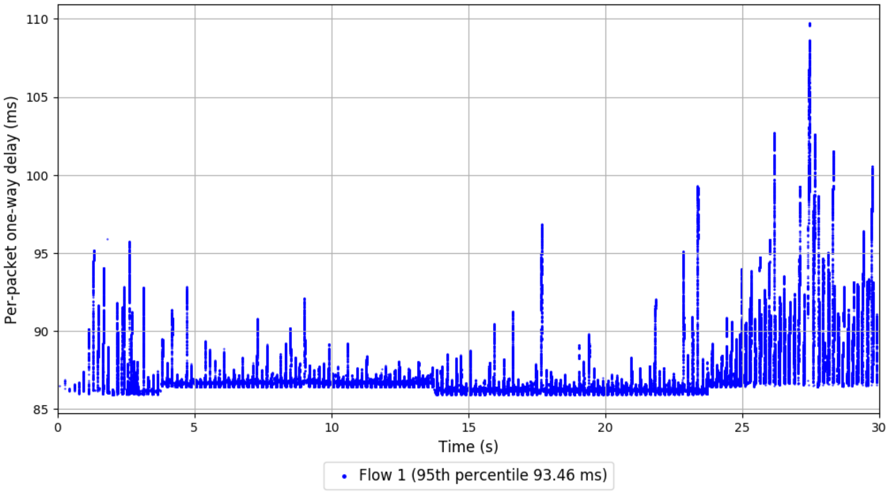




```
Run 1: Statistics of TCP Cubic

Start at: 2018-08-01 12:15:25
End at: 2018-08-01 12:15:55
Local clock offset: 0.103 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 93.463 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 93.463 ms
Loss rate: 0.94%
```

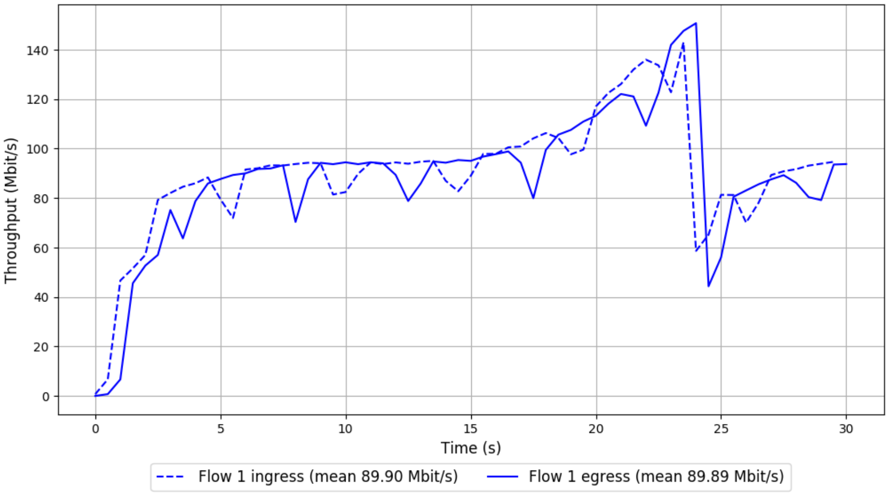
Run 1: Report of TCP Cubic — Data Link

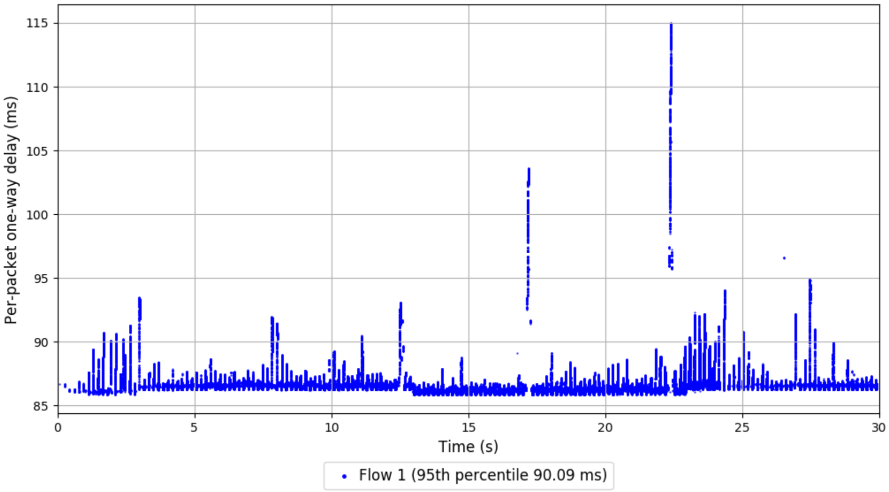




```
Run 2: Statistics of TCP Cubic

Start at: 2018-08-01 12:37:36
End at: 2018-08-01 12:38:06
Local clock offset: 0.005 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.89 Mbit/s
95th percentile per-packet one-way delay: 90.088 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 89.89 Mbit/s
95th percentile per-packet one-way delay: 90.088 ms
Loss rate: 0.59%
```

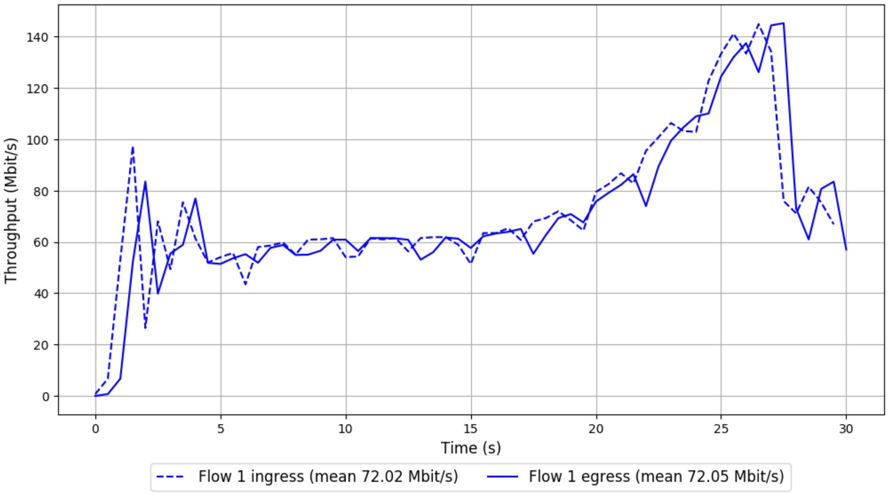
Run 2: Report of TCP Cubic — Data Link

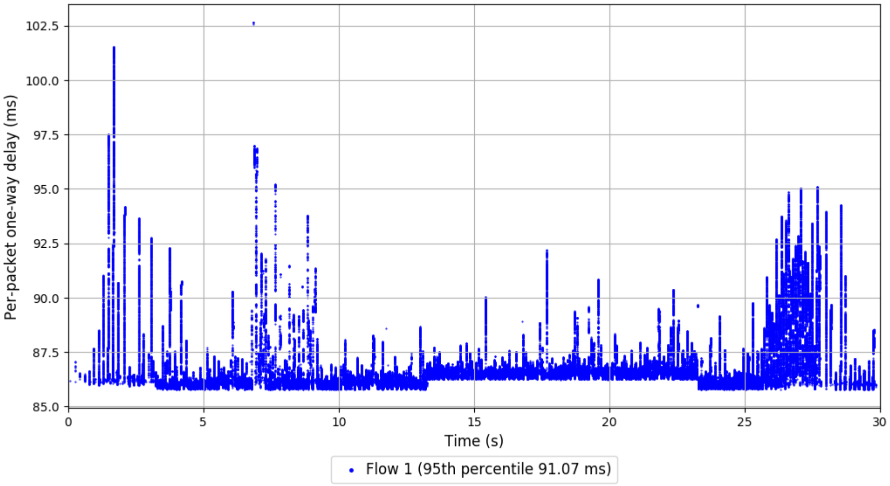




```
Run 3: Statistics of TCP Cubic

Start at: 2018-08-01 12:59:55
End at: 2018-08-01 13:00:25
Local clock offset: 0.071 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 91.074 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 91.074 ms
Loss rate: 0.67%
```

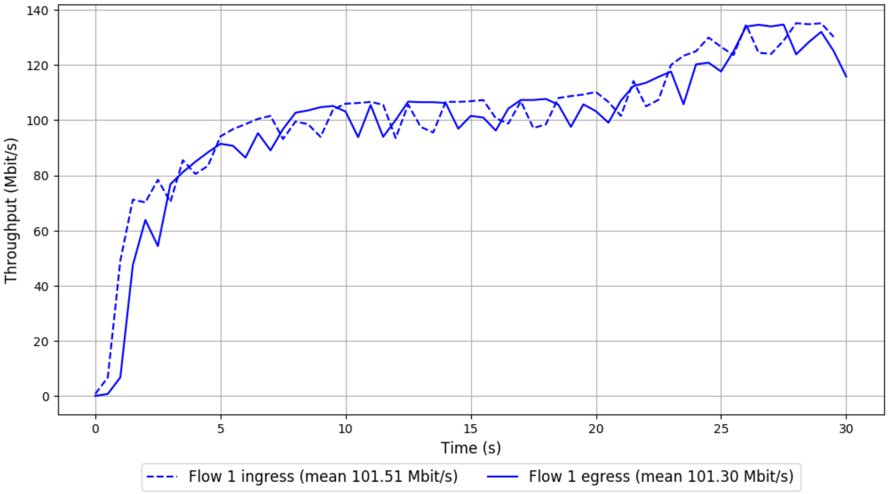
Run 3: Report of TCP Cubic — Data Link

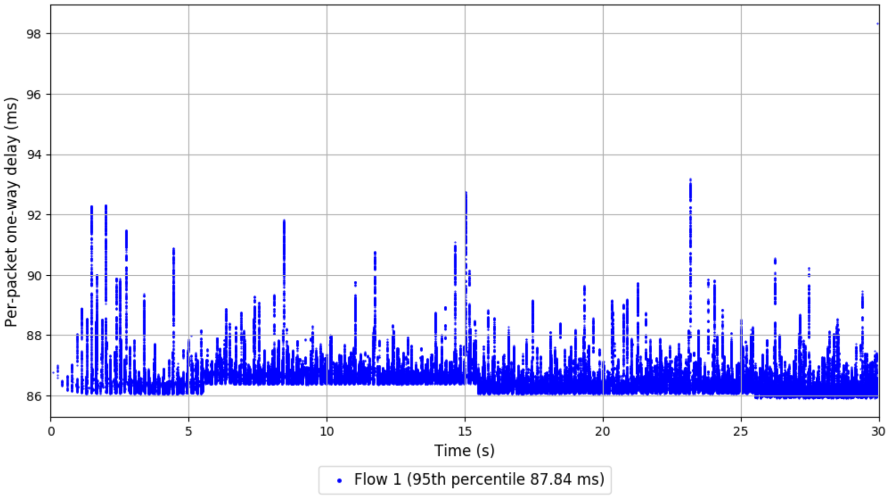




```
Run 4: Statistics of TCP Cubic

Start at: 2018-08-01 13:21:53
End at: 2018-08-01 13:22:23
Local clock offset: 0.105 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 101.30 Mbit/s
95th percentile per-packet one-way delay: 87.840 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 101.30 Mbit/s
95th percentile per-packet one-way delay: 87.840 ms
Loss rate: 0.74%
```

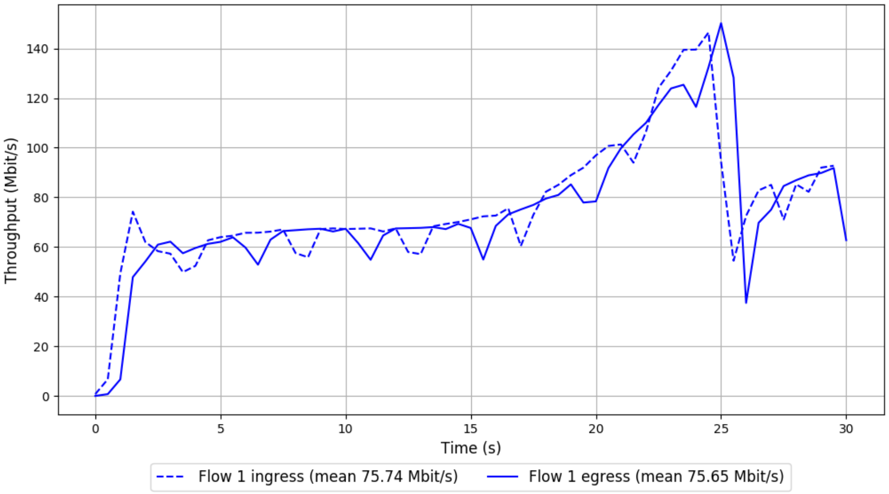
Run 4: Report of TCP Cubic — Data Link

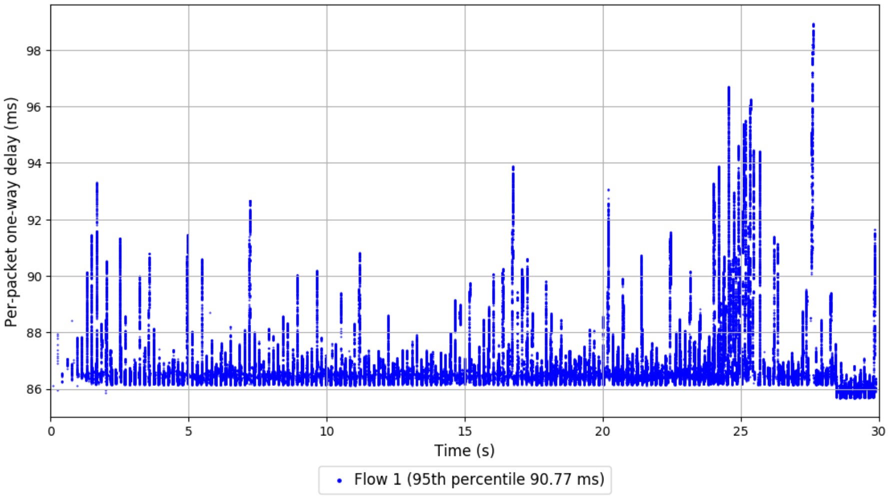




```
Run 5: Statistics of TCP Cubic

Start at: 2018-08-01 13:44:10
End at: 2018-08-01 13:44:40
Local clock offset: -0.135 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-08-01 16:20:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.65 Mbit/s
95th percentile per-packet one-way delay: 90.770 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 75.65 Mbit/s
95th percentile per-packet one-way delay: 90.770 ms
Loss rate: 0.69%
```

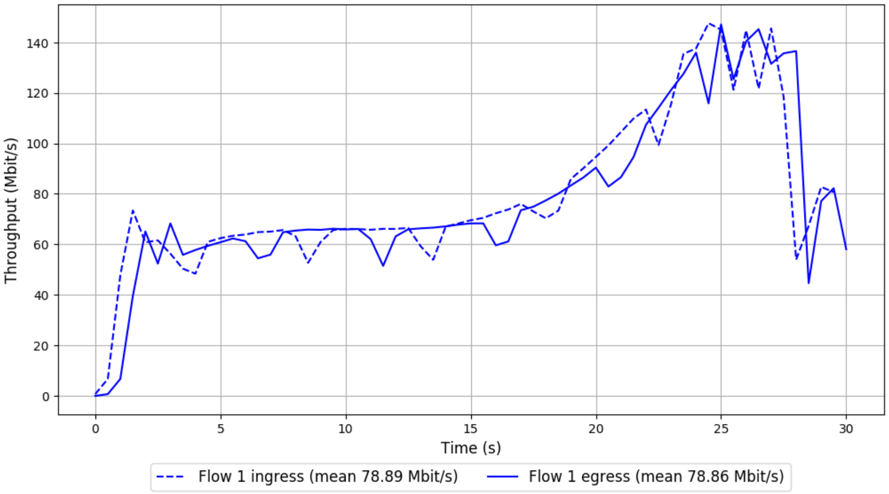
Run 5: Report of TCP Cubic — Data Link

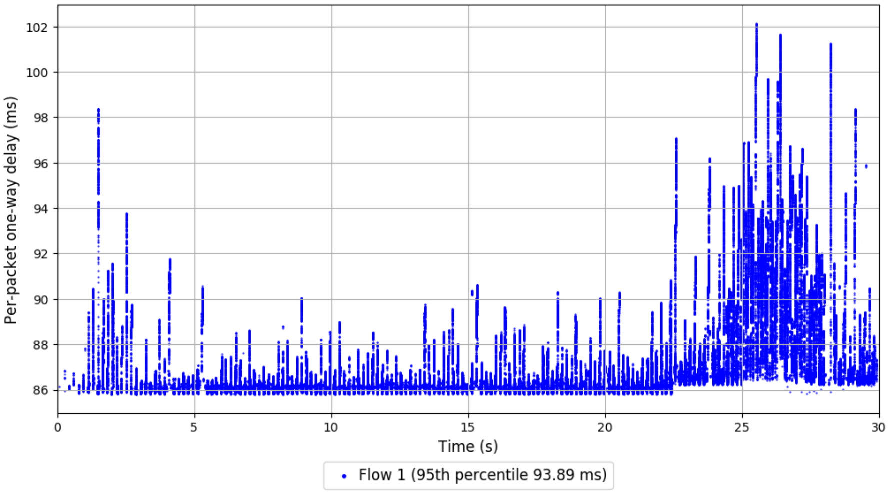




```
Run 6: Statistics of TCP Cubic

Start at: 2018-08-01 14:06:36
End at: 2018-08-01 14:07:06
Local clock offset: 0.035 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-08-01 16:20:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.86 Mbit/s
95th percentile per-packet one-way delay: 93.890 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 78.86 Mbit/s
95th percentile per-packet one-way delay: 93.890 ms
Loss rate: 0.60%
```

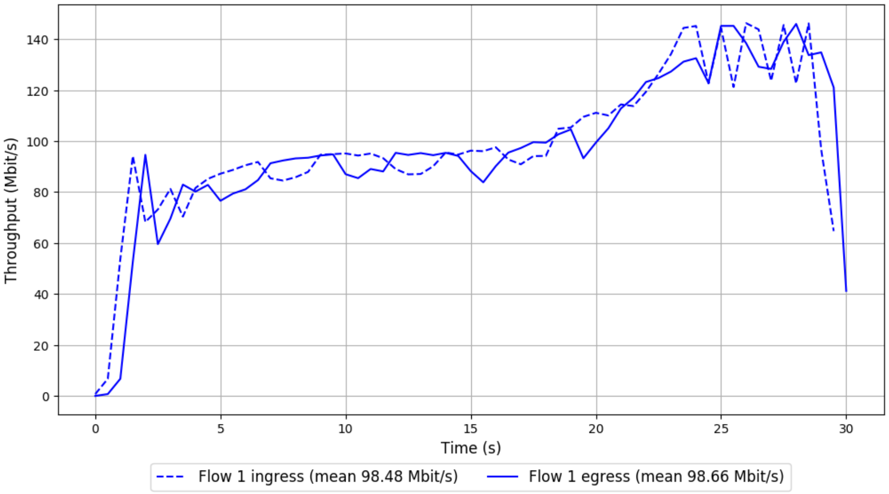
Run 6: Report of TCP Cubic — Data Link

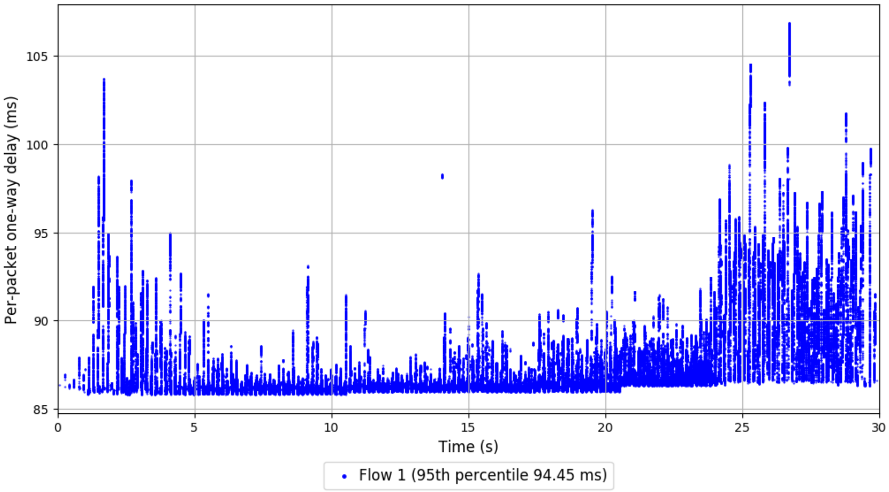




```
Run 7: Statistics of TCP Cubic

Start at: 2018-08-01 14:28:48
End at: 2018-08-01 14:29:18
Local clock offset: 0.057 ms
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-08-01 16:20:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 98.66 Mbit/s
95th percentile per-packet one-way delay: 94.450 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 98.66 Mbit/s
95th percentile per-packet one-way delay: 94.450 ms
Loss rate: 0.40%
```

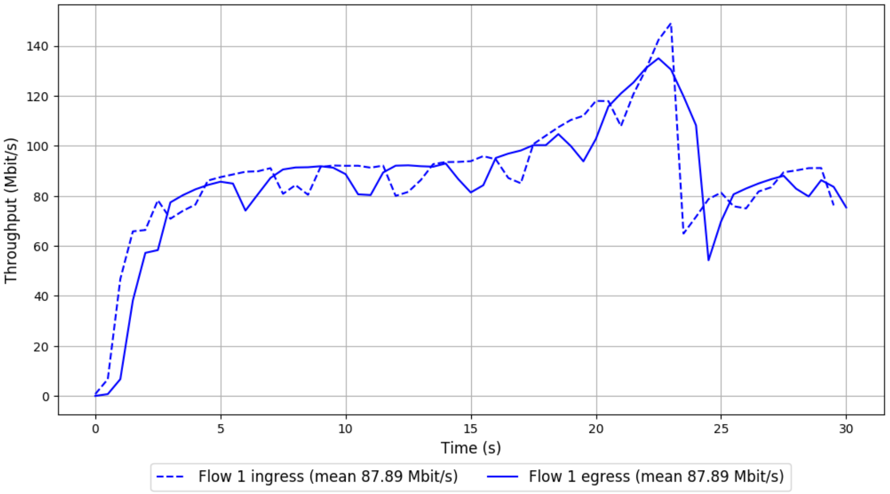
Run 7: Report of TCP Cubic — Data Link

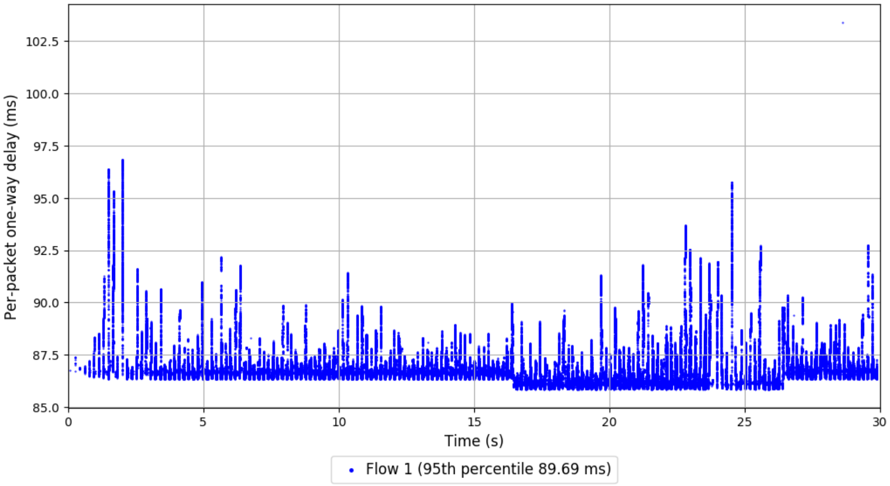




```
Run 8: Statistics of TCP Cubic

Start at: 2018-08-01 14:51:02
End at: 2018-08-01 14:51:32
Local clock offset: 0.031 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-08-01 16:20:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 89.690 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 89.690 ms
Loss rate: 0.58%
```

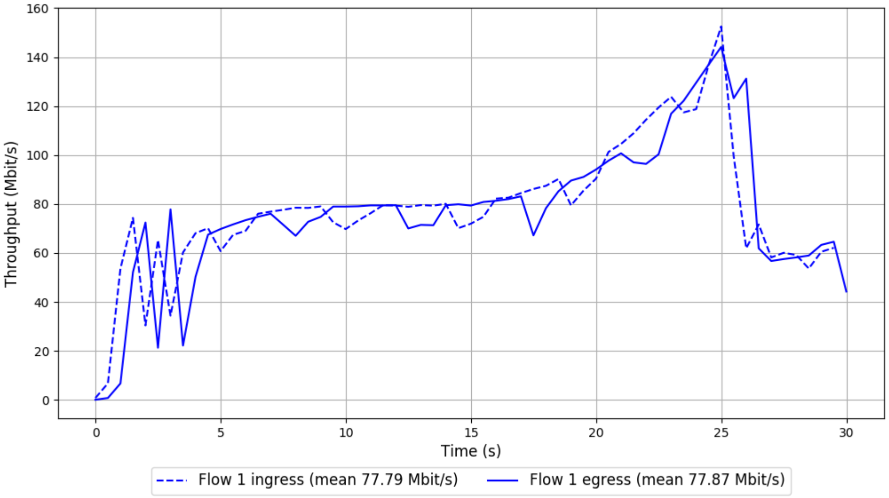
Run 8: Report of TCP Cubic — Data Link

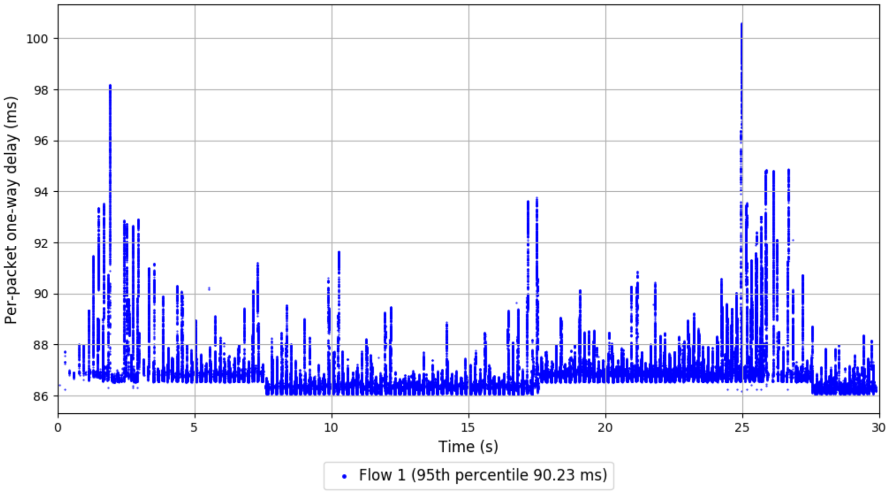




```
Run 9: Statistics of TCP Cubic

Start at: 2018-08-01 15:13:11
End at: 2018-08-01 15:13:41
Local clock offset: 0.298 ms
Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2018-08-01 16:20:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.87 Mbit/s
95th percentile per-packet one-way delay: 90.229 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 77.87 Mbit/s
95th percentile per-packet one-way delay: 90.229 ms
Loss rate: 0.47%
```

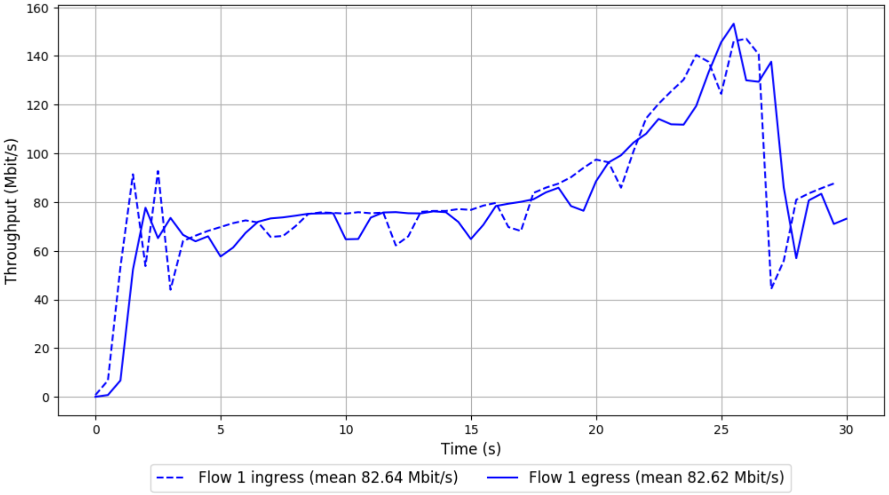
Run 9: Report of TCP Cubic — Data Link

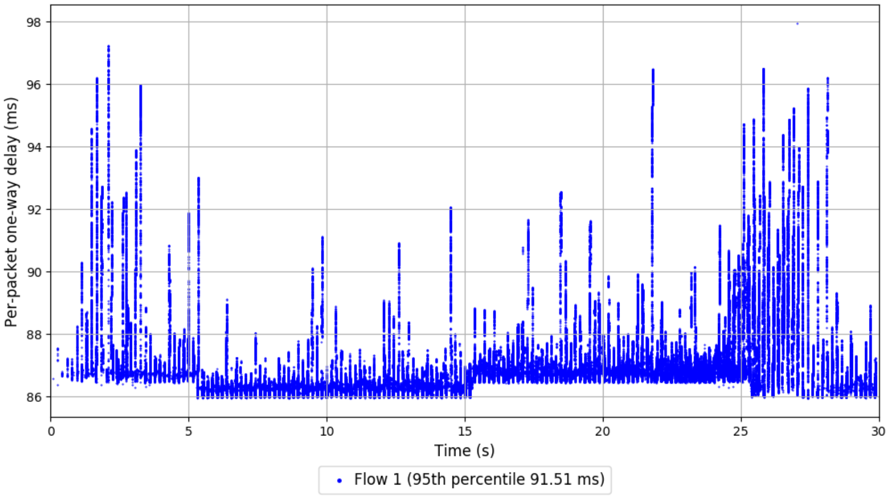




```
Run 10: Statistics of TCP Cubic

Start at: 2018-08-01 15:35:04
End at: 2018-08-01 15:35:34
Local clock offset: 0.179 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-08-01 16:20:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.62 Mbit/s
95th percentile per-packet one-way delay: 91.507 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 82.62 Mbit/s
95th percentile per-packet one-way delay: 91.507 ms
Loss rate: 0.60%
```

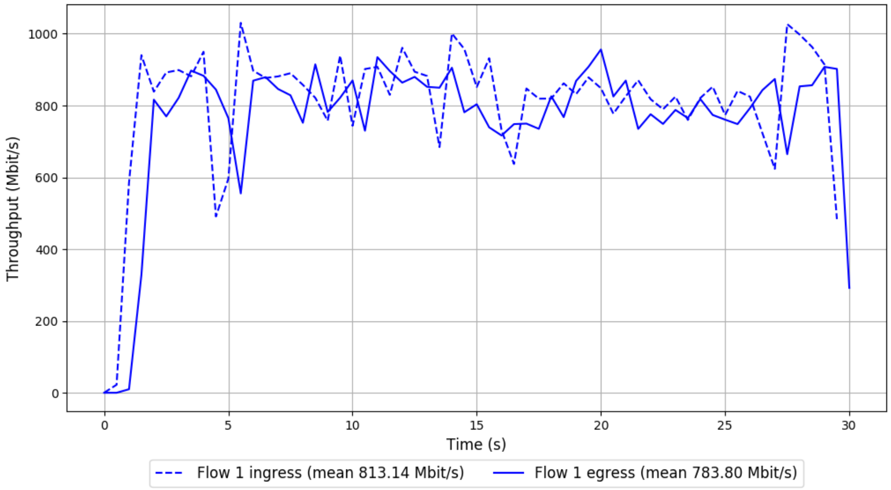
Run 10: Report of TCP Cubic — Data Link

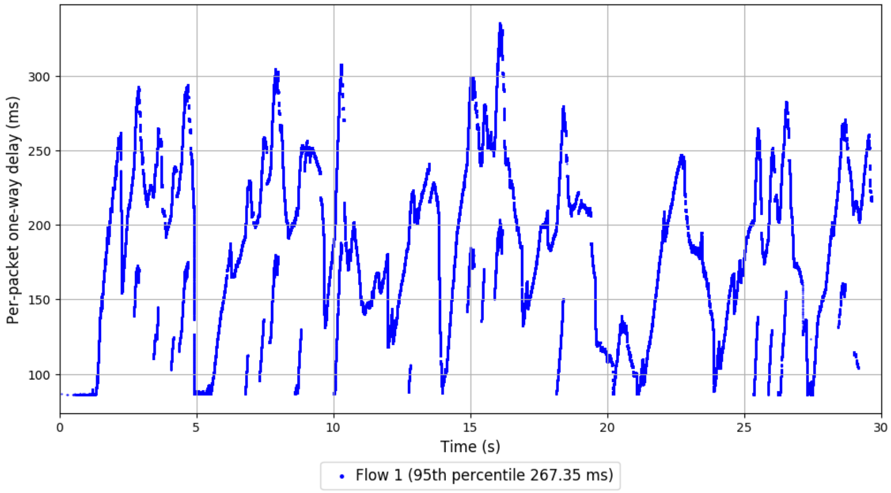




```
Run 1: Statistics of FillP

Start at: 2018-08-01 12:24:50
End at: 2018-08-01 12:25:20
Local clock offset: 0.111 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2018-08-01 16:35:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 783.80 Mbit/s
95th percentile per-packet one-way delay: 267.353 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 783.80 Mbit/s
95th percentile per-packet one-way delay: 267.353 ms
Loss rate: 4.17%
```

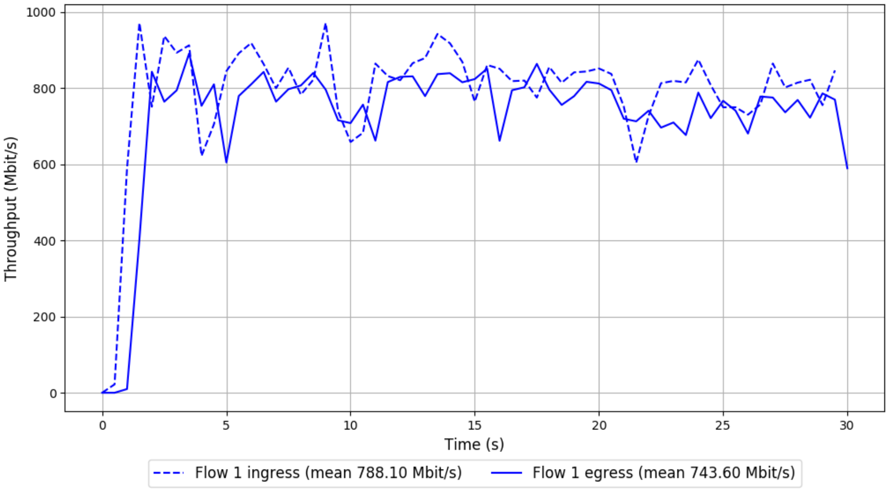
Run 1: Report of FillP — Data Link

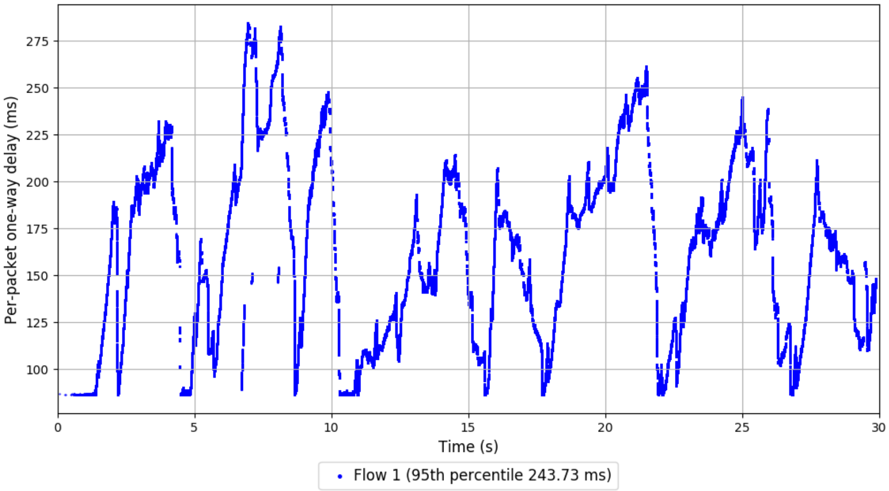




```
Run 2: Statistics of FillP

Start at: 2018-08-01 12:46:59
End at: 2018-08-01 12:47:29
Local clock offset: 0.154 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-08-01 16:35:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 743.60 Mbit/s
95th percentile per-packet one-way delay: 243.729 ms
Loss rate: 6.19%
-- Flow 1:
Average throughput: 743.60 Mbit/s
95th percentile per-packet one-way delay: 243.729 ms
Loss rate: 6.19%
```

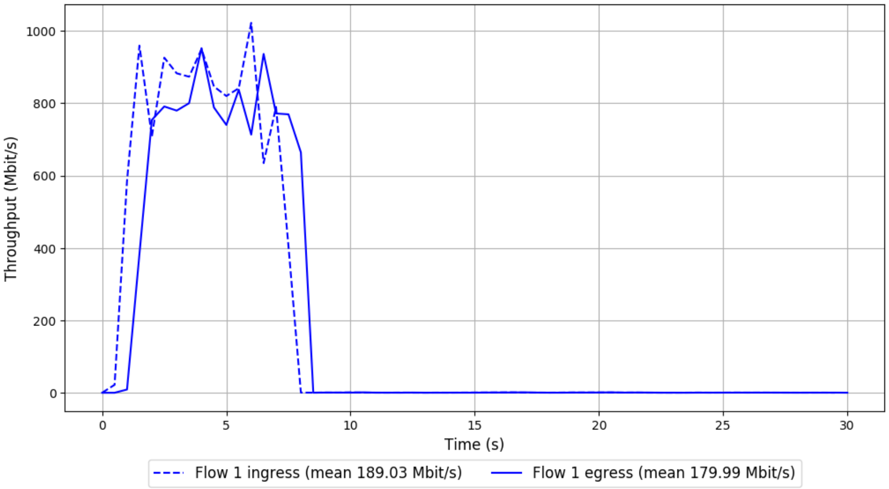
Run 2: Report of FillP — Data Link

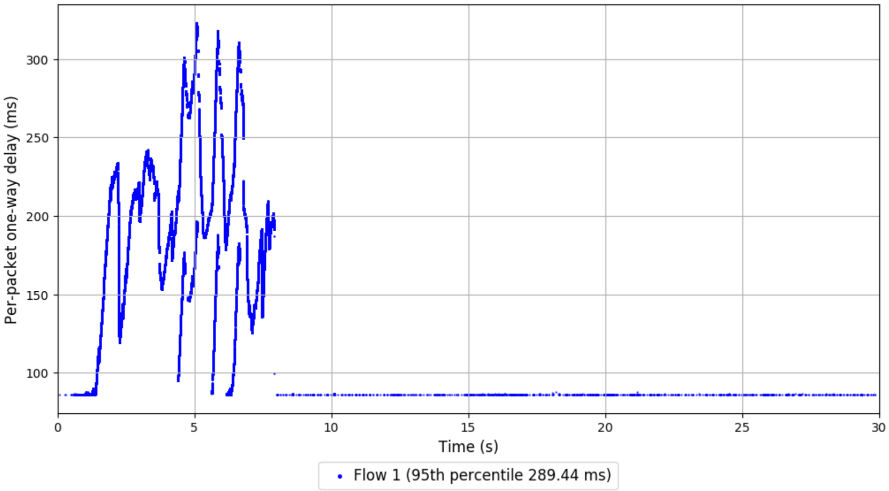




```
Run 3: Statistics of FillP

Start at: 2018-08-01 13:09:17
End at: 2018-08-01 13:09:47
Local clock offset: 0.119 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-08-01 16:35:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.99 Mbit/s
95th percentile per-packet one-way delay: 289.437 ms
Loss rate: 5.10%
-- Flow 1:
Average throughput: 179.99 Mbit/s
95th percentile per-packet one-way delay: 289.437 ms
Loss rate: 5.10%
```

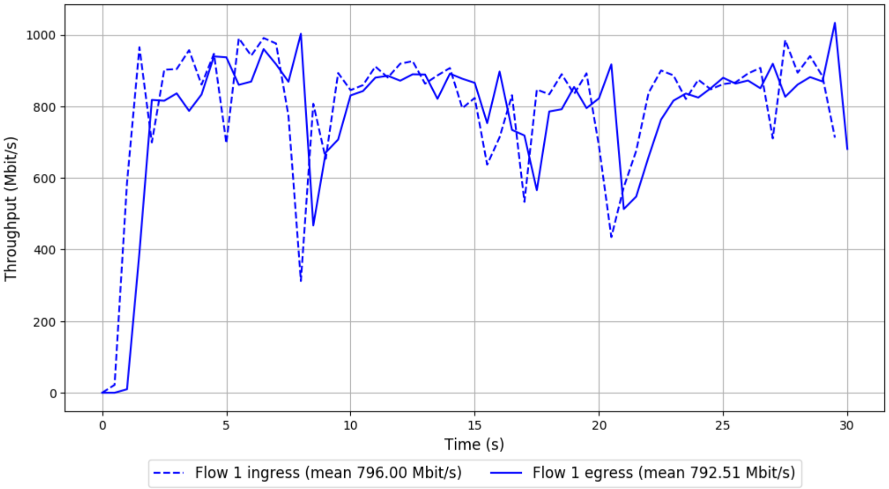
Run 3: Report of FillP — Data Link

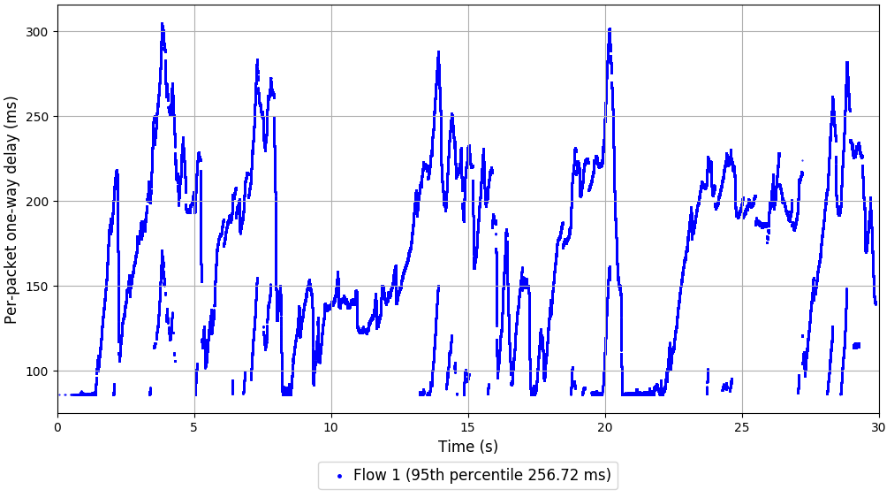




```
Run 4: Statistics of FillP

Start at: 2018-08-01 13:31:13
End at: 2018-08-01 13:31:44
Local clock offset: 0.014 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-08-01 16:35:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 792.51 Mbit/s
95th percentile per-packet one-way delay: 256.723 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 792.51 Mbit/s
95th percentile per-packet one-way delay: 256.723 ms
Loss rate: 1.01%
```

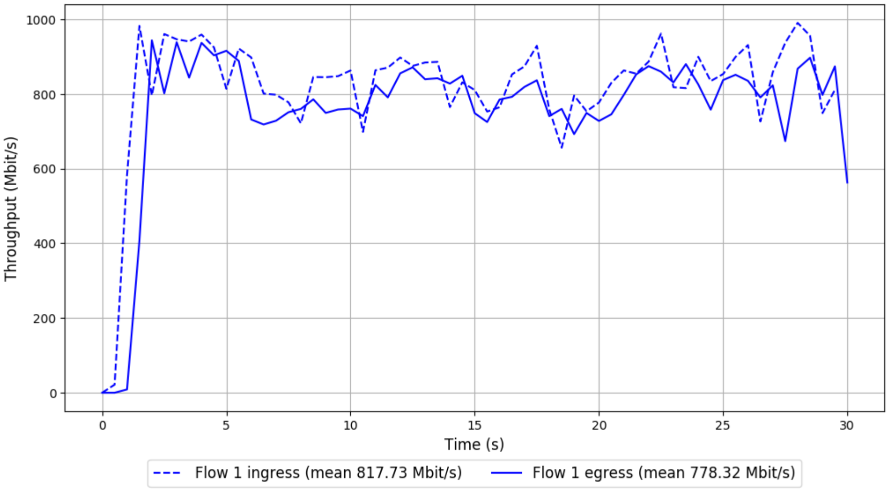
Run 4: Report of FillP — Data Link

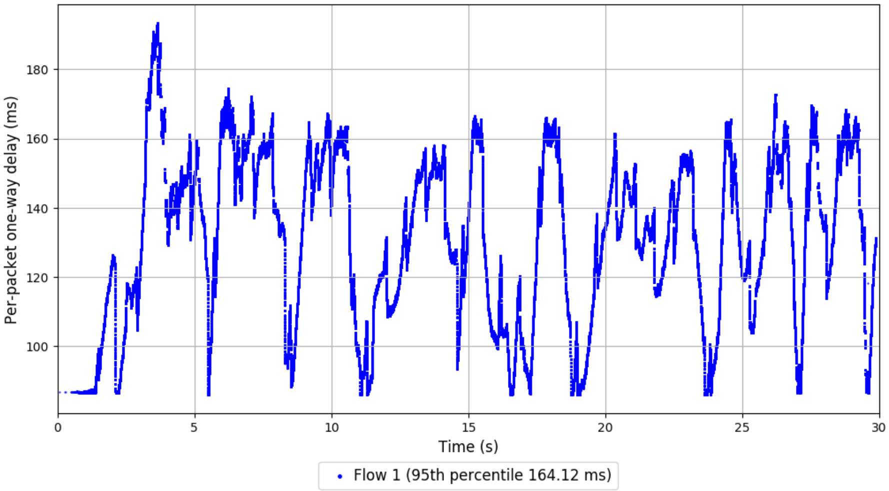




```
Run 5: Statistics of FillP

Start at: 2018-08-01 13:53:34
End at: 2018-08-01 13:54:04
Local clock offset: 0.189 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-08-01 16:35:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 778.32 Mbit/s
95th percentile per-packet one-way delay: 164.121 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 778.32 Mbit/s
95th percentile per-packet one-way delay: 164.121 ms
Loss rate: 5.37%
```

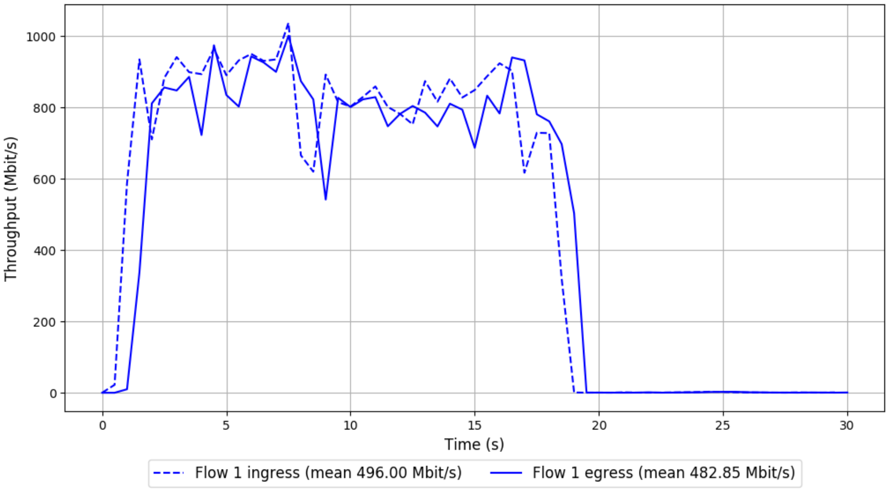
Run 5: Report of FillP — Data Link

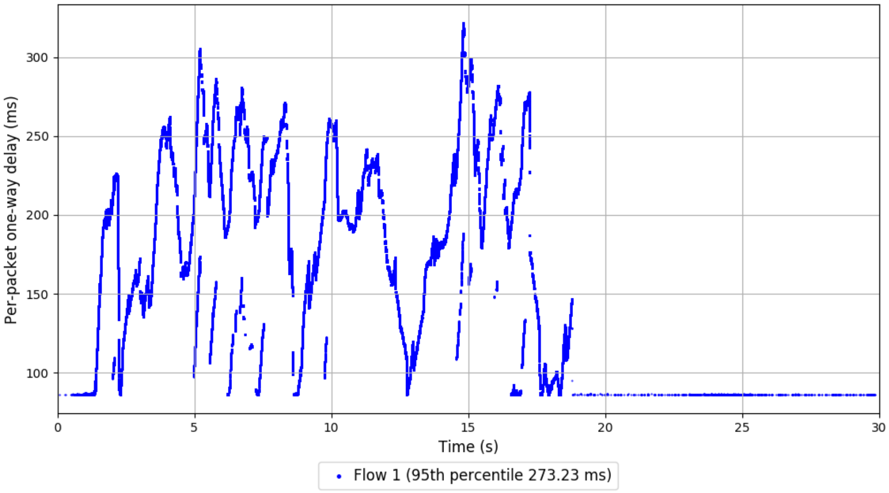




```
Run 6: Statistics of FillP

Start at: 2018-08-01 14:15:59
End at: 2018-08-01 14:16:29
Local clock offset: -0.028 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-08-01 16:35:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 482.85 Mbit/s
95th percentile per-packet one-way delay: 273.225 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 482.85 Mbit/s
95th percentile per-packet one-way delay: 273.225 ms
Loss rate: 3.12%
```

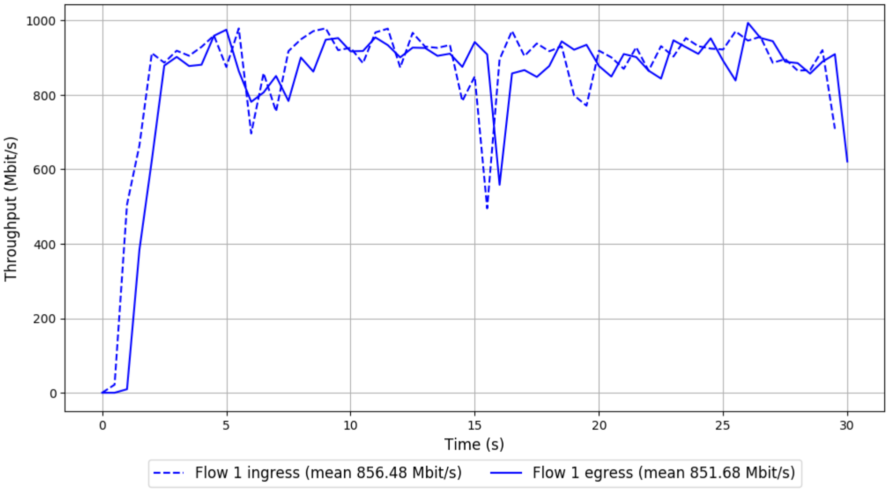
Run 6: Report of FillP — Data Link

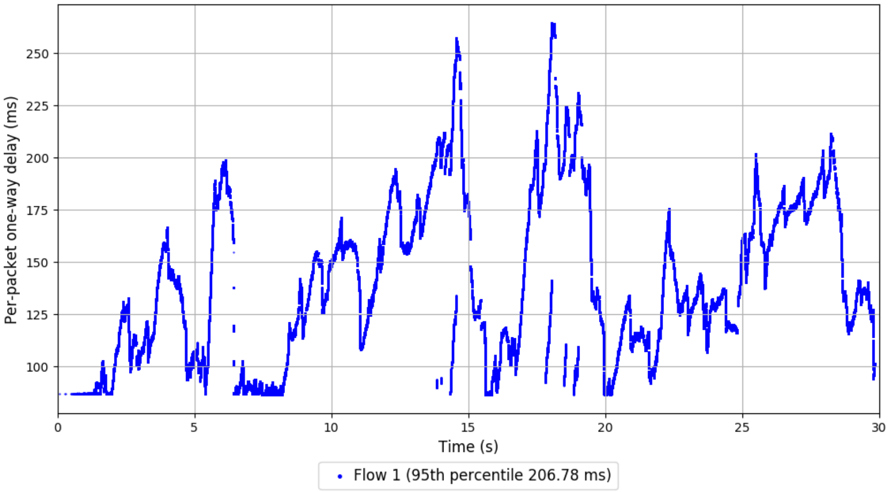




```
Run 7: Statistics of FillP

Start at: 2018-08-01 14:38:05
End at: 2018-08-01 14:38:35
Local clock offset: 0.286 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-01 16:38:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 851.68 Mbit/s
95th percentile per-packet one-way delay: 206.785 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 851.68 Mbit/s
95th percentile per-packet one-way delay: 206.785 ms
Loss rate: 1.14%
```

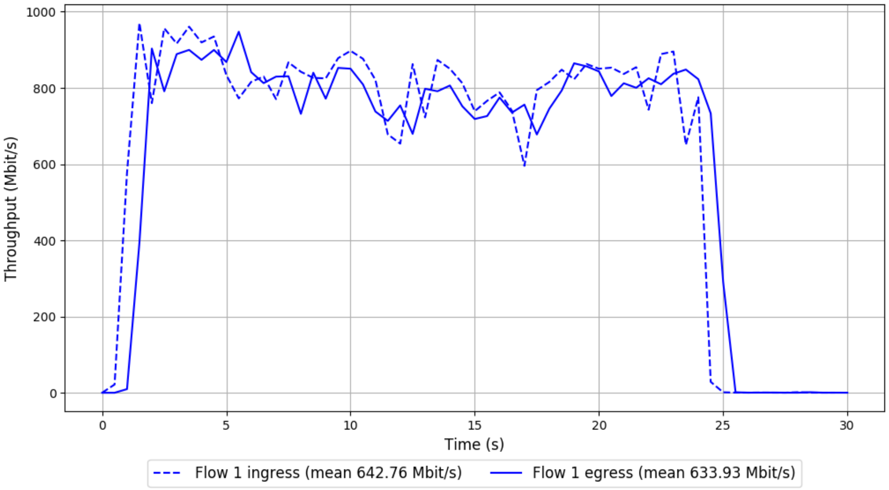
Run 7: Report of FillP — Data Link

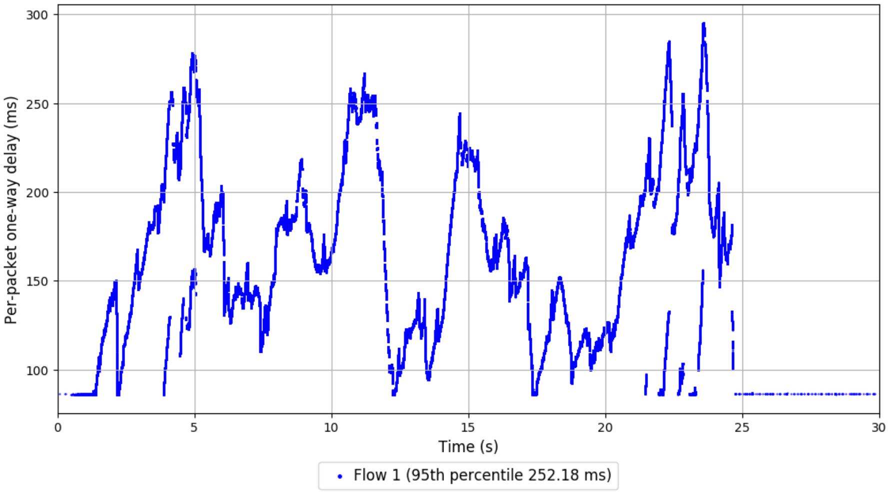




```
Run 8: Statistics of FillP

Start at: 2018-08-01 15:00:18
End at: 2018-08-01 15:00:48
Local clock offset: 0.093 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-08-01 16:38:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 633.93 Mbit/s
95th percentile per-packet one-way delay: 252.178 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 633.93 Mbit/s
95th percentile per-packet one-way delay: 252.178 ms
Loss rate: 1.94%
```

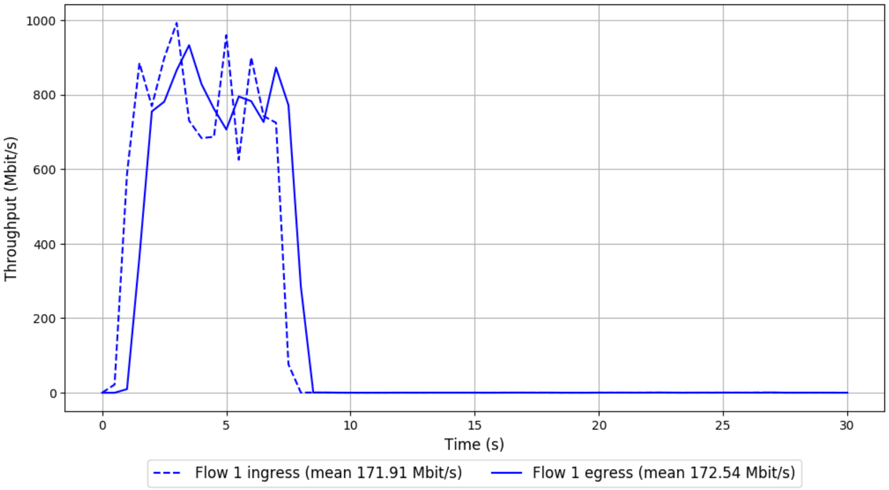
Run 8: Report of FillP — Data Link

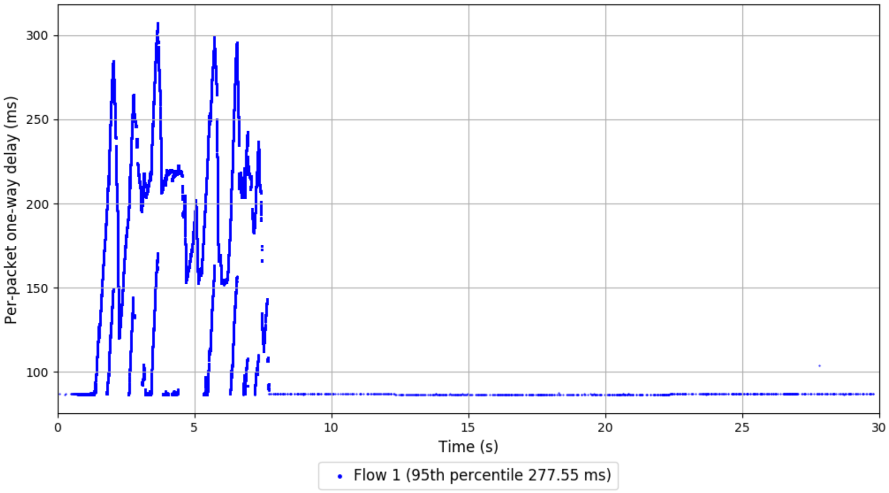




```
Run 9: Statistics of FillP

Start at: 2018-08-01 15:22:30
End at: 2018-08-01 15:23:00
Local clock offset: 0.047 ms
Remote clock offset: -0.148 ms

# Below is generated by plot.py at 2018-08-01 16:38:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.54 Mbit/s
95th percentile per-packet one-way delay: 277.546 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 172.54 Mbit/s
95th percentile per-packet one-way delay: 277.546 ms
Loss rate: 0.44%
```

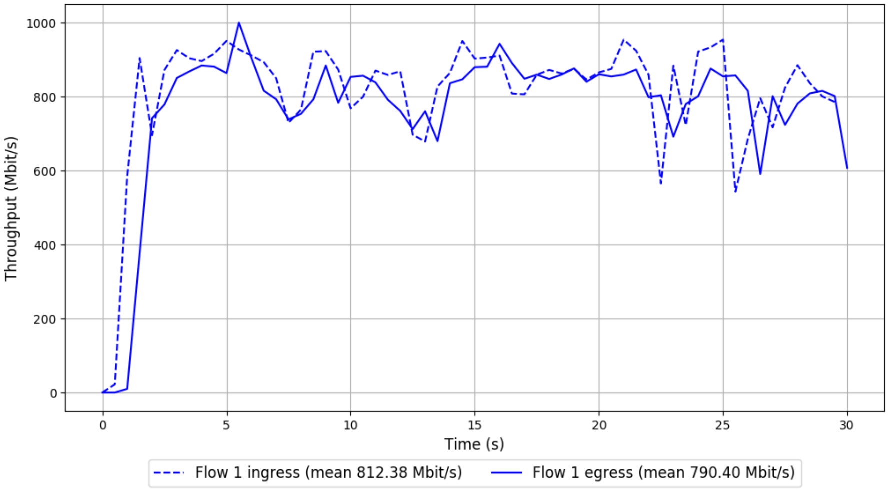
Run 9: Report of FillP — Data Link

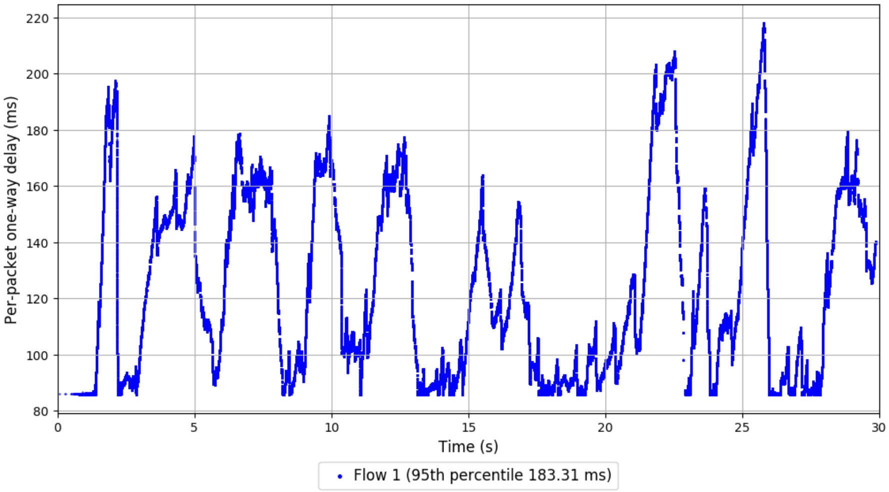




```
Run 10: Statistics of FillP

Start at: 2018-08-01 15:44:24
End at: 2018-08-01 15:44:54
Local clock offset: -0.11 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2018-08-01 16:43:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 790.40 Mbit/s
95th percentile per-packet one-way delay: 183.306 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 790.40 Mbit/s
95th percentile per-packet one-way delay: 183.306 ms
Loss rate: 3.27%
```

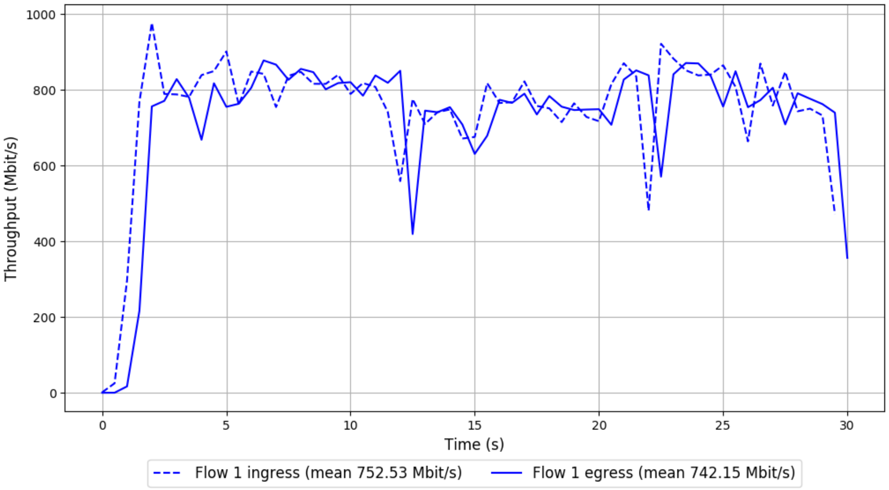
Run 10: Report of FillP — Data Link

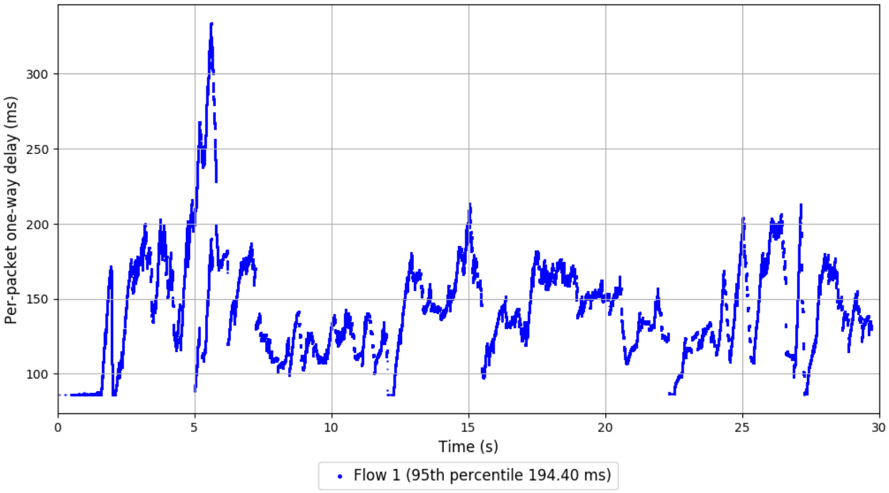




```
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-01 12:20:34
End at: 2018-08-01 12:21:04
Local clock offset: 0.007 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-08-01 16:44:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 742.15 Mbit/s
95th percentile per-packet one-way delay: 194.397 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 742.15 Mbit/s
95th percentile per-packet one-way delay: 194.397 ms
Loss rate: 1.95%
```

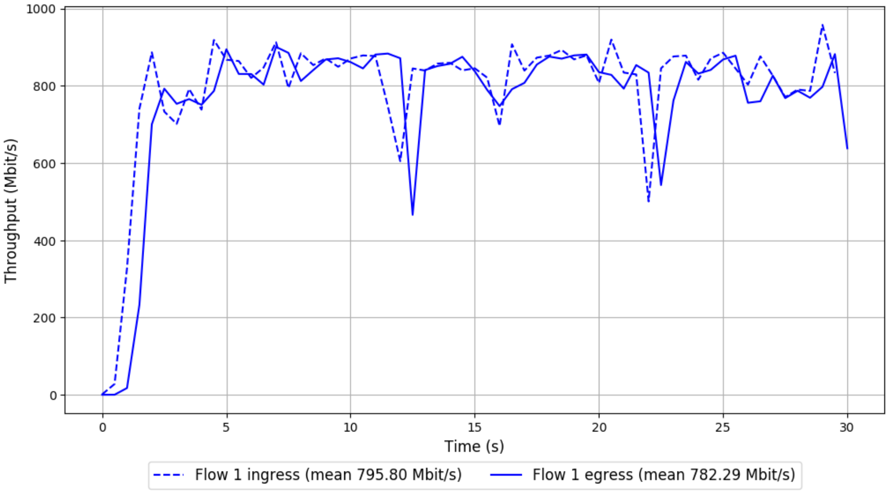
Run 1: Report of FillP-Sheep — Data Link

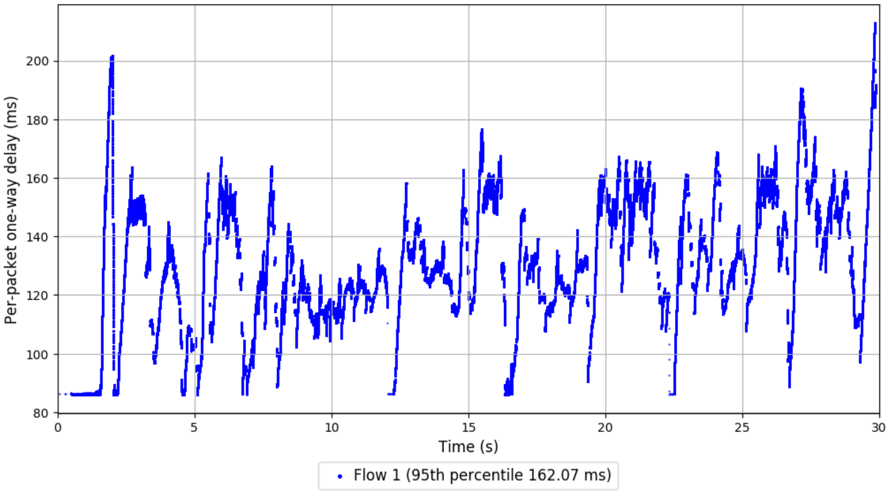




```
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-01 12:42:45
End at: 2018-08-01 12:43:15
Local clock offset: 0.14 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-08-01 16:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 782.29 Mbit/s
95th percentile per-packet one-way delay: 162.074 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 782.29 Mbit/s
95th percentile per-packet one-way delay: 162.074 ms
Loss rate: 2.28%
```

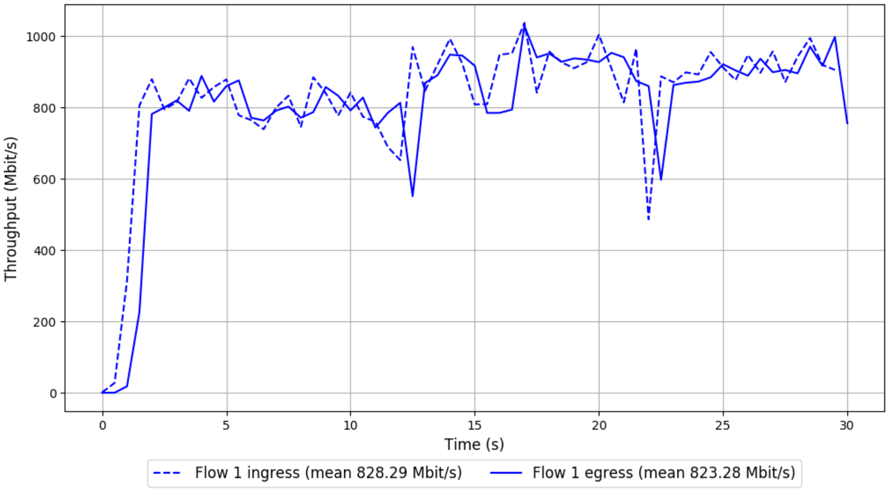
Run 2: Report of FillP-Sheep — Data Link

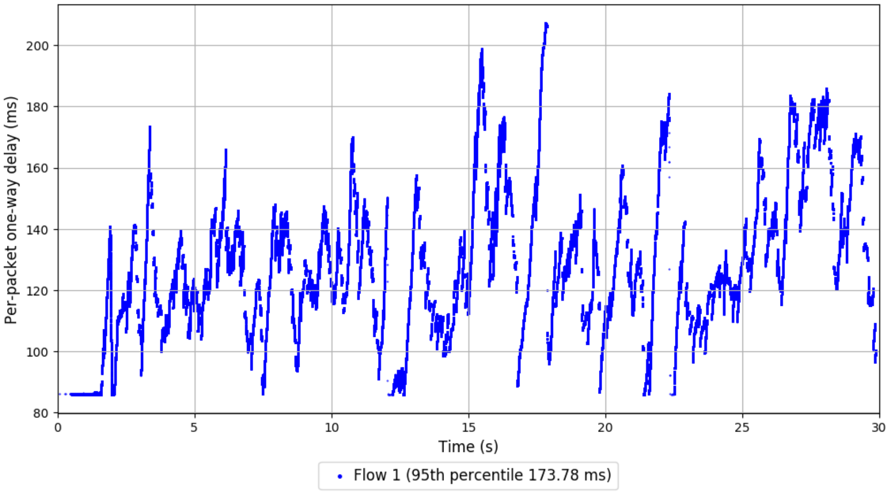




```
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-01 13:04:57
End at: 2018-08-01 13:05:27
Local clock offset: 0.12 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-08-01 16:52:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 823.28 Mbit/s
95th percentile per-packet one-way delay: 173.777 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 823.28 Mbit/s
95th percentile per-packet one-way delay: 173.777 ms
Loss rate: 1.18%
```

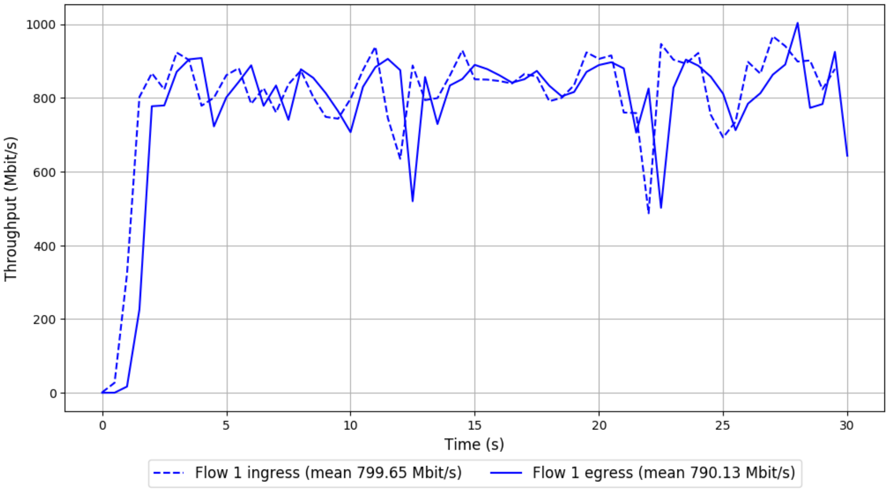
Run 3: Report of FillP-Sheep — Data Link

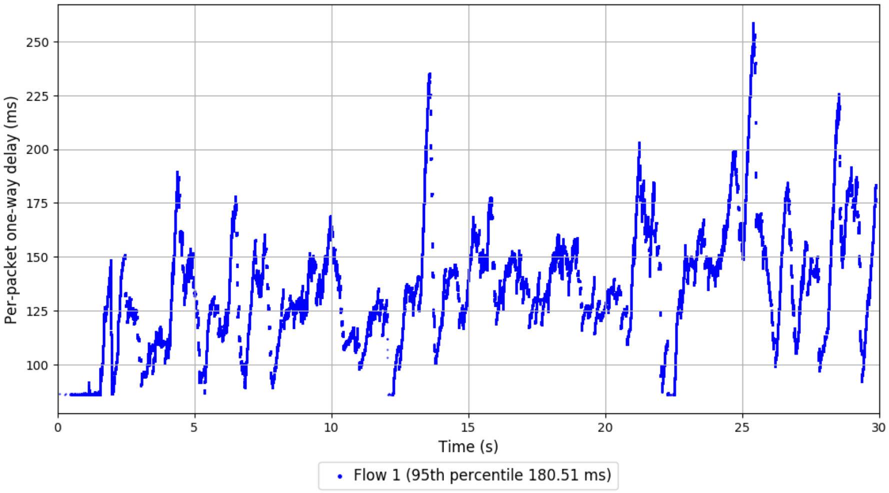




```
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-01 13:27:01
End at: 2018-08-01 13:27:31
Local clock offset: 0.085 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-08-01 16:52:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 790.13 Mbit/s
95th percentile per-packet one-way delay: 180.512 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 790.13 Mbit/s
95th percentile per-packet one-way delay: 180.512 ms
Loss rate: 1.76%
```

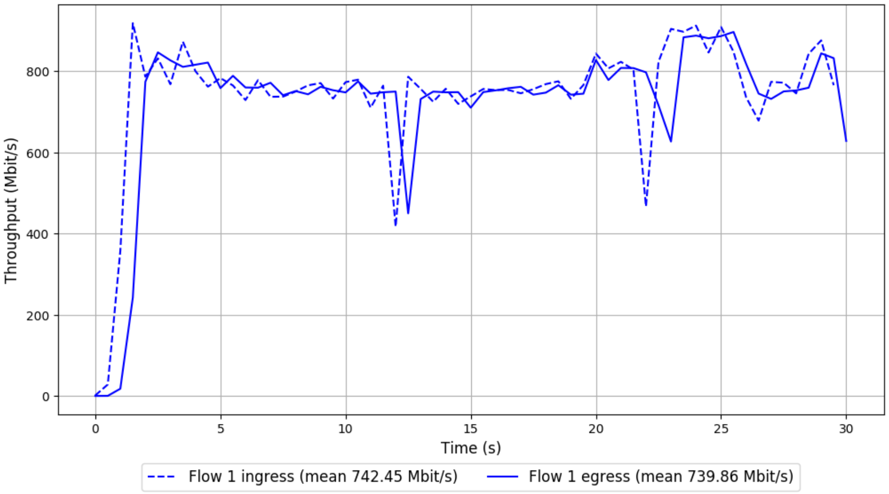
Run 4: Report of FillP-Sheep — Data Link

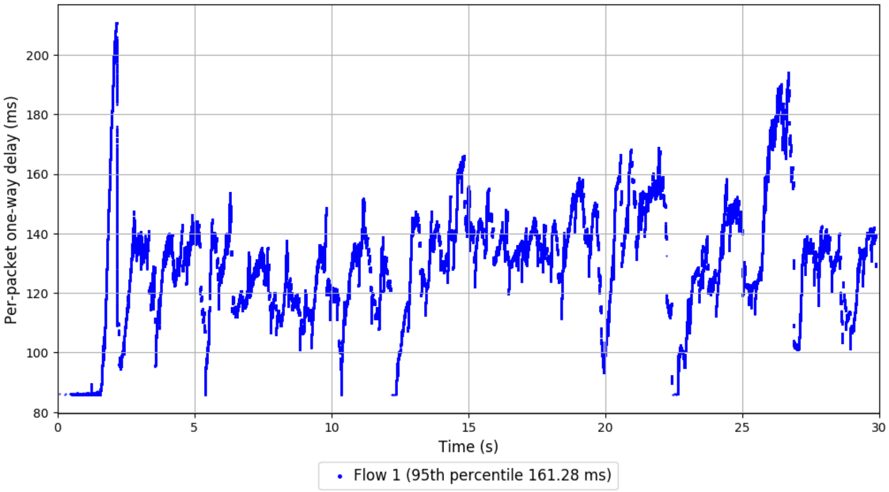




```
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-01 13:49:16
End at: 2018-08-01 13:49:46
Local clock offset: -0.057 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-08-01 16:52:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 739.86 Mbit/s
95th percentile per-packet one-way delay: 161.282 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 739.86 Mbit/s
95th percentile per-packet one-way delay: 161.282 ms
Loss rate: 0.93%
```

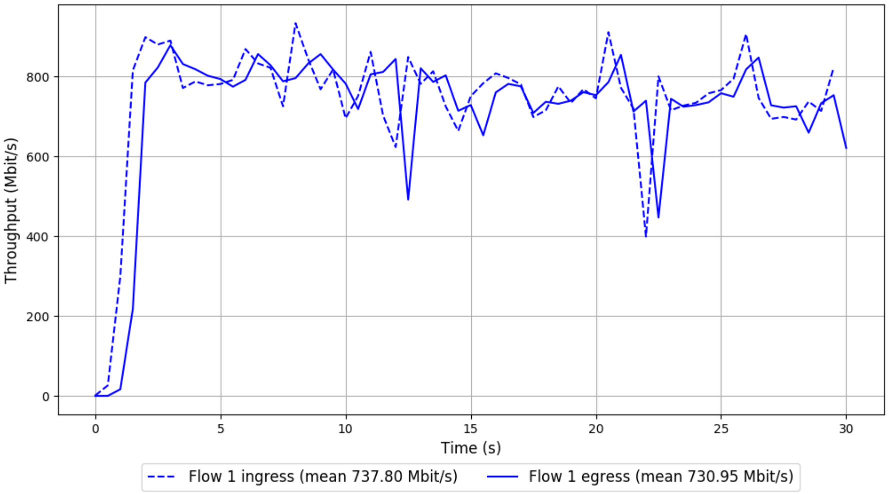
Run 5: Report of FillP-Sheep — Data Link

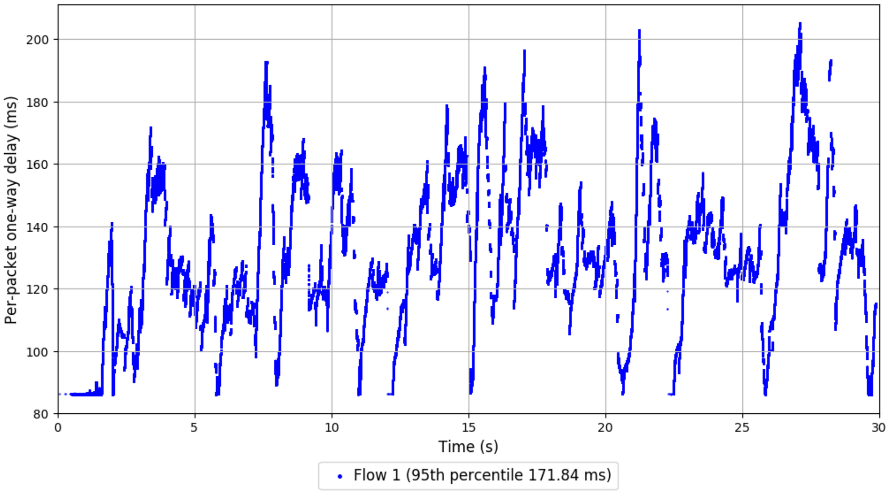




```
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-01 14:11:41
End at: 2018-08-01 14:12:11
Local clock offset: 0.238 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-08-01 16:52:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 730.95 Mbit/s
95th percentile per-packet one-way delay: 171.839 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 730.95 Mbit/s
95th percentile per-packet one-way delay: 171.839 ms
Loss rate: 1.50%
```

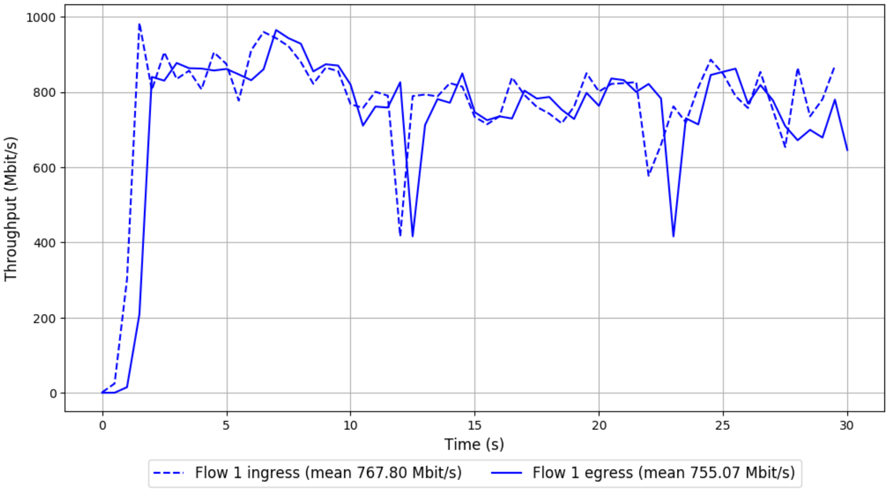
Run 6: Report of FillP-Sheep — Data Link

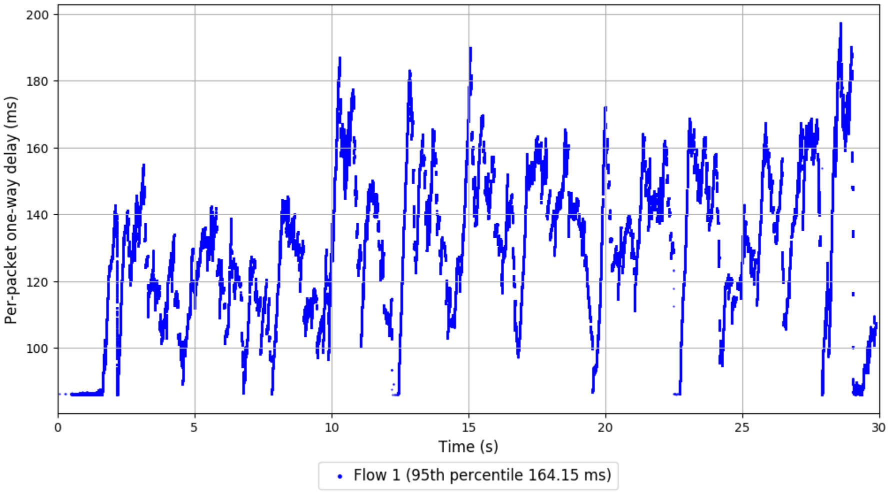




```
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-01 14:33:53
End at: 2018-08-01 14:34:23
Local clock offset: 0.099 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-08-01 16:56:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 755.07 Mbit/s
95th percentile per-packet one-way delay: 164.154 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 755.07 Mbit/s
95th percentile per-packet one-way delay: 164.154 ms
Loss rate: 2.23%
```

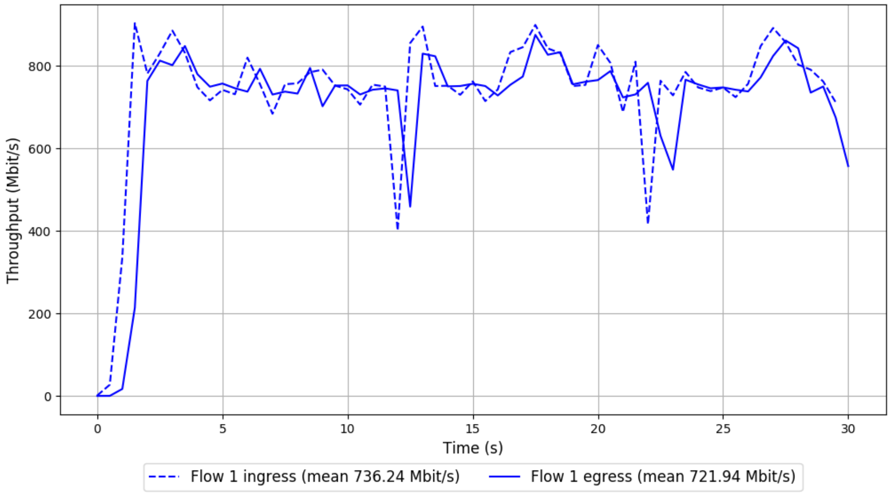
Run 7: Report of FillP-Sheep — Data Link

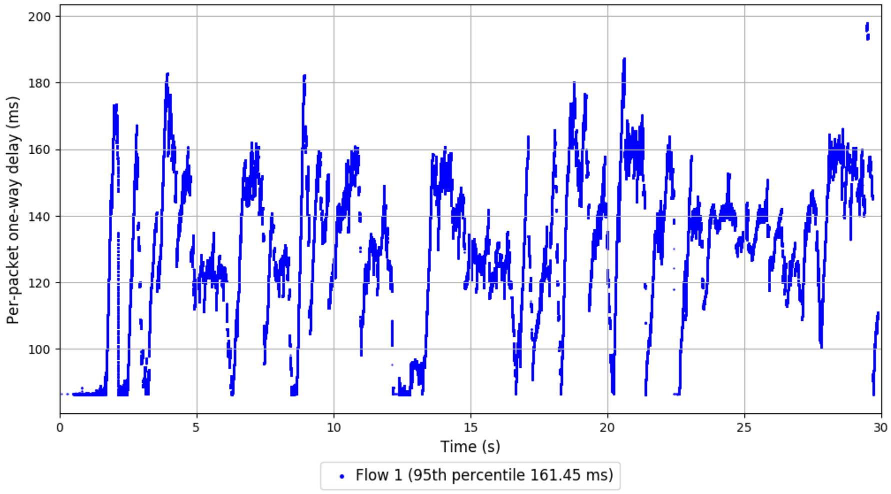




```
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-01 14:56:09
End at: 2018-08-01 14:56:39
Local clock offset: 0.032 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2018-08-01 17:00:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 721.94 Mbit/s
95th percentile per-packet one-way delay: 161.448 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 721.94 Mbit/s
95th percentile per-packet one-way delay: 161.448 ms
Loss rate: 2.51%
```

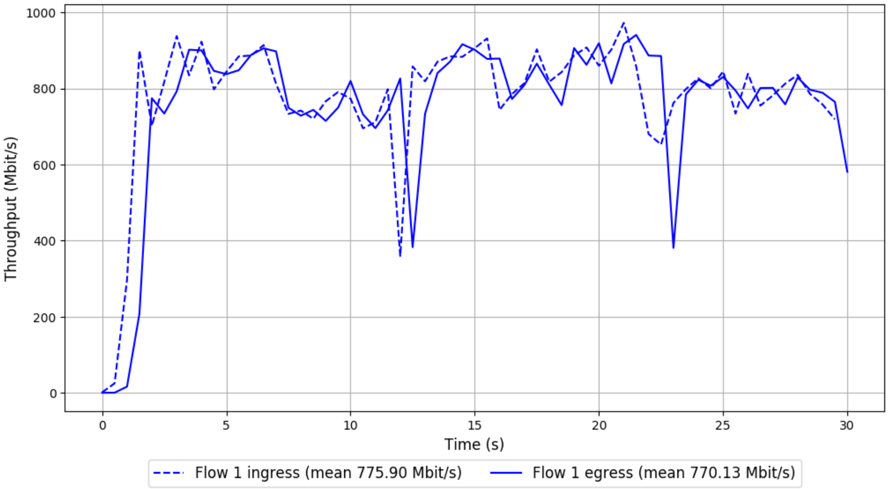
Run 8: Report of FillP-Sheep — Data Link

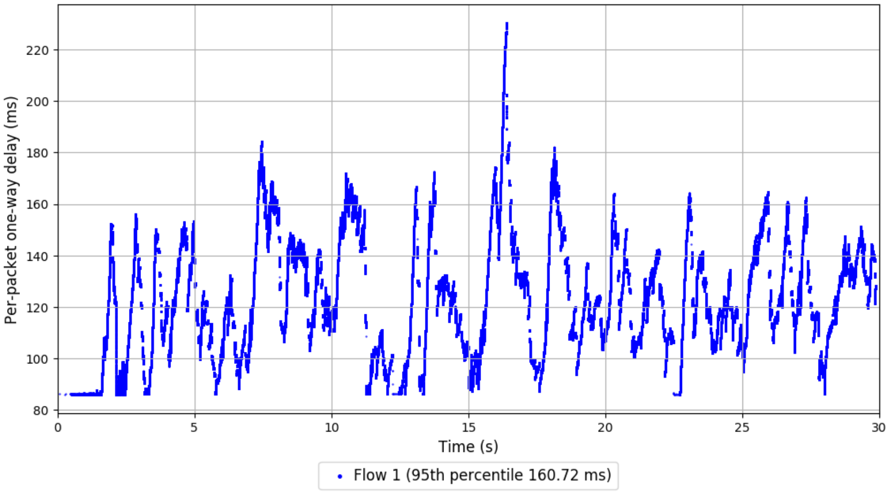




```
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-01 15:18:16
End at: 2018-08-01 15:18:46
Local clock offset: 0.077 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2018-08-01 17:04:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 770.13 Mbit/s
95th percentile per-packet one-way delay: 160.722 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 770.13 Mbit/s
95th percentile per-packet one-way delay: 160.722 ms
Loss rate: 1.32%
```

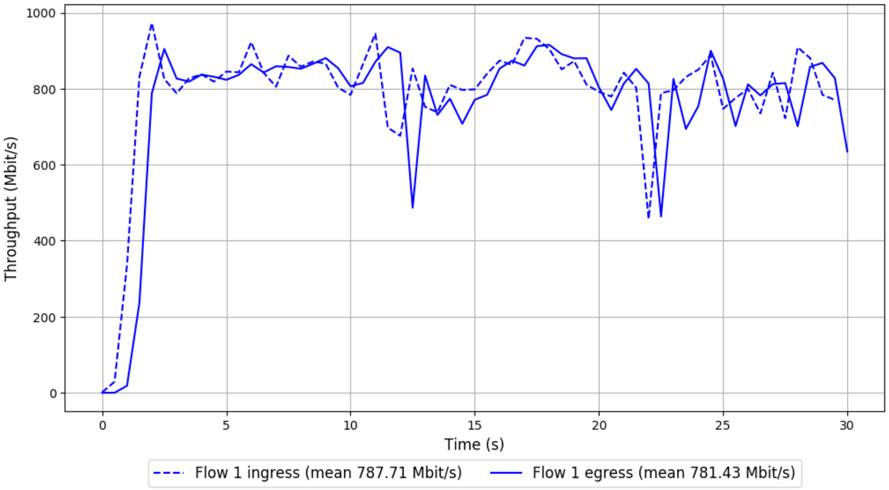
Run 9: Report of FillP-Sheep — Data Link

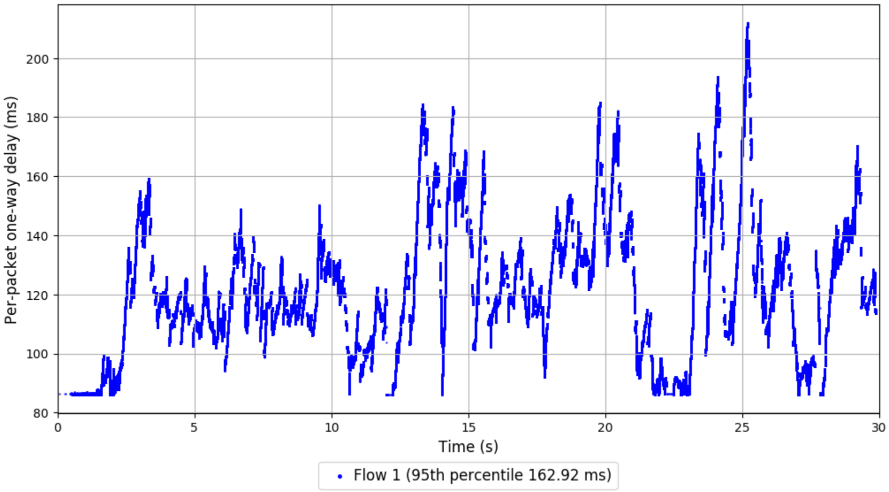




```
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-01 15:40:12
End at: 2018-08-01 15:40:42
Local clock offset: 0.065 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 781.43 Mbit/s
95th percentile per-packet one-way delay: 162.921 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 781.43 Mbit/s
95th percentile per-packet one-way delay: 162.921 ms
Loss rate: 1.37%
```

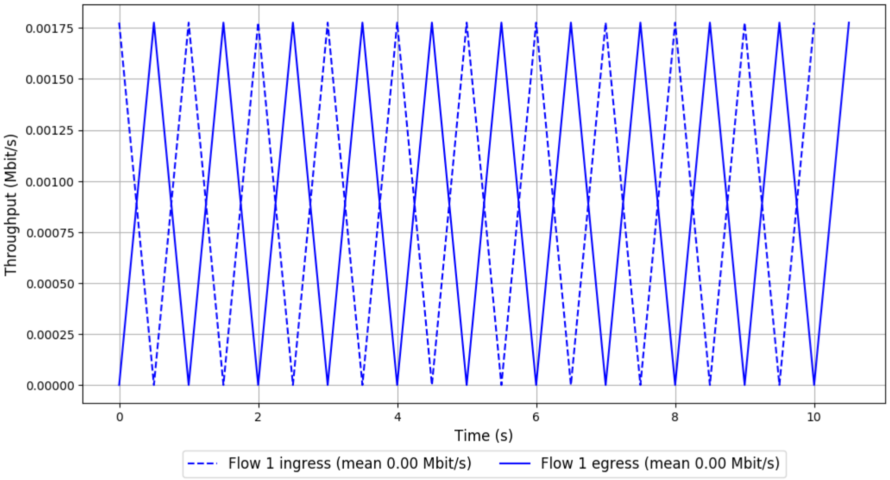
Run 10: Report of FillP-Sheep — Data Link

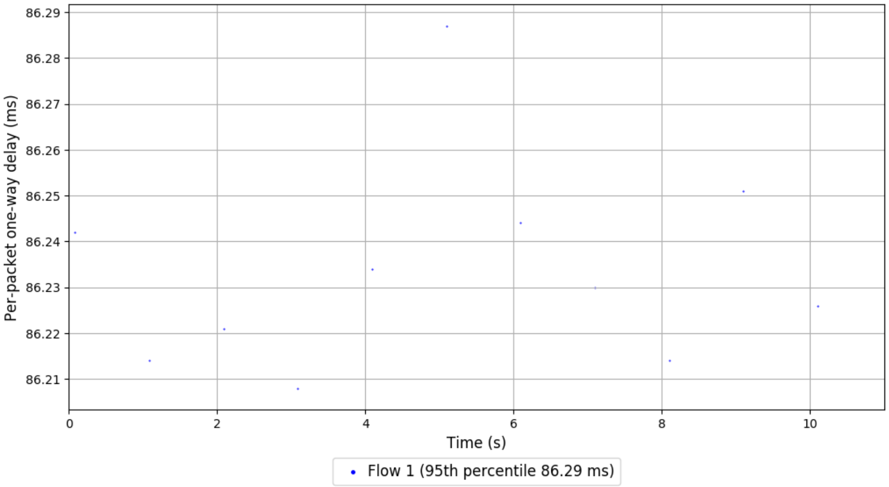




```
Run 1: Statistics of Indigo

Start at: 2018-08-01 12:31:53
End at: 2018-08-01 12:32:23
Local clock offset: 0.094 ms
Remote clock offset: -0.165 ms
```

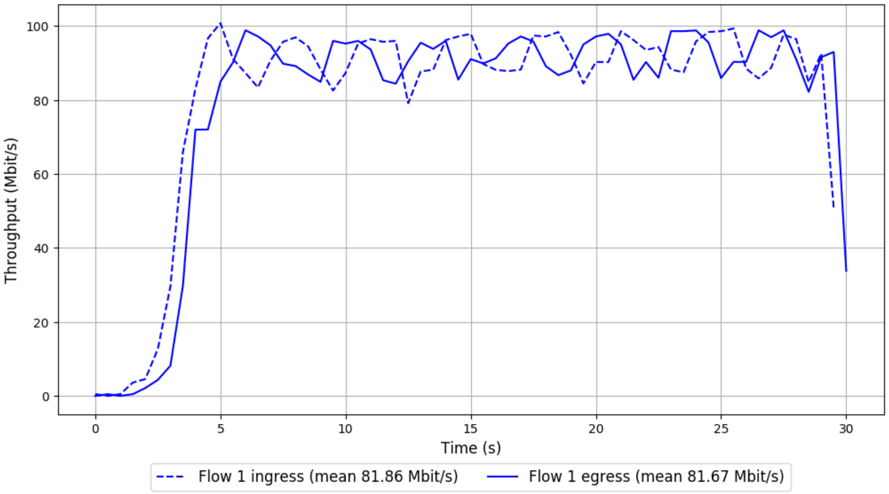
Run 1: Report of Indigo — Data Link

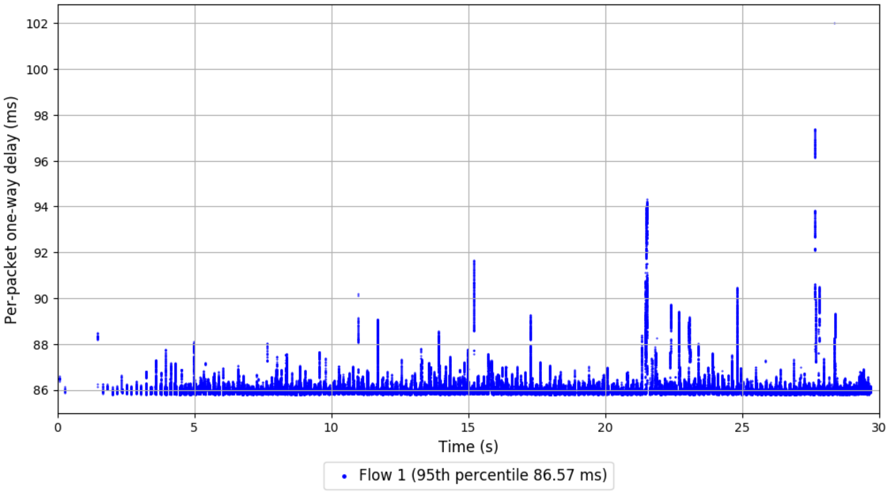




```
Run 2: Statistics of Indigo

Start at: 2018-08-01 12:54:05
End at: 2018-08-01 12:54:35
Local clock offset: 0.038 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 86.572 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 86.572 ms
Loss rate: 0.66%
```

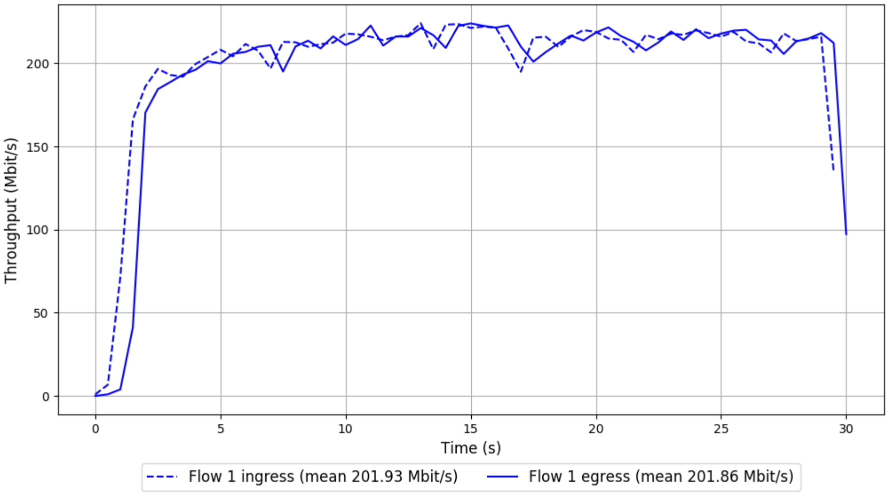
Run 2: Report of Indigo — Data Link

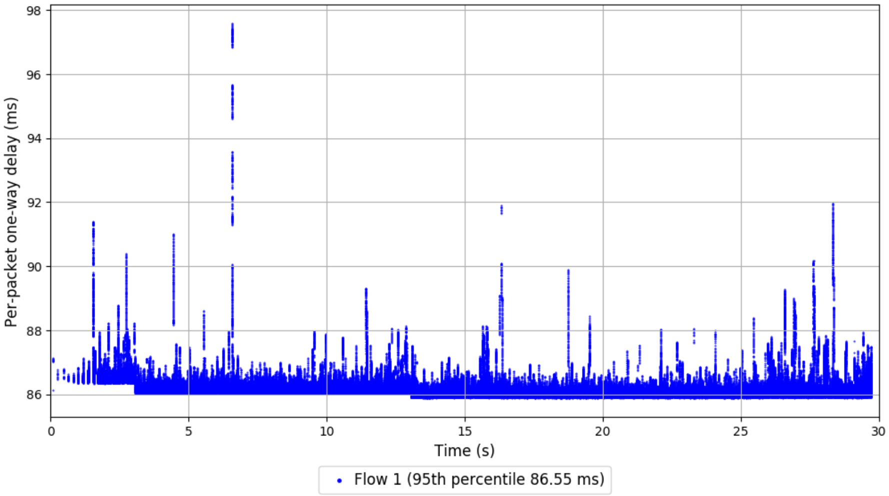




```
Run 3: Statistics of Indigo

Start at: 2018-08-01 13:15:56
End at: 2018-08-01 13:16:26
Local clock offset: 0.13 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.86 Mbit/s
95th percentile per-packet one-way delay: 86.548 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 201.86 Mbit/s
95th percentile per-packet one-way delay: 86.548 ms
Loss rate: 0.62%
```

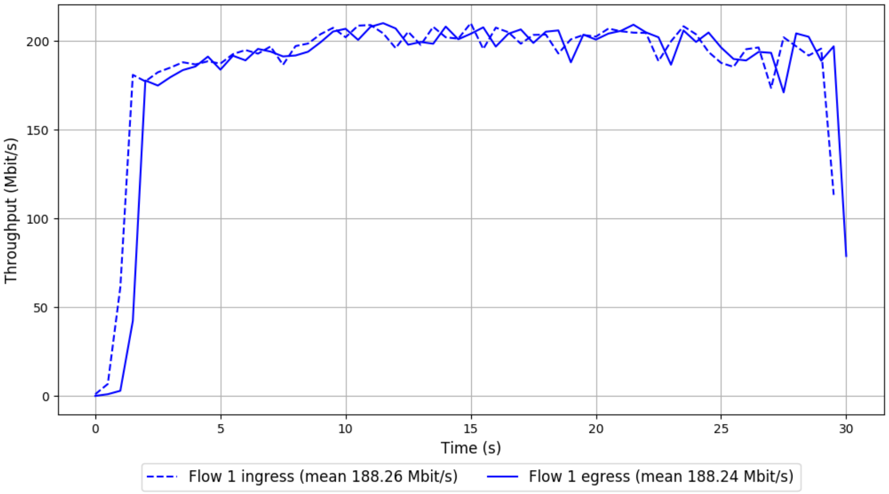
Run 3: Report of Indigo — Data Link

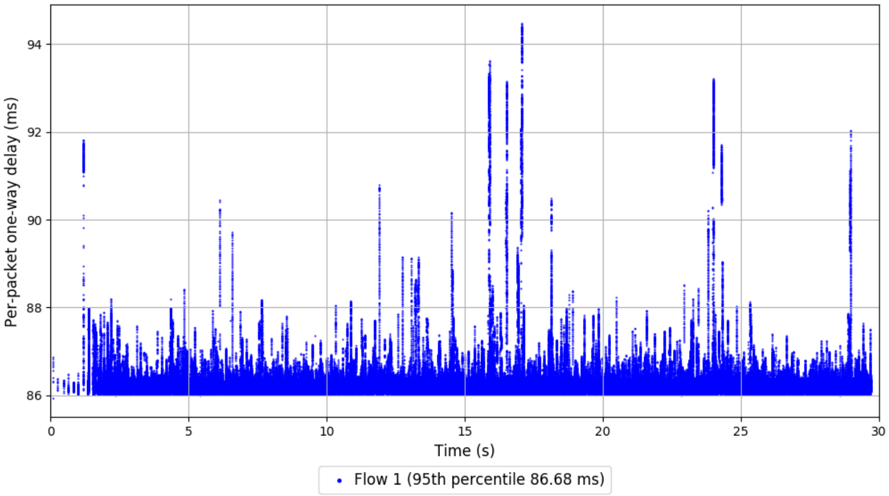




```
Run 4: Statistics of Indigo

Start at: 2018-08-01 13:38:14
End at: 2018-08-01 13:38:44
Local clock offset: -0.224 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.24 Mbit/s
95th percentile per-packet one-way delay: 86.681 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 188.24 Mbit/s
95th percentile per-packet one-way delay: 86.681 ms
Loss rate: 0.59%
```

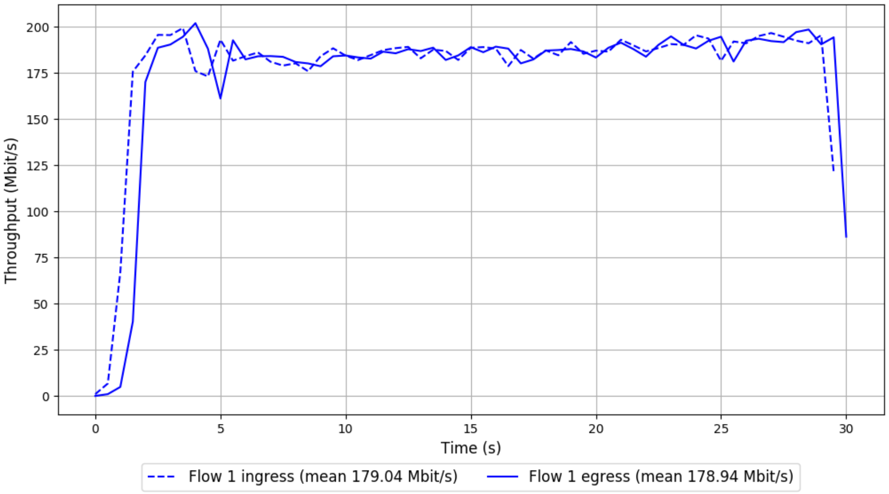
Run 4: Report of Indigo — Data Link

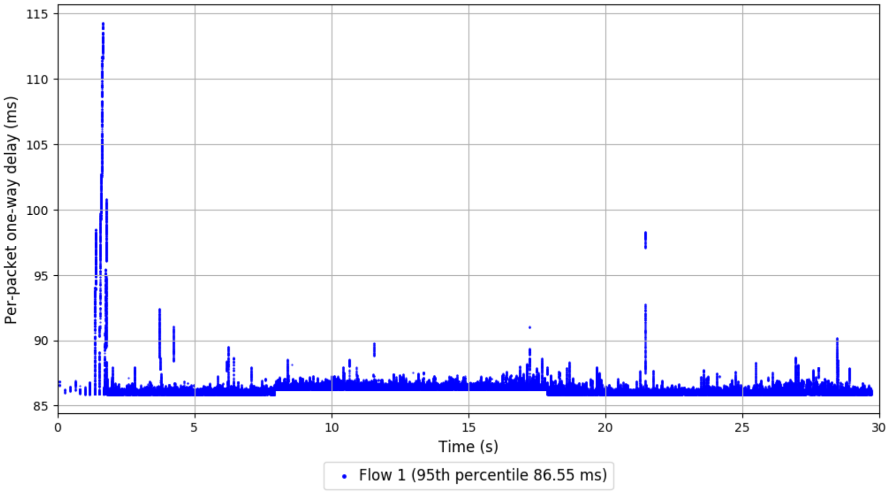




```
Run 5: Statistics of Indigo

Start at: 2018-08-01 14:00:41
End at: 2018-08-01 14:01:11
Local clock offset: 0.09 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.94 Mbit/s
95th percentile per-packet one-way delay: 86.551 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 178.94 Mbit/s
95th percentile per-packet one-way delay: 86.551 ms
Loss rate: 0.63%
```

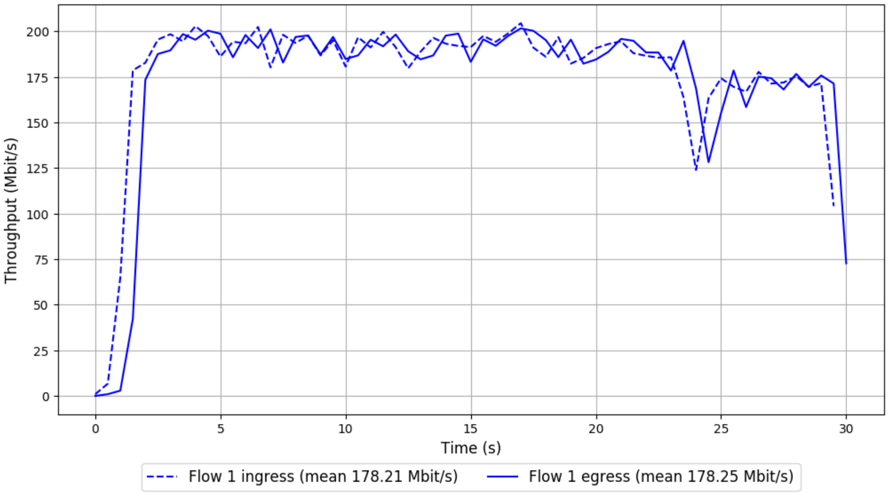
Run 5: Report of Indigo — Data Link

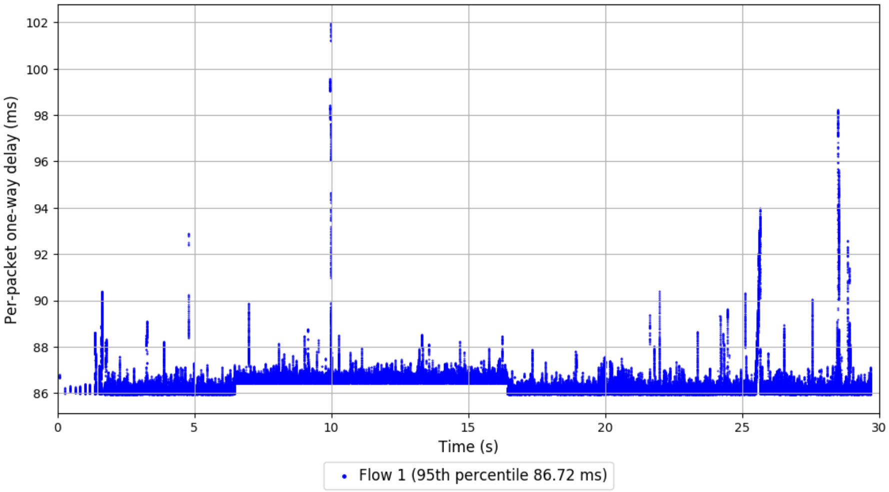




```
Run 6: Statistics of Indigo

Start at: 2018-08-01 14:22:52
End at: 2018-08-01 14:23:22
Local clock offset: 0.232 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.25 Mbit/s
95th percentile per-packet one-way delay: 86.715 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 178.25 Mbit/s
95th percentile per-packet one-way delay: 86.715 ms
Loss rate: 0.56%
```

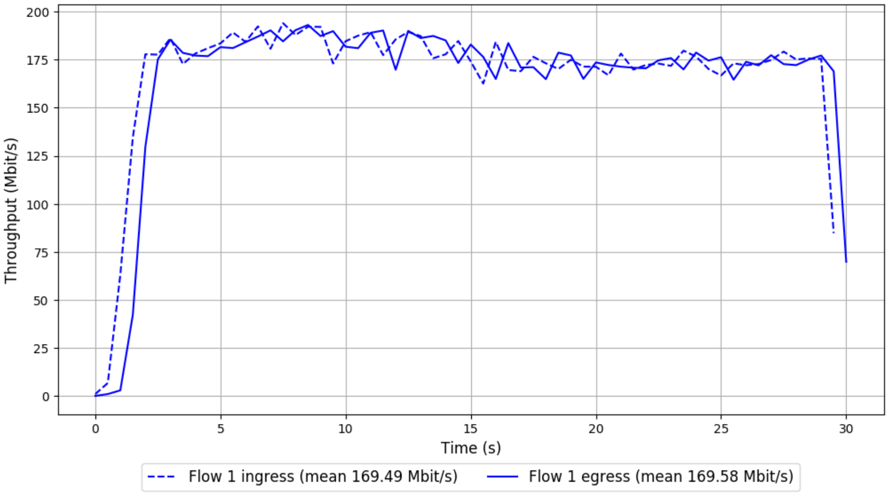
Run 6: Report of Indigo — Data Link

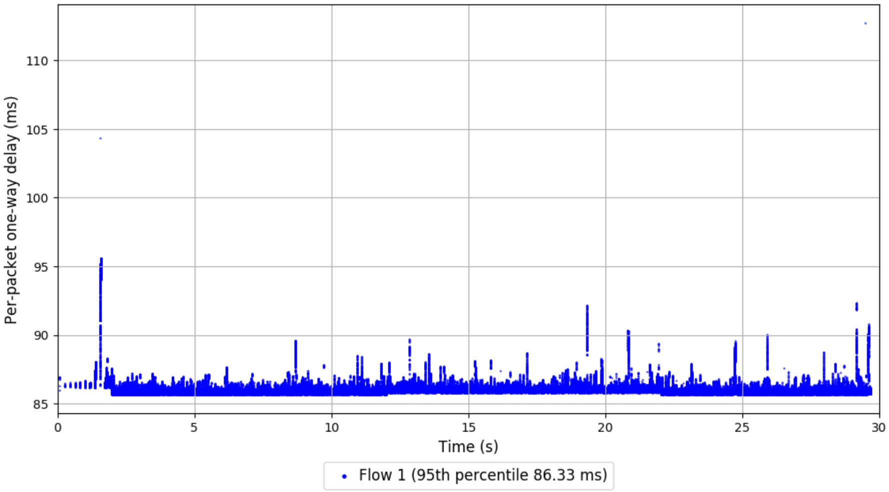




```
Run 7: Statistics of Indigo

Start at: 2018-08-01 14:45:07
End at: 2018-08-01 14:45:37
Local clock offset: -0.163 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.58 Mbit/s
95th percentile per-packet one-way delay: 86.334 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 169.58 Mbit/s
95th percentile per-packet one-way delay: 86.334 ms
Loss rate: 0.53%
```

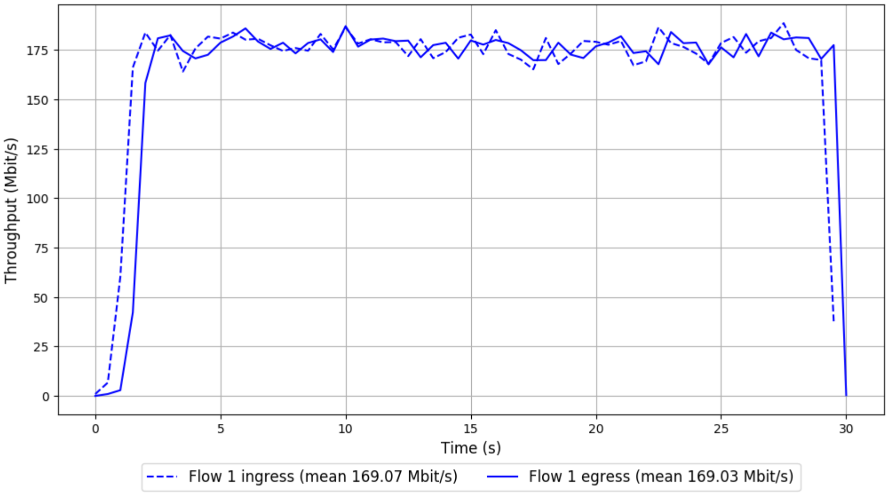
Run 7: Report of Indigo — Data Link

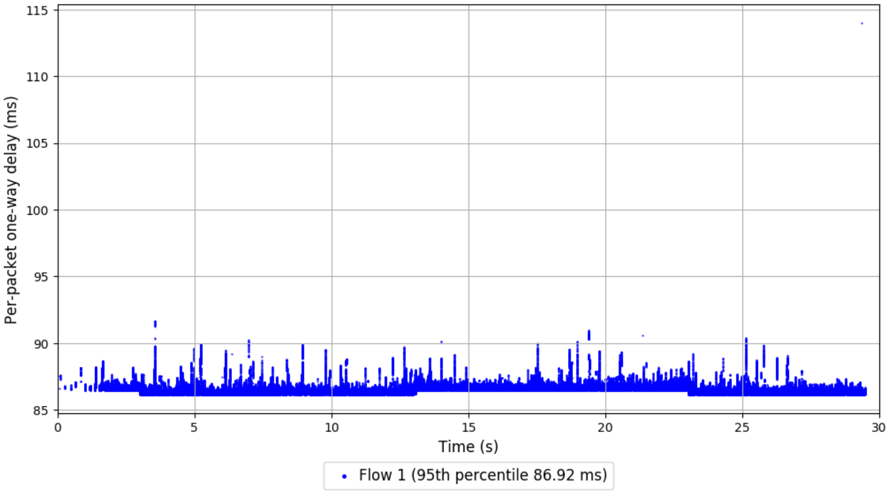




```
Run 8: Statistics of Indigo

Start at: 2018-08-01 15:07:15
End at: 2018-08-01 15:07:45
Local clock offset: 0.245 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.03 Mbit/s
95th percentile per-packet one-way delay: 86.922 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 169.03 Mbit/s
95th percentile per-packet one-way delay: 86.922 ms
Loss rate: 0.61%
```

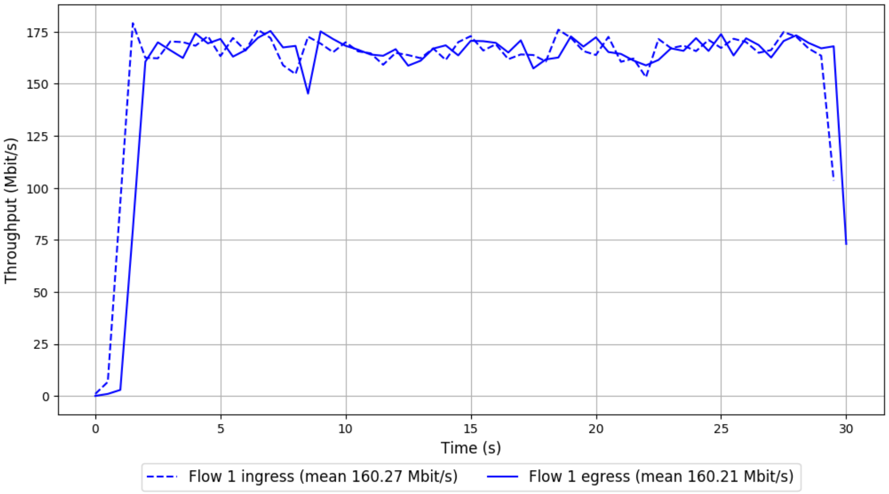
Run 8: Report of Indigo — Data Link

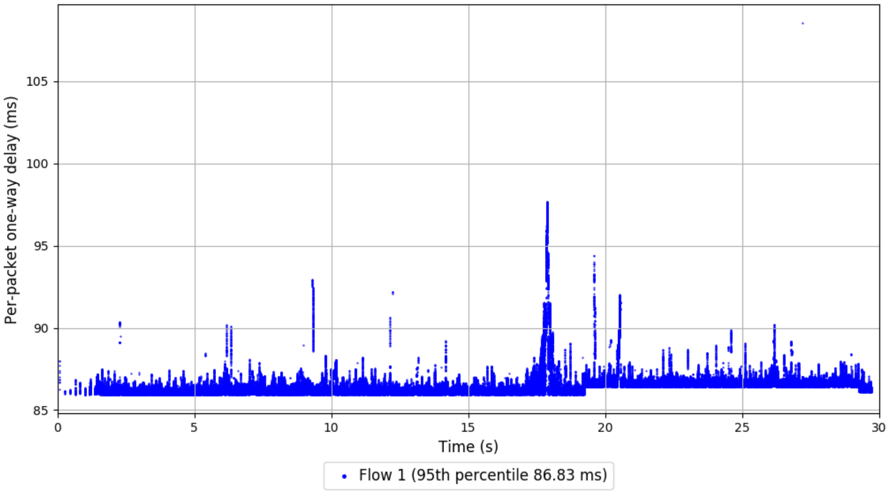




```
Run 9: Statistics of Indigo

Start at: 2018-08-01 15:29:09
End at: 2018-08-01 15:29:39
Local clock offset: 0.157 ms
Remote clock offset: -0.164 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.21 Mbit/s
95th percentile per-packet one-way delay: 86.832 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 160.21 Mbit/s
95th percentile per-packet one-way delay: 86.832 ms
Loss rate: 0.62%
```

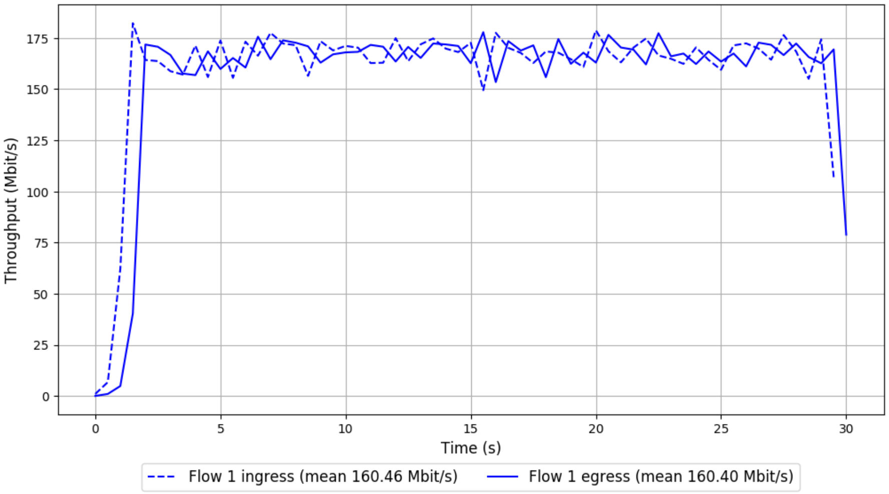
Run 9: Report of Indigo — Data Link

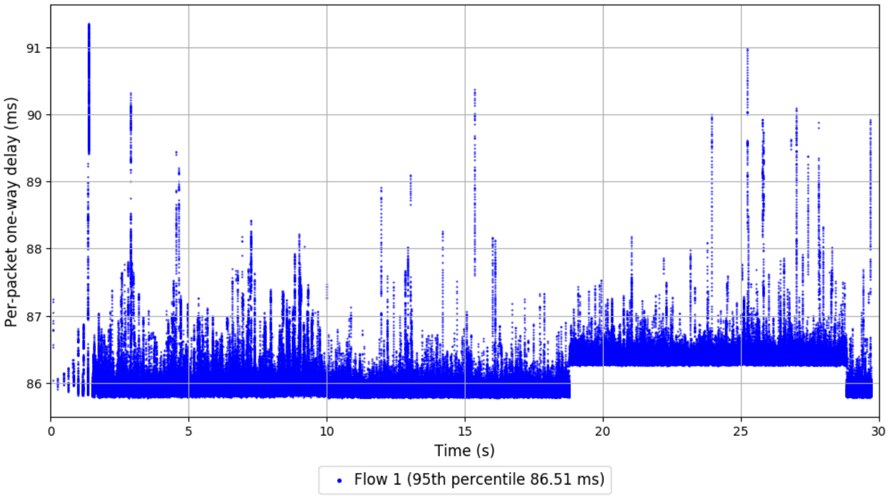




```
Run 10: Statistics of Indigo

Start at: 2018-08-01 15:51:30
End at: 2018-08-01 15:52:00
Local clock offset: 0.029 ms
Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.40 Mbit/s
95th percentile per-packet one-way delay: 86.514 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 160.40 Mbit/s
95th percentile per-packet one-way delay: 86.514 ms
Loss rate: 0.62%
```

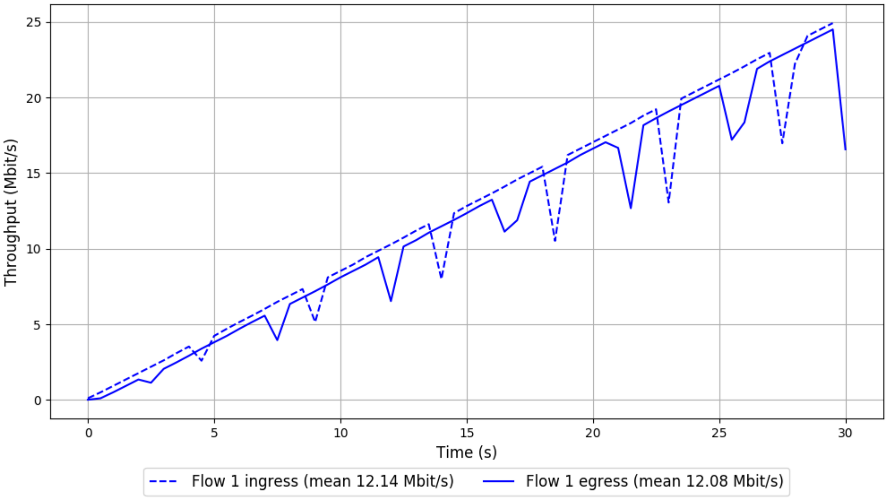
Run 10: Report of Indigo — Data Link

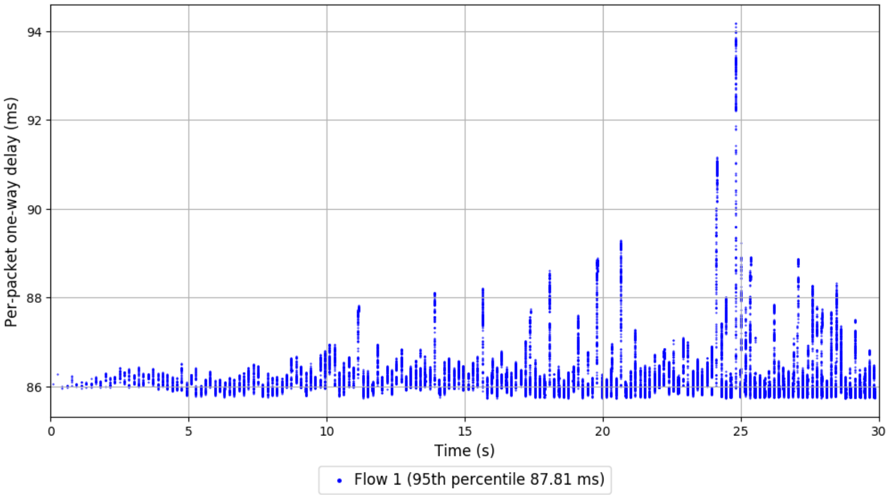




```
Run 1: Statistics of LEDBAT

Start at: 2018-08-01 12:22:11
End at: 2018-08-01 12:22:41
Local clock offset: -0.079 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 87.806 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 87.806 ms
Loss rate: 1.15%
```

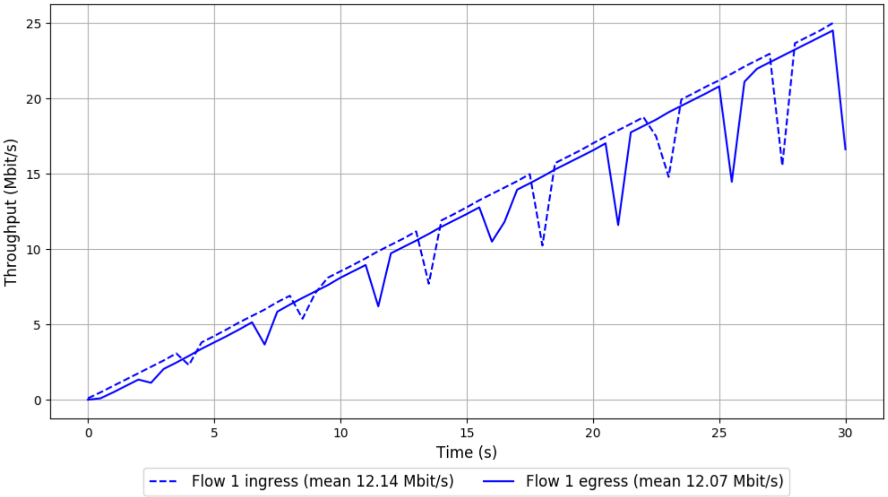
Run 1: Report of LEDBAT — Data Link

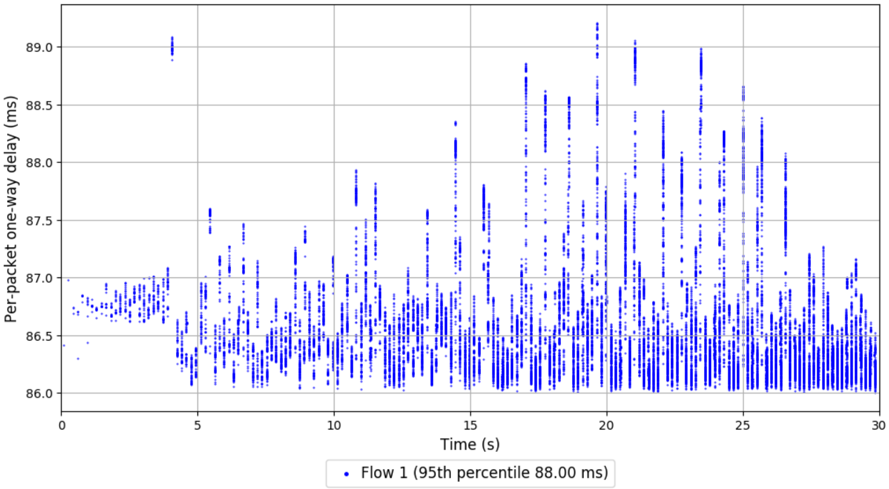




```
Run 2: Statistics of LEDBAT

Start at: 2018-08-01 12:44:25
End at: 2018-08-01 12:44:55
Local clock offset: 0.223 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 88.000 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 88.000 ms
Loss rate: 1.15%
```

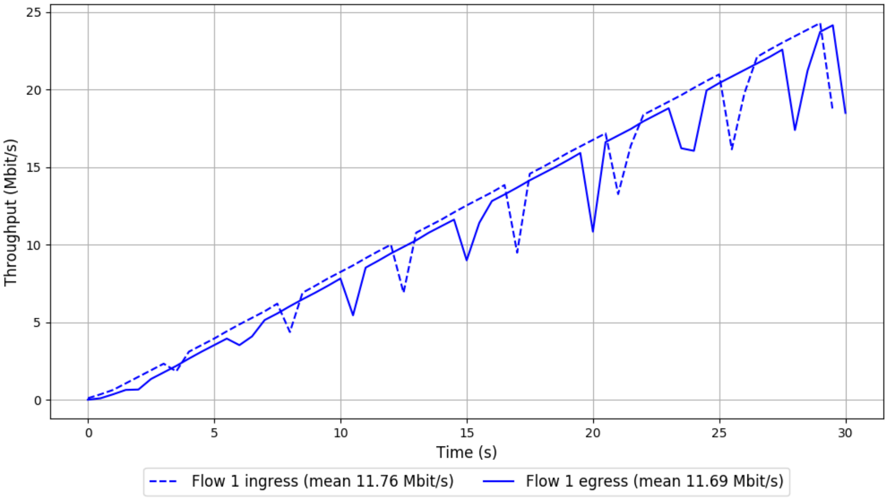
Run 2: Report of LEDBAT — Data Link

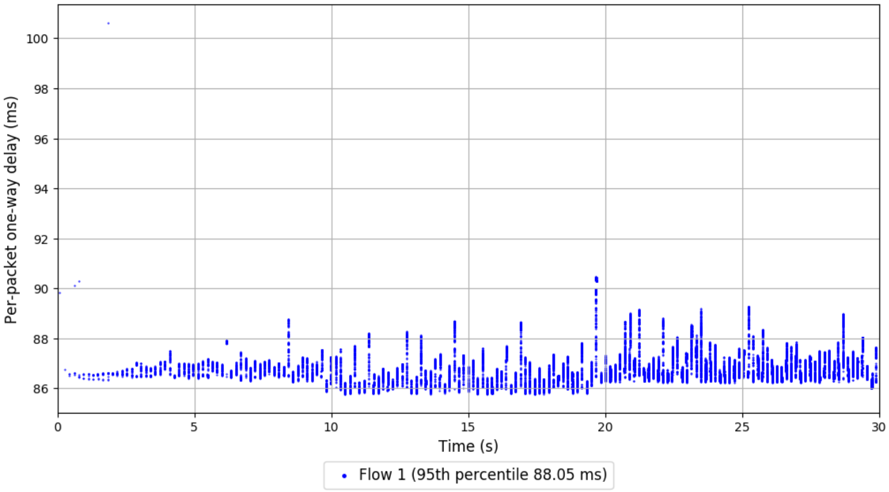




```
Run 3: Statistics of LEDBAT

Start at: 2018-08-01 13:06:39
End at: 2018-08-01 13:07:09
Local clock offset: 0.074 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 88.051 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 88.051 ms
Loss rate: 1.17%
```

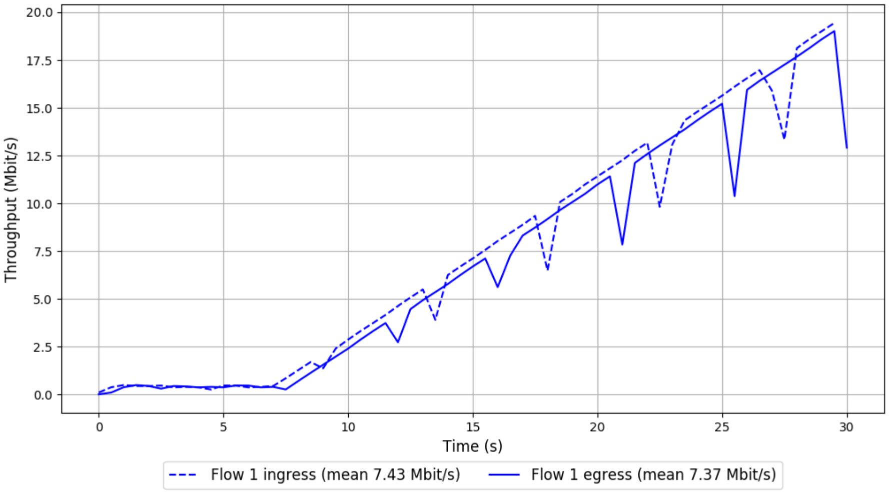
Run 3: Report of LEDBAT — Data Link

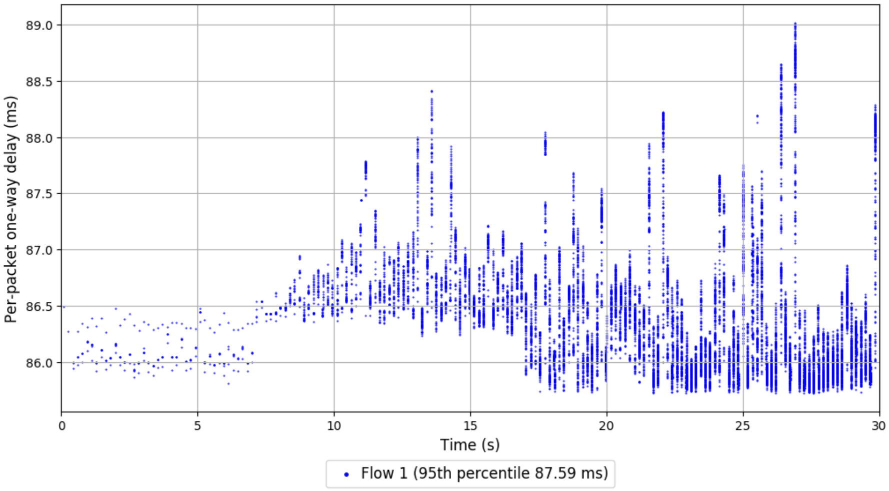




```
Run 4: Statistics of LEDBAT

Start at: 2018-08-01 13:28:42
End at: 2018-08-01 13:29:12
Local clock offset: -0.108 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 87.588 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 87.588 ms
Loss rate: 1.47%
```

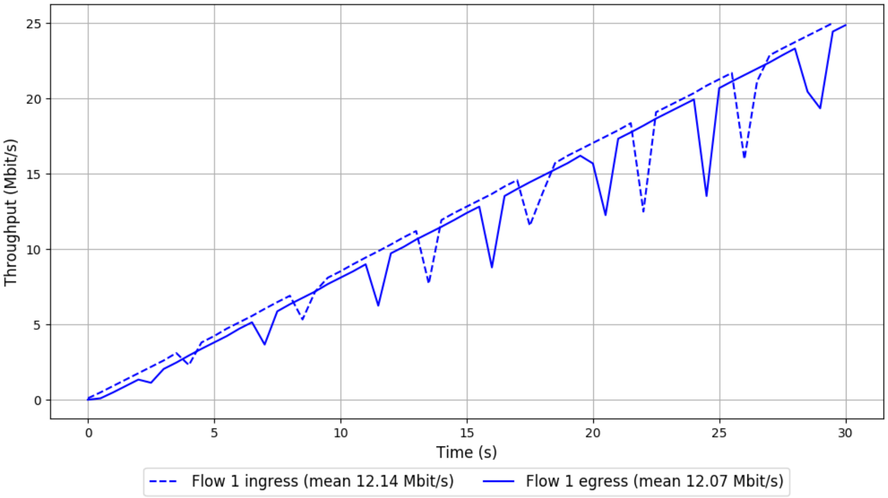
Run 4: Report of LEDBAT — Data Link

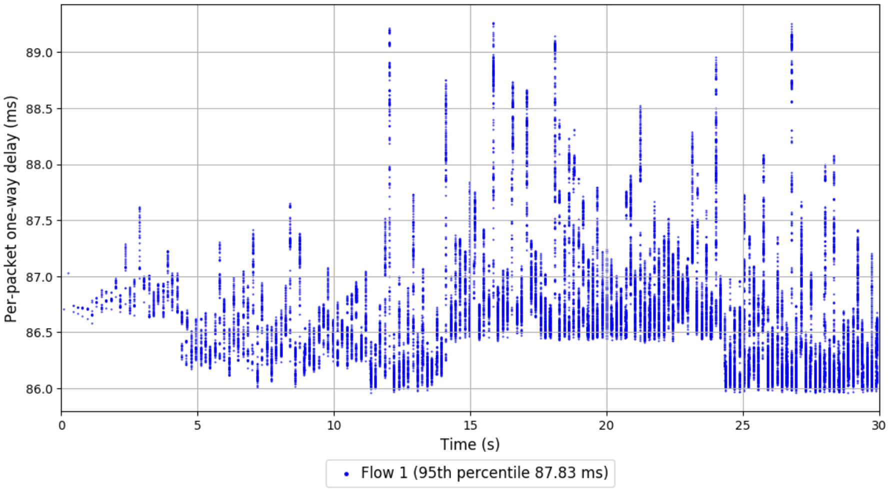




```
Run 5: Statistics of LEDBAT

Start at: 2018-08-01 13:50:54
End at: 2018-08-01 13:51:24
Local clock offset: 0.222 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 87.830 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 87.830 ms
Loss rate: 1.15%
```

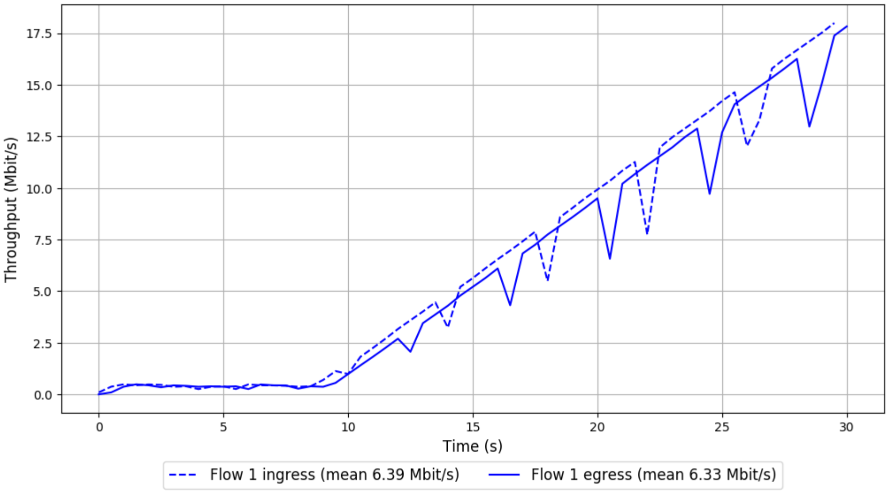
Run 5: Report of LEDBAT — Data Link

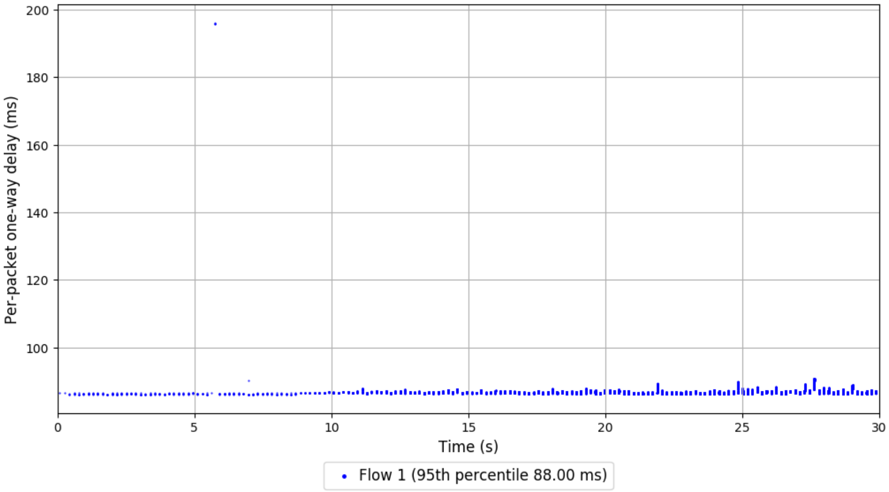




```
Run 6: Statistics of LEDBAT

Start at: 2018-08-01 14:13:20
End at: 2018-08-01 14:13:50
Local clock offset: 0.115 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 87.996 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 87.996 ms
Loss rate: 1.58%
```

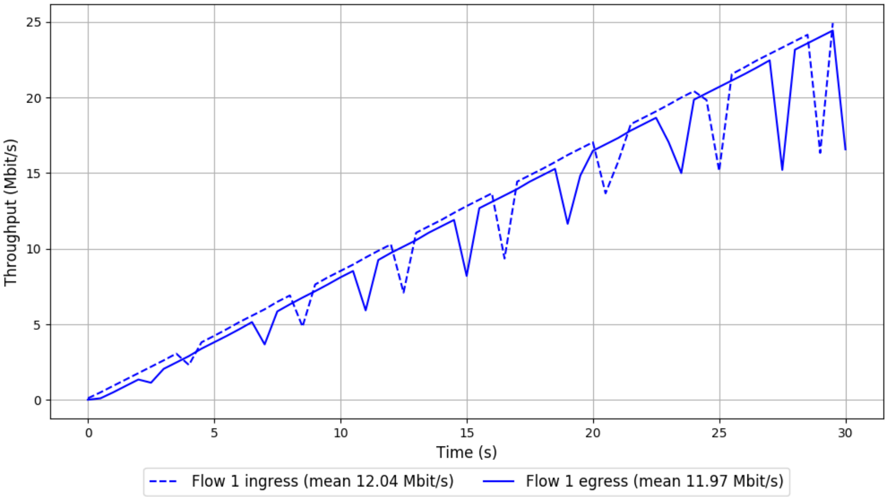
Run 6: Report of LEDBAT — Data Link

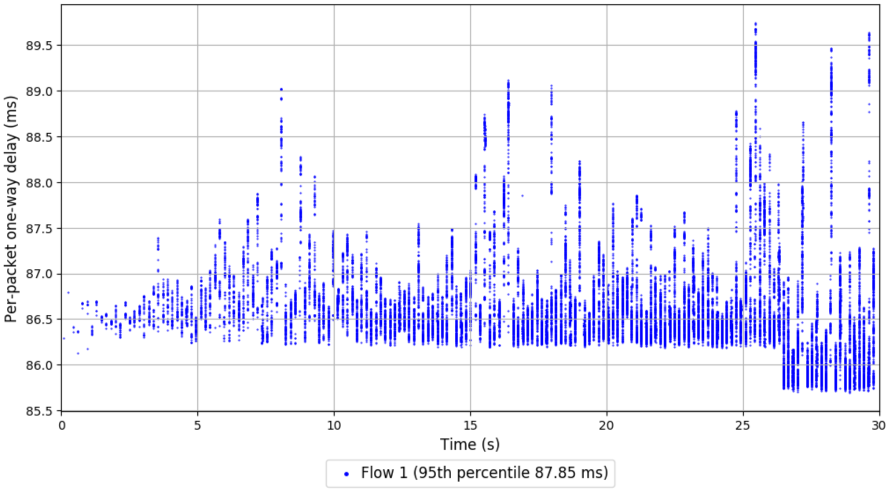




```
Run 7: Statistics of LEDBAT

Start at: 2018-08-01 14:35:32
End at: 2018-08-01 14:36:02
Local clock offset: -0.08 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 87.847 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 87.847 ms
Loss rate: 1.16%
```

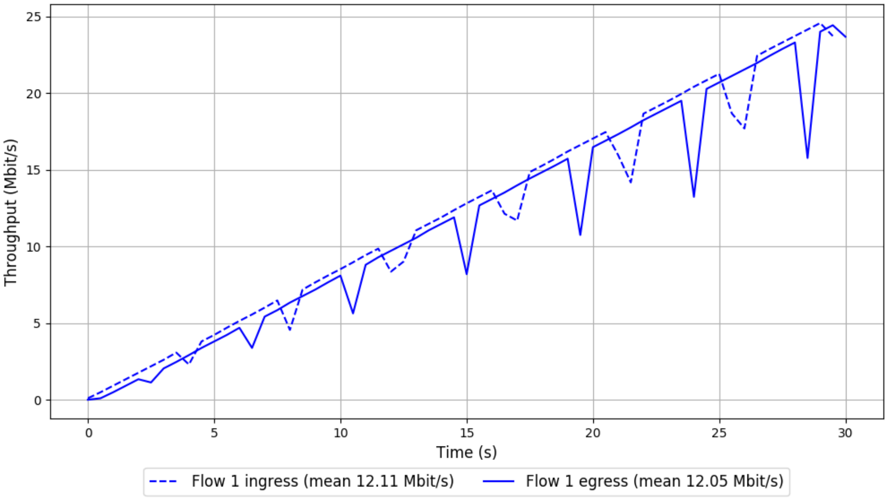
Run 7: Report of LEDBAT — Data Link

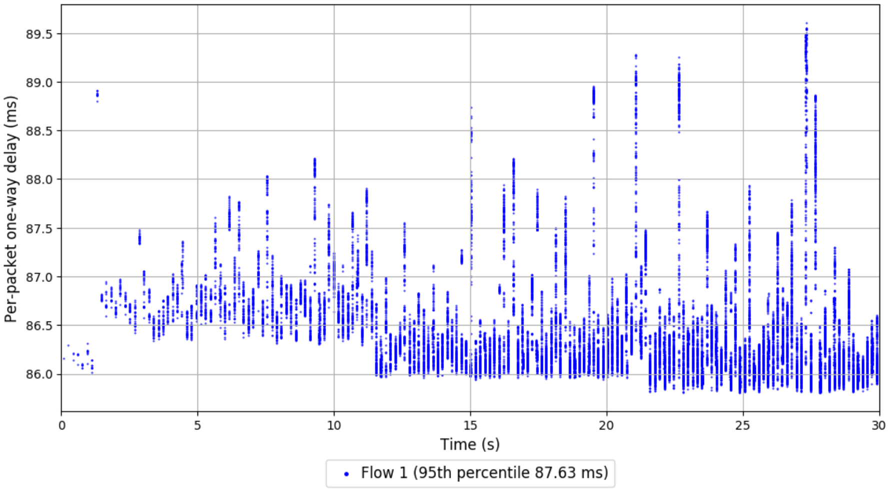




```
Run 8: Statistics of LEDBAT

Start at: 2018-08-01 14:57:47
End at: 2018-08-01 14:58:17
Local clock offset: 0.021 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 87.628 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 87.628 ms
Loss rate: 1.14%
```

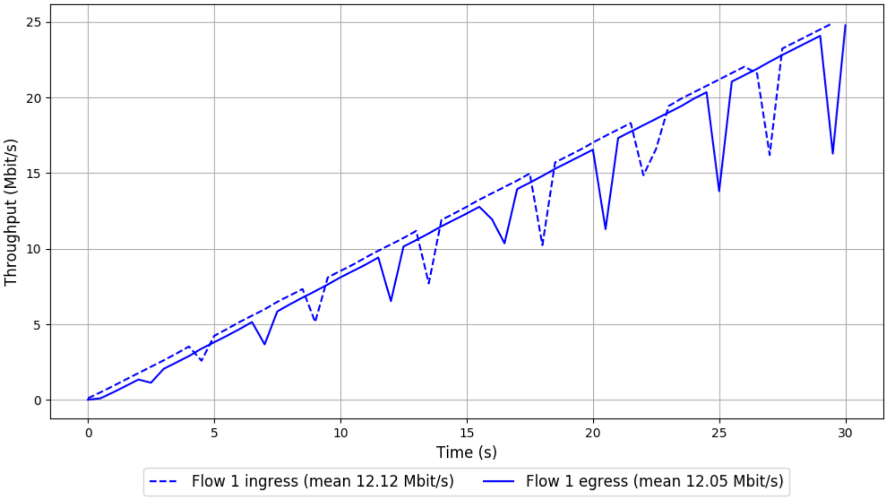
Run 8: Report of LEDBAT — Data Link

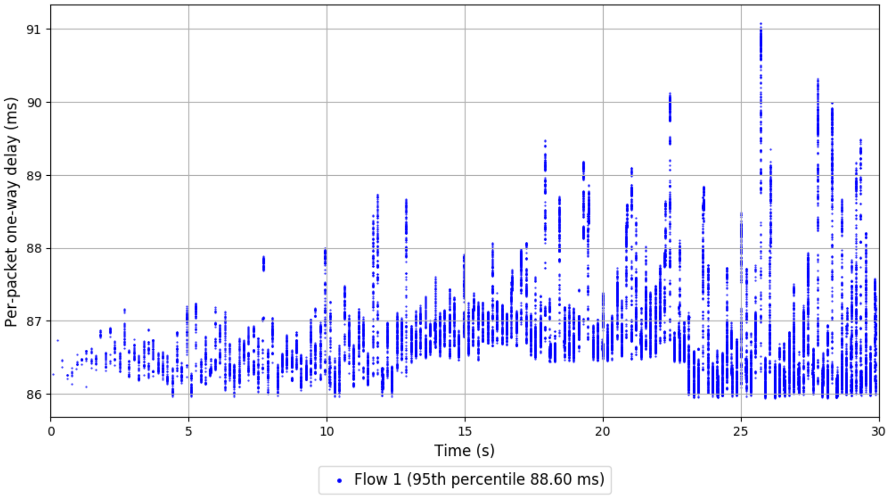




```
Run 9: Statistics of LEDBAT

Start at: 2018-08-01 15:19:56
End at: 2018-08-01 15:20:26
Local clock offset: 0.174 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 88.598 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 88.598 ms
Loss rate: 1.15%
```

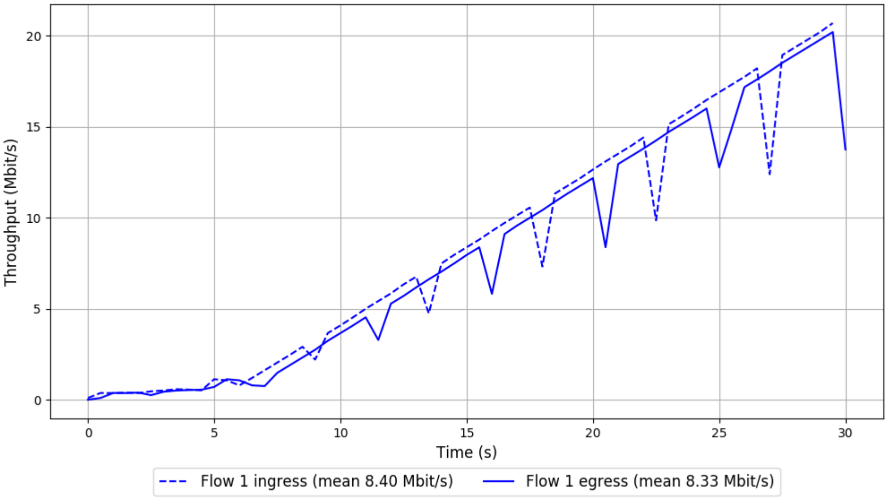
Run 9: Report of LEDBAT — Data Link

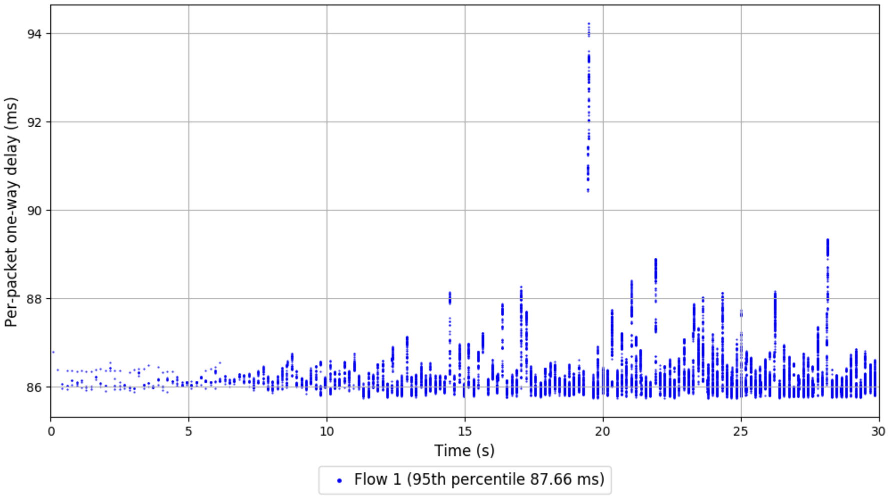




```
Run 10: Statistics of LEDBAT

Start at: 2018-08-01 15:41:53
End at: 2018-08-01 15:42:23
Local clock offset: -0.092 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 87.663 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 87.663 ms
Loss rate: 1.38%
```

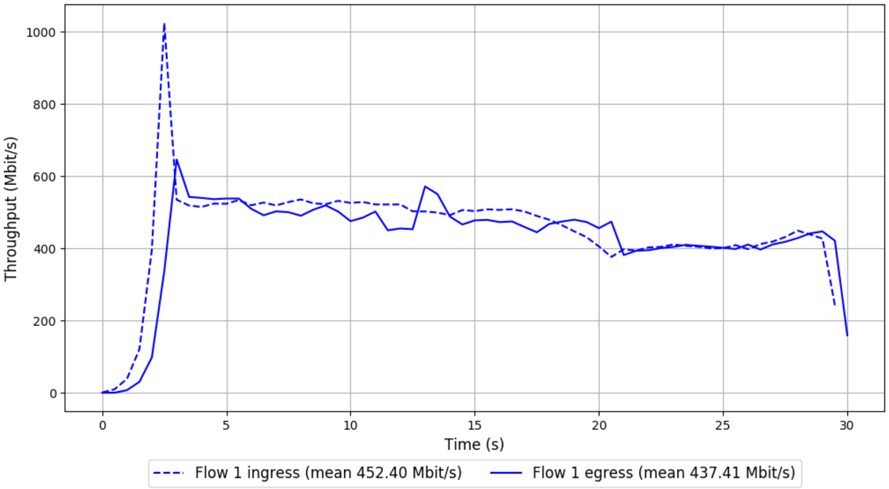
Run 10: Report of LEDBAT — Data Link

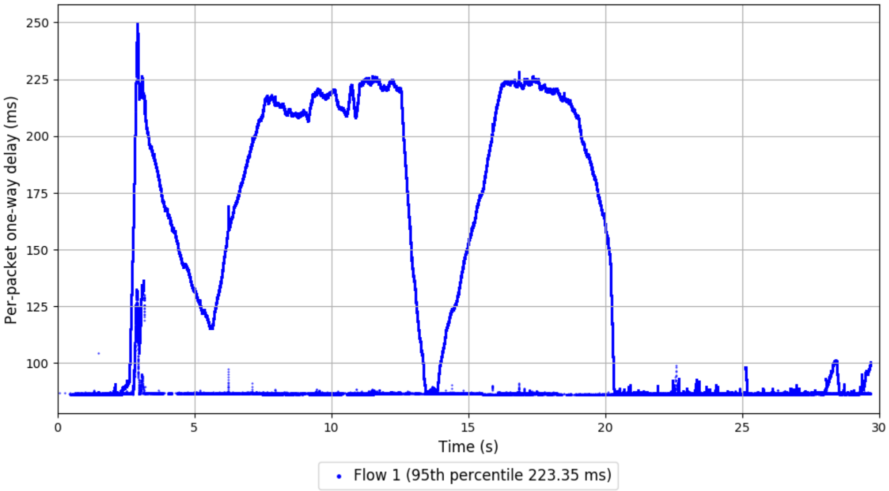




```
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-01 12:16:37
End at: 2018-08-01 12:17:07
Local clock offset: -0.015 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 437.41 Mbit/s
95th percentile per-packet one-way delay: 223.348 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 437.41 Mbit/s
95th percentile per-packet one-way delay: 223.348 ms
Loss rate: 3.88%
```

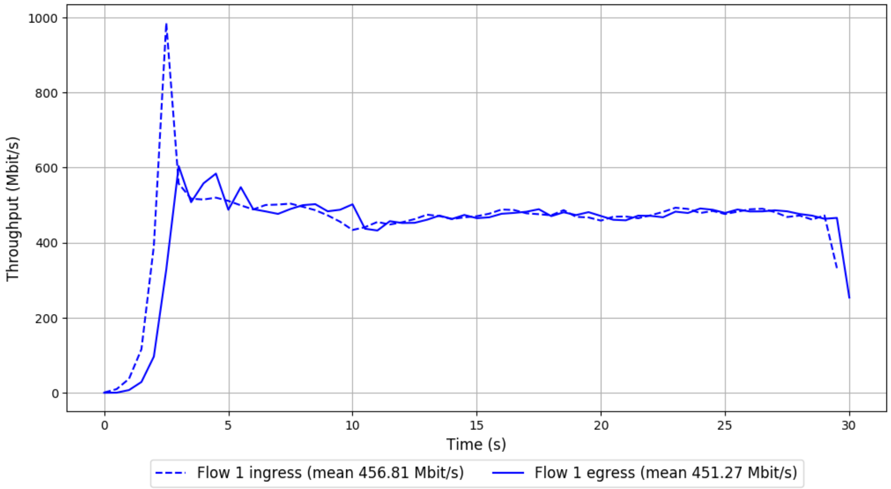
Run 1: Report of PCC-Allegro — Data Link

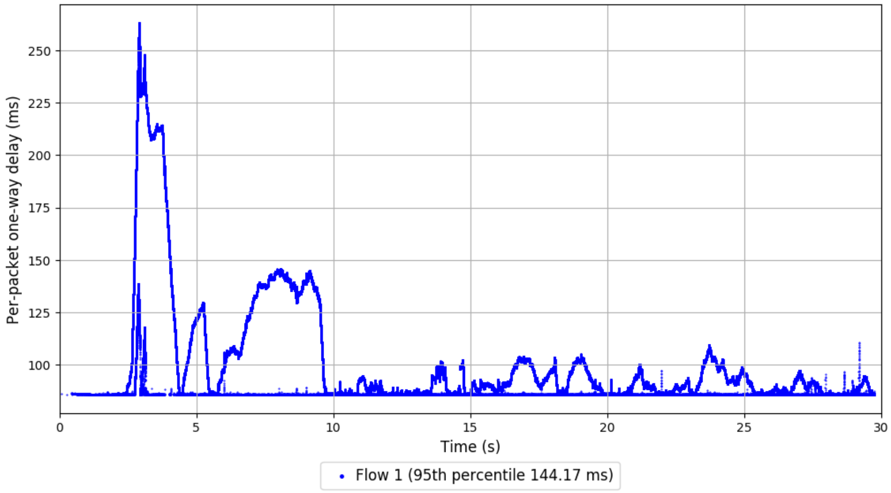




```
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-01 12:38:48
End at: 2018-08-01 12:39:18
Local clock offset: -0.071 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 451.27 Mbit/s
95th percentile per-packet one-way delay: 144.168 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 451.27 Mbit/s
95th percentile per-packet one-way delay: 144.168 ms
Loss rate: 1.78%
```

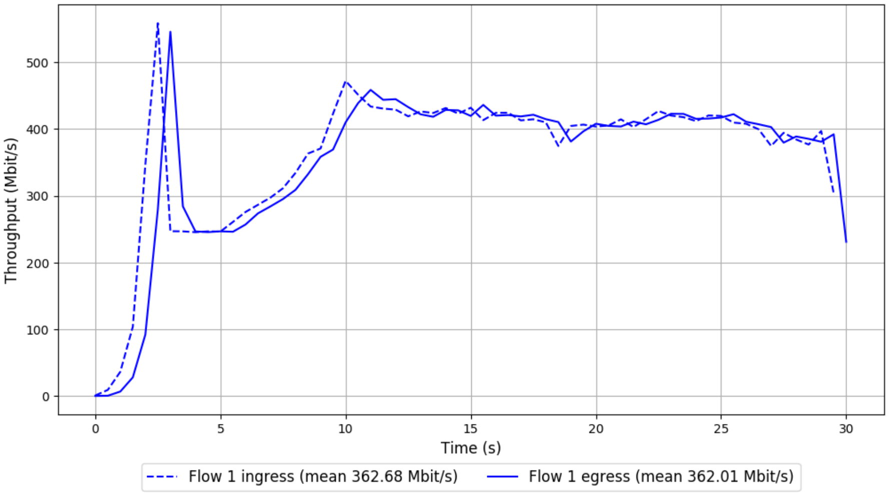
Run 2: Report of PCC-Allegro — Data Link

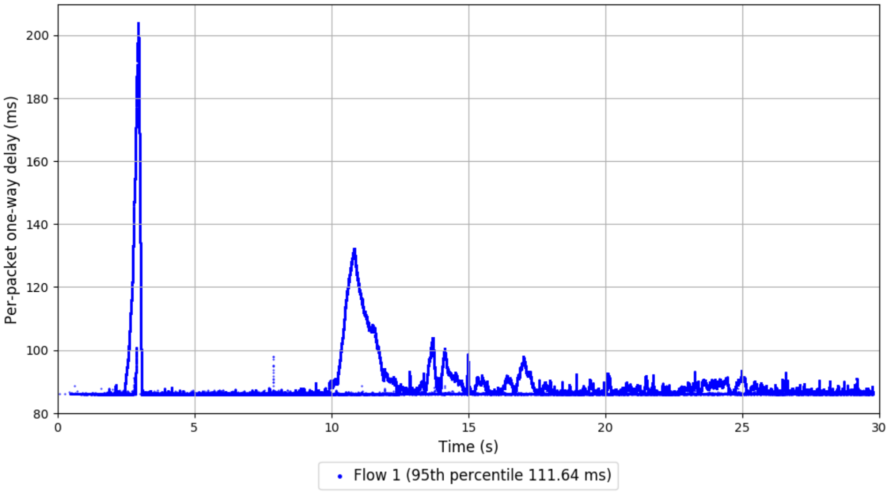




```
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-01 13:01:06
End at: 2018-08-01 13:01:36
Local clock offset: 0.115 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 362.01 Mbit/s
95th percentile per-packet one-way delay: 111.635 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 362.01 Mbit/s
95th percentile per-packet one-way delay: 111.635 ms
Loss rate: 0.76%
```

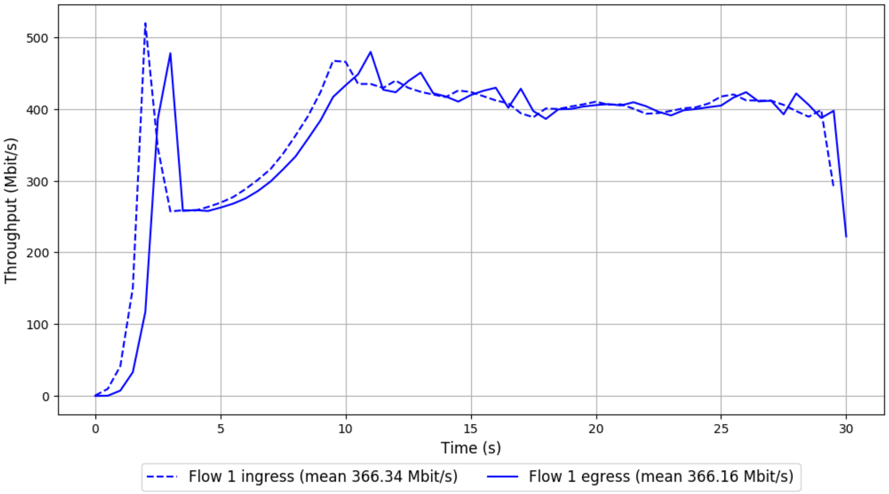
Run 3: Report of PCC-Allegro — Data Link

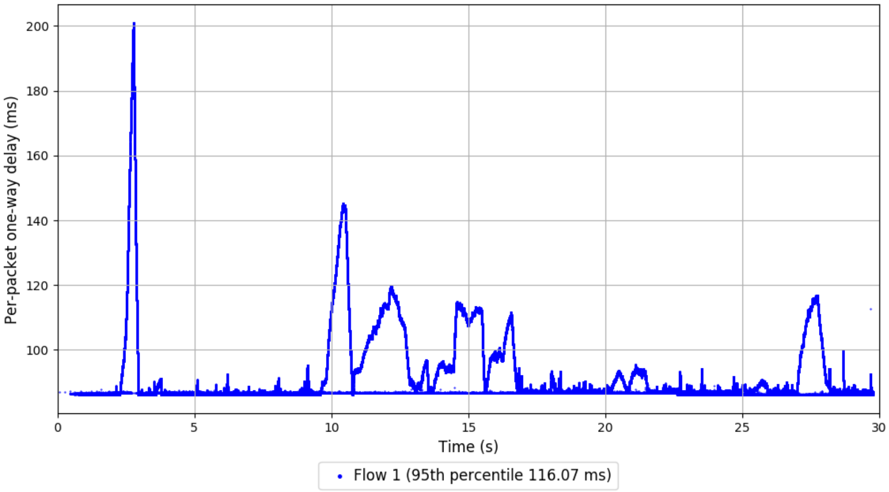




```
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-01 13:23:06
End at: 2018-08-01 13:23:36
Local clock offset: 0.253 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.16 Mbit/s
95th percentile per-packet one-way delay: 116.072 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 366.16 Mbit/s
95th percentile per-packet one-way delay: 116.072 ms
Loss rate: 0.63%
```

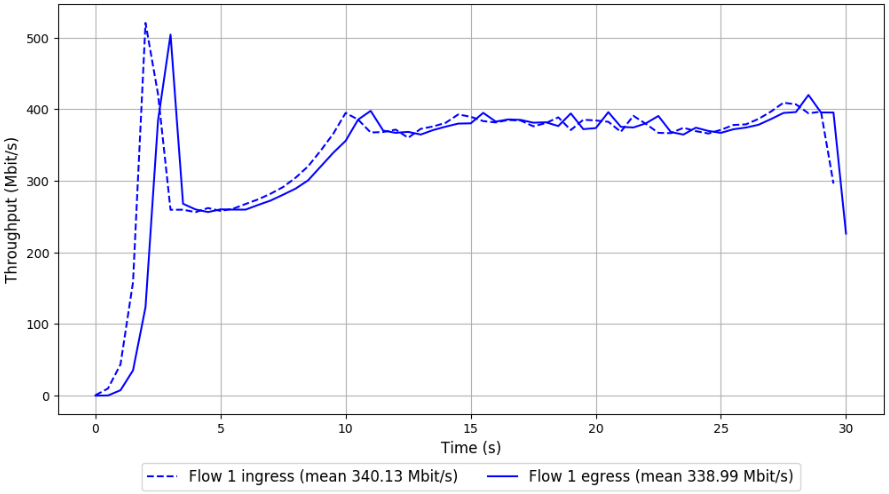
Run 4: Report of PCC-Allegro — Data Link

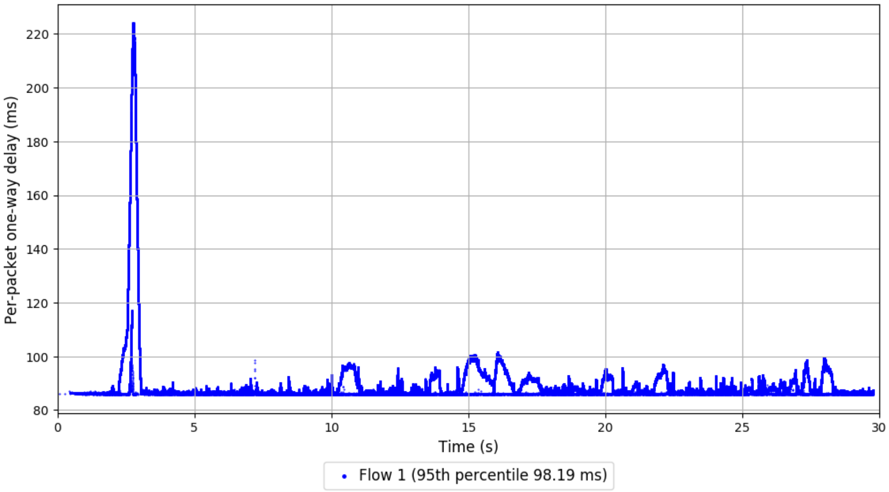




```
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-01 13:45:21
End at: 2018-08-01 13:45:51
Local clock offset: -0.094 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 338.99 Mbit/s
95th percentile per-packet one-way delay: 98.193 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 338.99 Mbit/s
95th percentile per-packet one-way delay: 98.193 ms
Loss rate: 0.91%
```

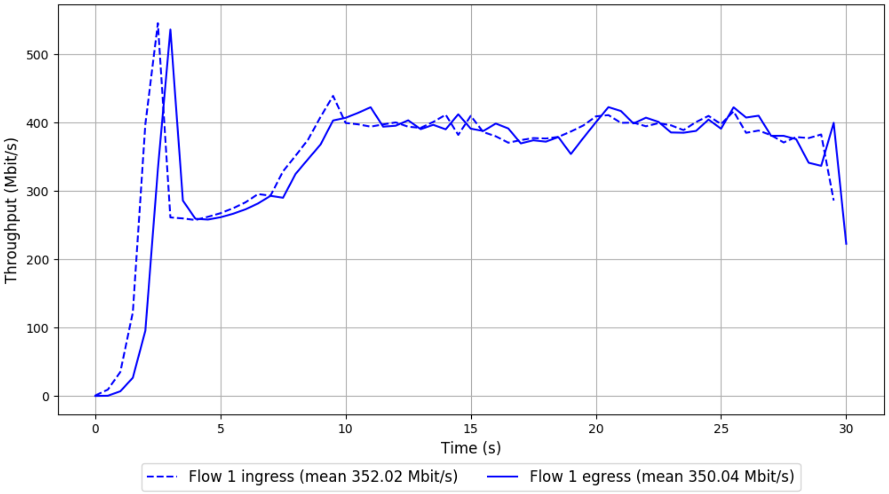
Run 5: Report of PCC-Allegro — Data Link

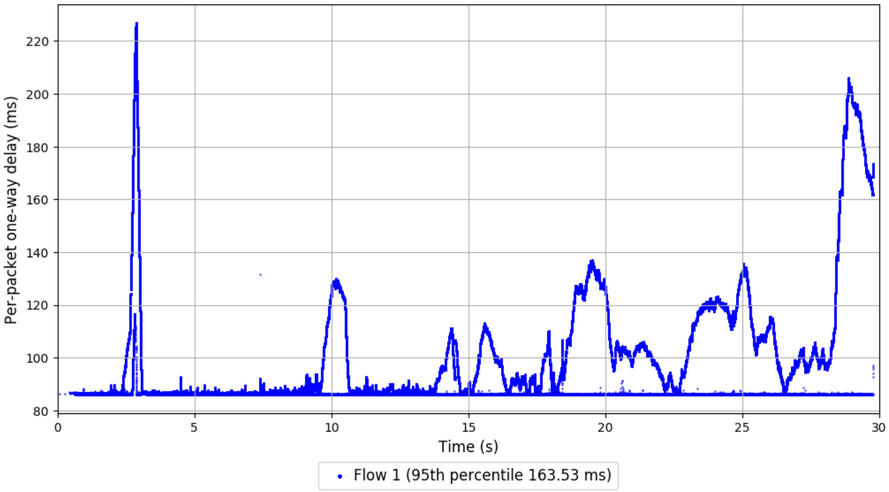




```
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-01 14:07:48
End at: 2018-08-01 14:08:18
Local clock offset: 0.188 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-08-01 17:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 350.04 Mbit/s
95th percentile per-packet one-way delay: 163.531 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 350.04 Mbit/s
95th percentile per-packet one-way delay: 163.531 ms
Loss rate: 1.14%
```

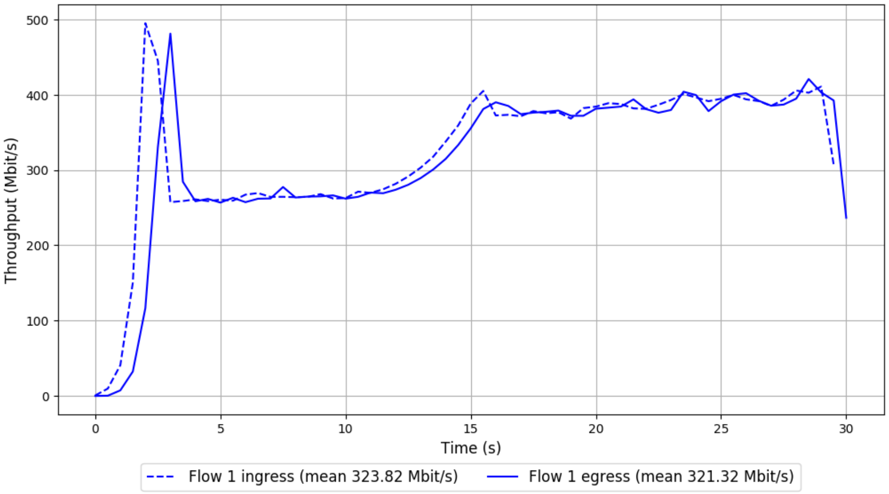
Run 6: Report of PCC-Allegro — Data Link

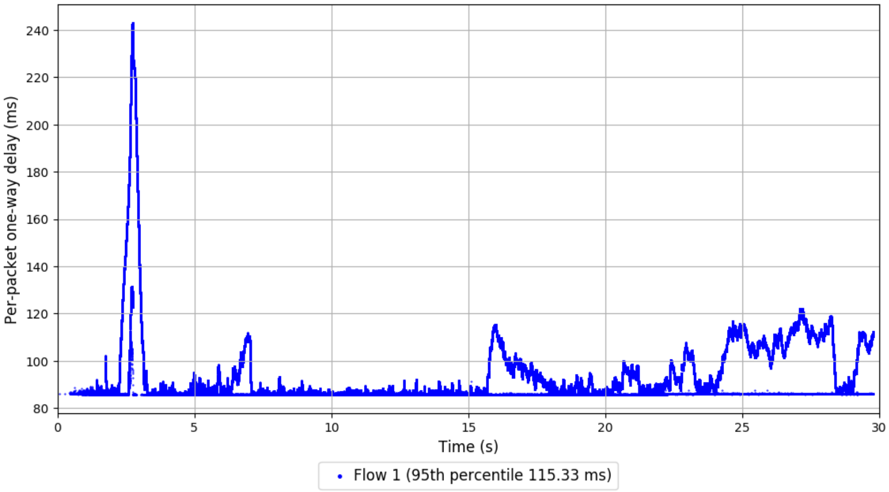




```
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-01 14:30:00
End at: 2018-08-01 14:30:30
Local clock offset: -0.028 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-08-01 17:09:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.32 Mbit/s
95th percentile per-packet one-way delay: 115.331 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 321.32 Mbit/s
95th percentile per-packet one-way delay: 115.331 ms
Loss rate: 1.35%
```

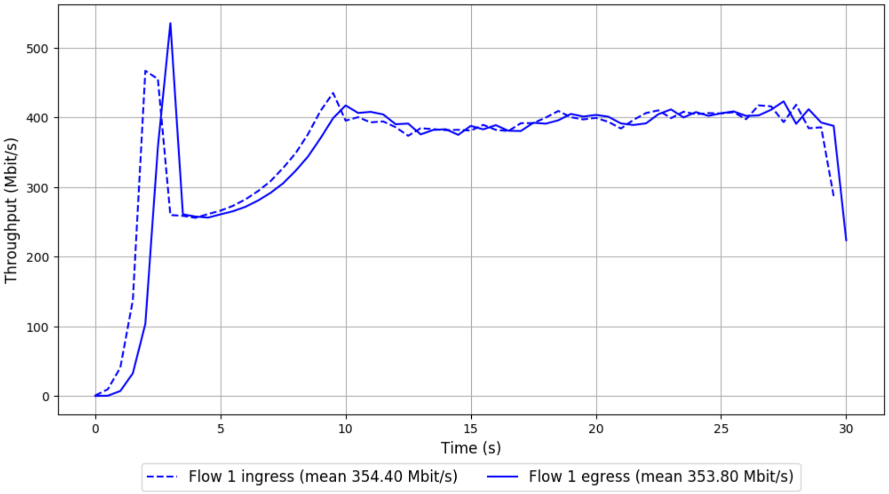
Run 7: Report of PCC-Allegro — Data Link

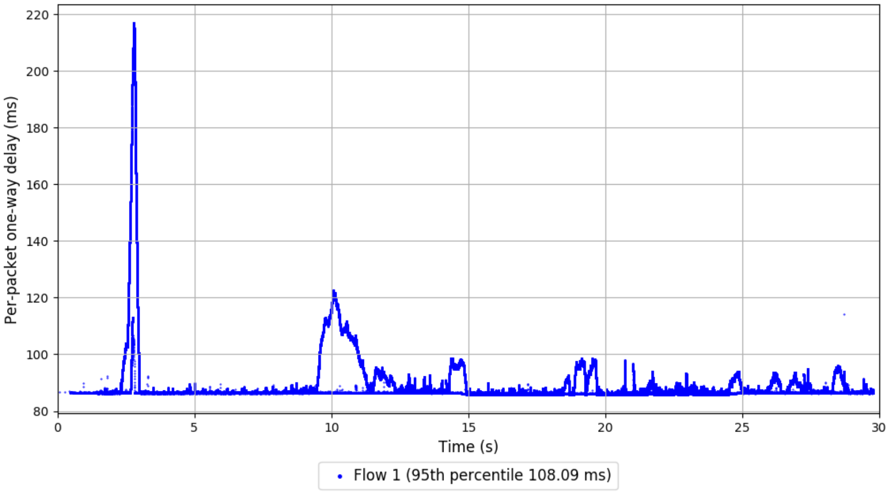




```
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-01 14:52:14
End at: 2018-08-01 14:52:44
Local clock offset: -0.047 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-08-01 17:11:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 353.80 Mbit/s
95th percentile per-packet one-way delay: 108.087 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 353.80 Mbit/s
95th percentile per-packet one-way delay: 108.087 ms
Loss rate: 0.75%
```

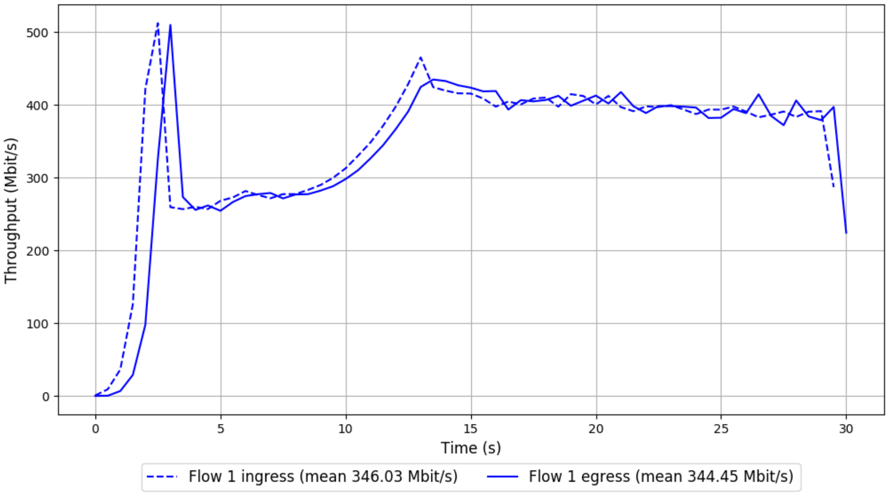
Run 8: Report of PCC-Allegro — Data Link

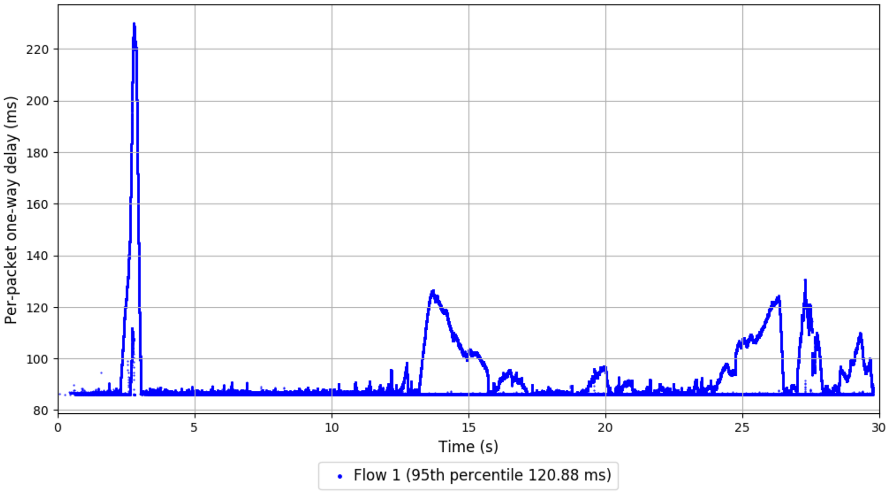




```
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-01 15:14:22
End at: 2018-08-01 15:14:52
Local clock offset: 0.23 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-01 17:11:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 344.45 Mbit/s
95th percentile per-packet one-way delay: 120.878 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 344.45 Mbit/s
95th percentile per-packet one-way delay: 120.878 ms
Loss rate: 1.03%
```

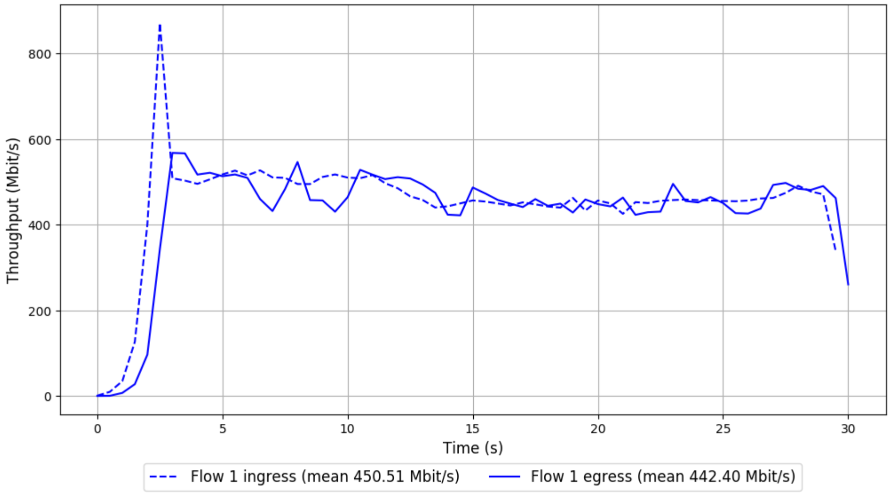
Run 9: Report of PCC-Allegro — Data Link

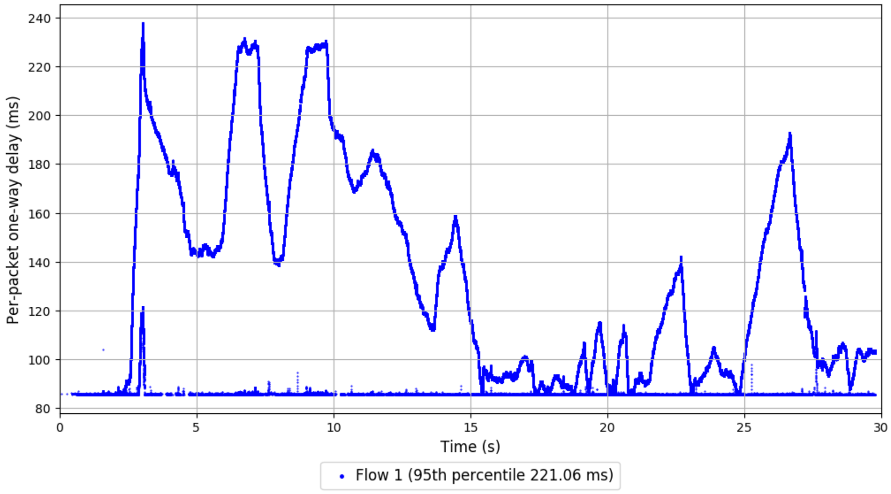




```
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-01 15:36:15
End at: 2018-08-01 15:36:45
Local clock offset: -0.178 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-08-01 17:12:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 442.40 Mbit/s
95th percentile per-packet one-way delay: 221.055 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 442.40 Mbit/s
95th percentile per-packet one-way delay: 221.055 ms
Loss rate: 2.37%
```

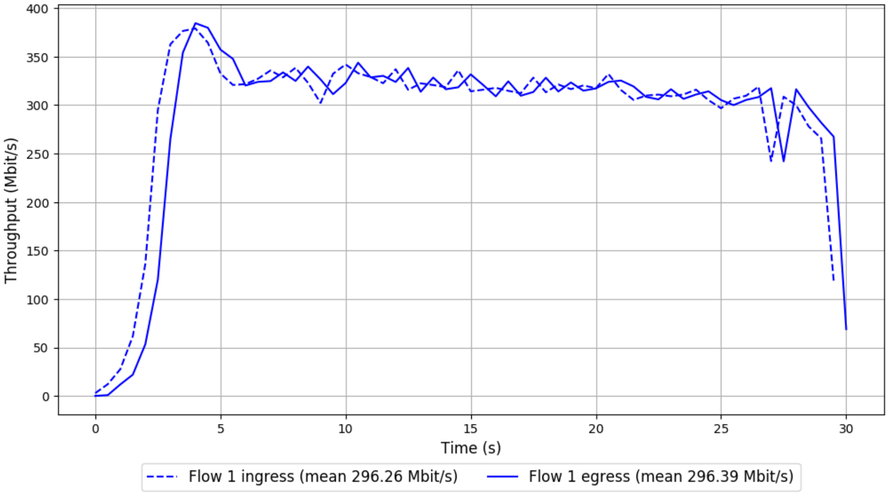
Run 10: Report of PCC-Allegro — Data Link

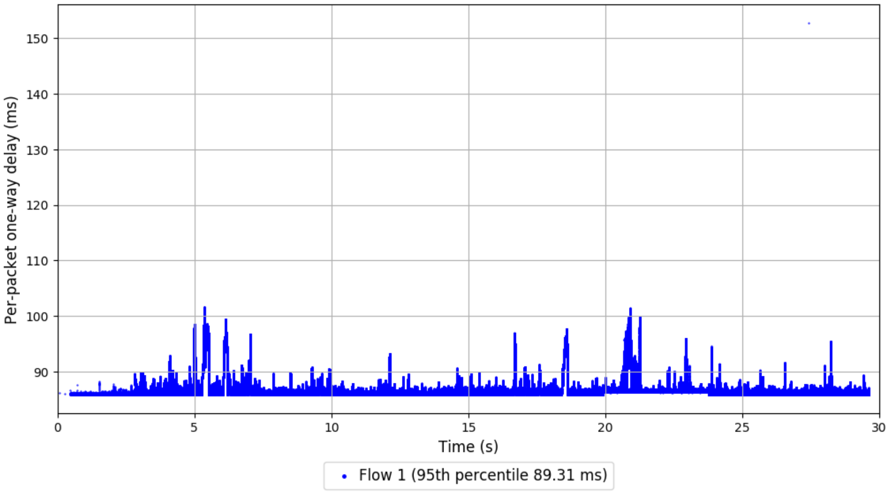




```
Run 1: Statistics of PCC-Expr

Start at: 2018-08-01 12:30:19
End at: 2018-08-01 12:30:49
Local clock offset: 0.031 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2018-08-01 17:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 296.39 Mbit/s
95th percentile per-packet one-way delay: 89.305 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 296.39 Mbit/s
95th percentile per-packet one-way delay: 89.305 ms
Loss rate: 0.54%
```

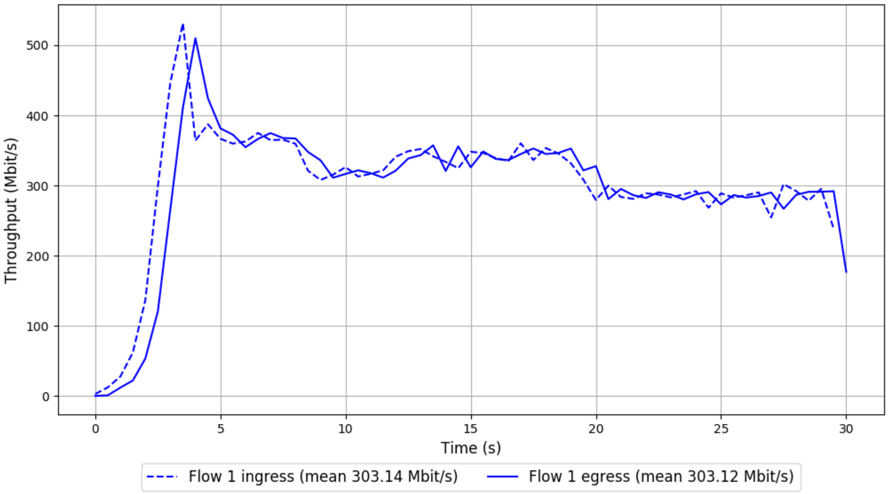
Run 1: Report of PCC-Expr — Data Link

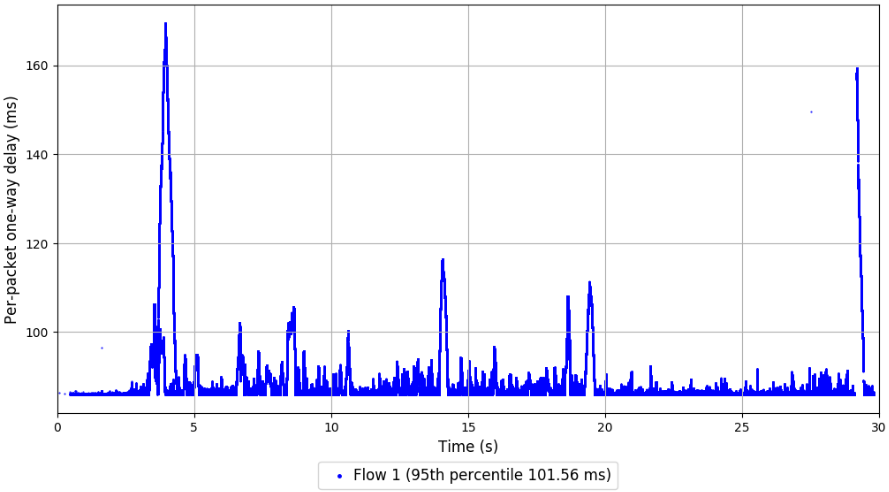




```
Run 2: Statistics of PCC-Expr

Start at: 2018-08-01 12:52:30
End at: 2018-08-01 12:53:00
Local clock offset: 0.162 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-08-01 17:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.12 Mbit/s
95th percentile per-packet one-way delay: 101.559 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 303.12 Mbit/s
95th percentile per-packet one-way delay: 101.559 ms
Loss rate: 0.58%
```

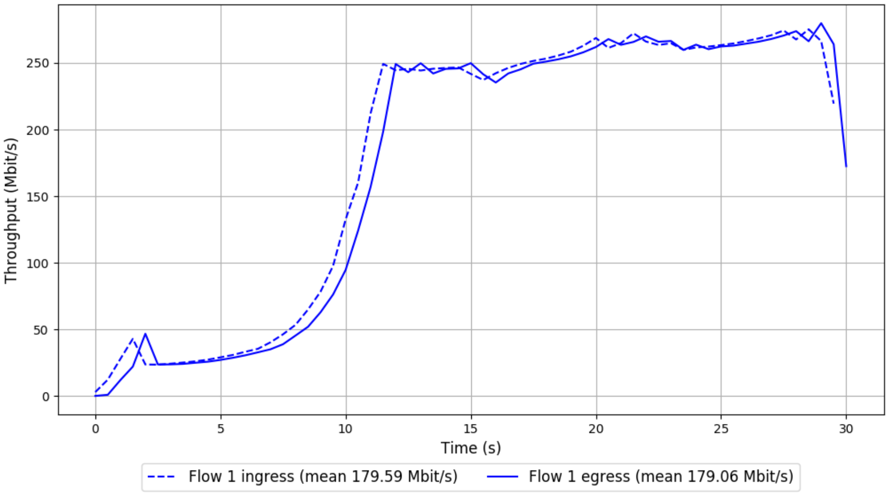
Run 2: Report of PCC-Expr — Data Link

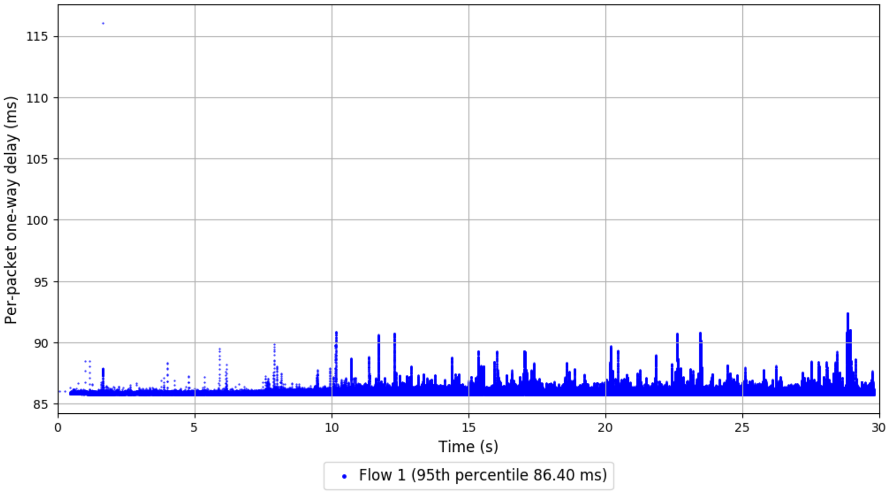




```
Run 3: Statistics of PCC-Expr

Start at: 2018-08-01 13:14:31
End at: 2018-08-01 13:15:01
Local clock offset: 0.046 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-08-01 17:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.06 Mbit/s
95th percentile per-packet one-way delay: 86.400 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 179.06 Mbit/s
95th percentile per-packet one-way delay: 86.400 ms
Loss rate: 0.87%
```

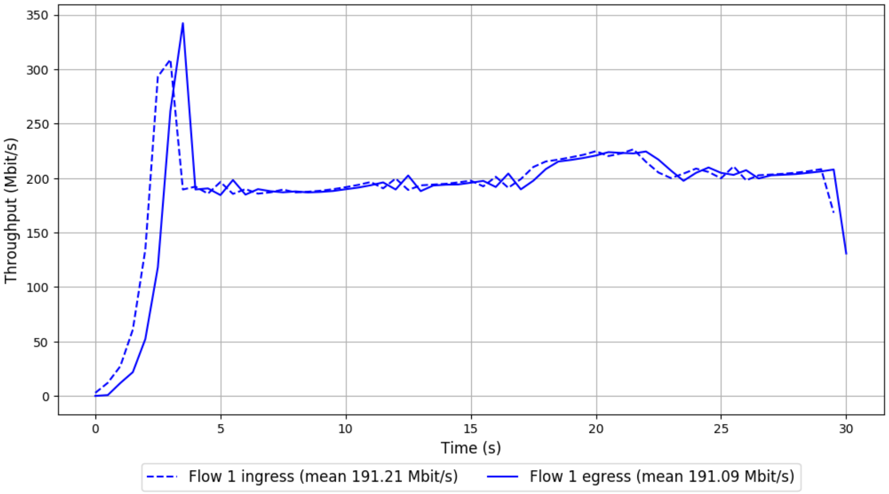
Run 3: Report of PCC-Expr — Data Link

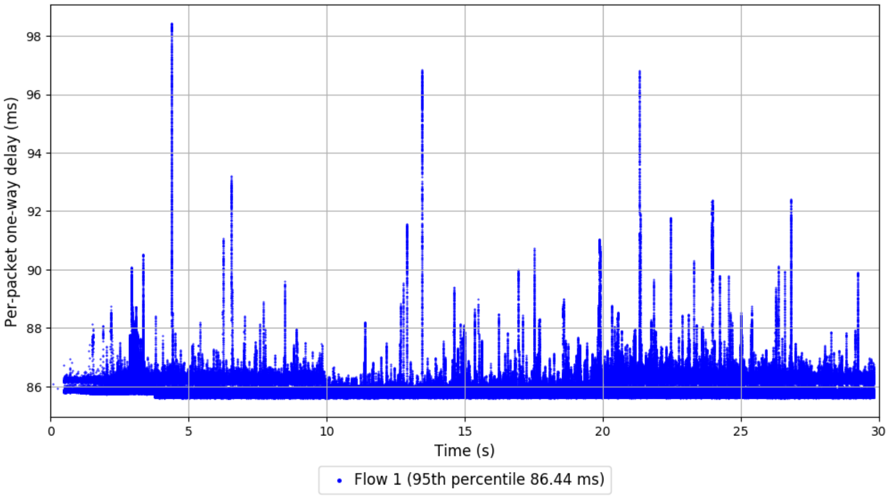




```
Run 4: Statistics of PCC-Expr

Start at: 2018-08-01 13:36:49
End at: 2018-08-01 13:37:19
Local clock offset: -0.159 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-08-01 17:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.09 Mbit/s
95th percentile per-packet one-way delay: 86.440 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 191.09 Mbit/s
95th percentile per-packet one-way delay: 86.440 ms
Loss rate: 0.64%
```

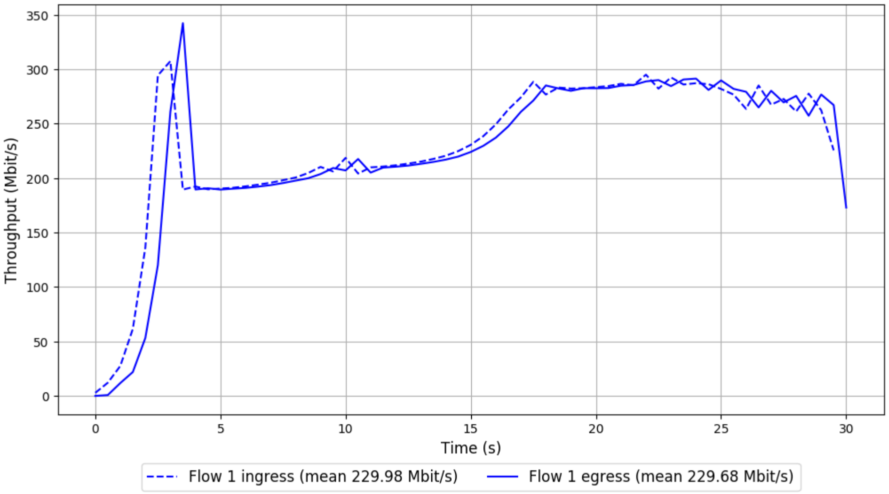
Run 4: Report of PCC-Expr — Data Link

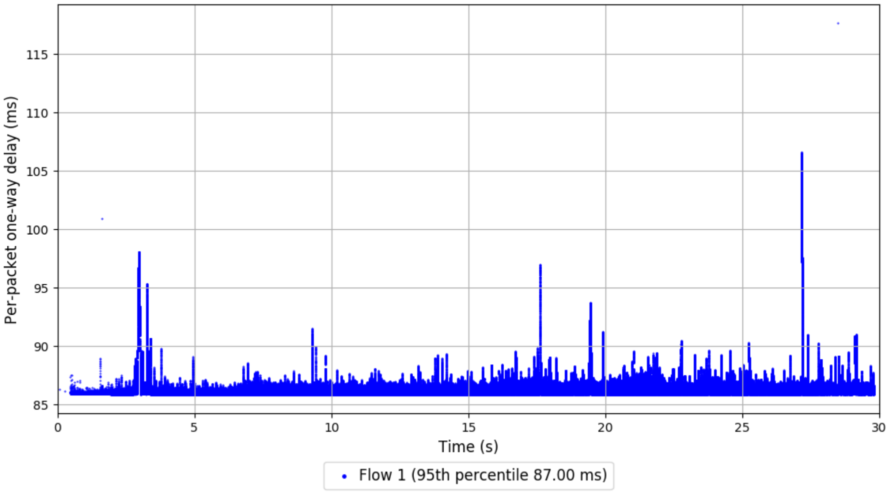




```
Run 5: Statistics of PCC-Expr

Start at: 2018-08-01 13:59:12
End at: 2018-08-01 13:59:42
Local clock offset: 0.086 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-08-01 17:17:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.68 Mbit/s
95th percentile per-packet one-way delay: 86.999 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 229.68 Mbit/s
95th percentile per-packet one-way delay: 86.999 ms
Loss rate: 0.71%
```

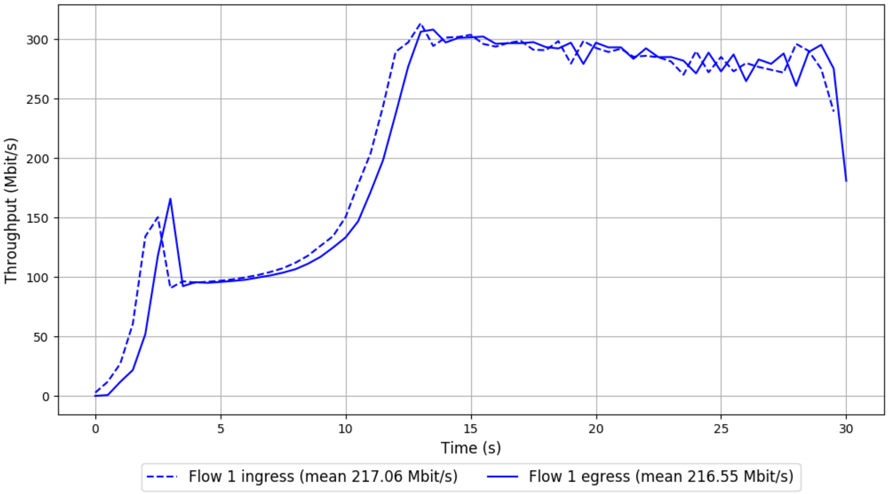
Run 5: Report of PCC-Expr — Data Link

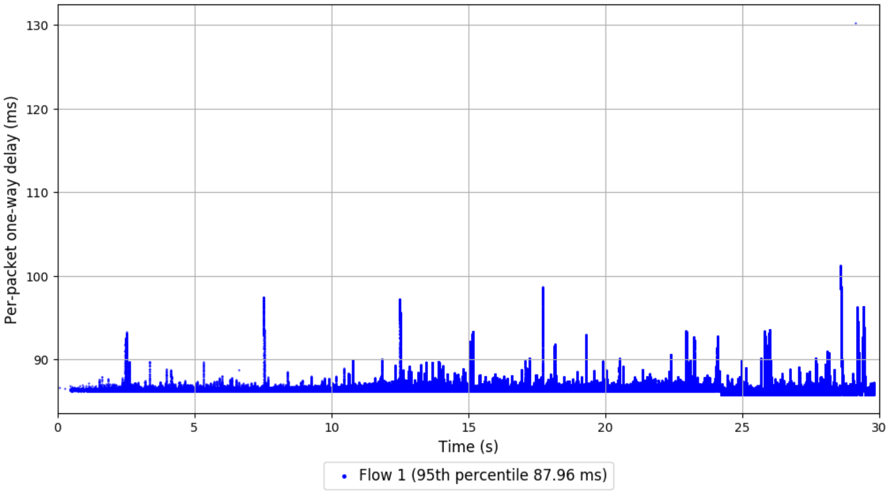




```
Run 6: Statistics of PCC-Expr

Start at: 2018-08-01 14:21:24
End at: 2018-08-01 14:21:55
Local clock offset: -0.007 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-08-01 17:18:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.55 Mbit/s
95th percentile per-packet one-way delay: 87.963 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 216.55 Mbit/s
95th percentile per-packet one-way delay: 87.963 ms
Loss rate: 0.81%
```

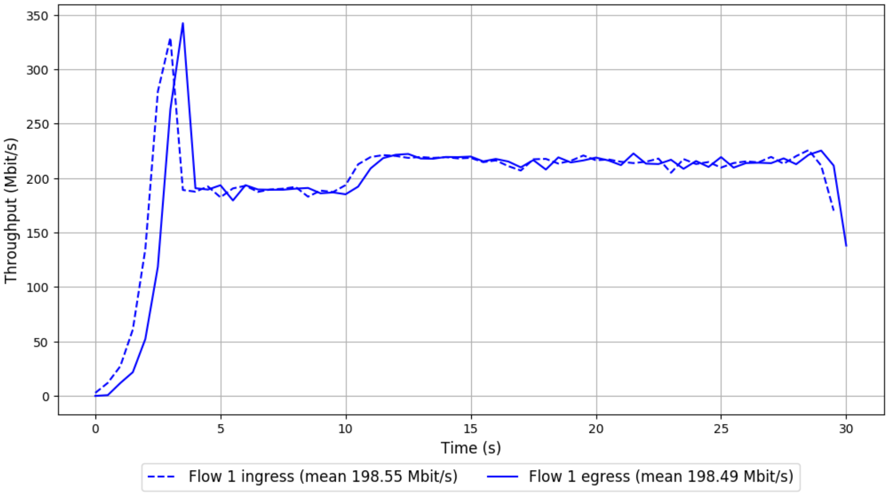
Run 6: Report of PCC-Expr — Data Link

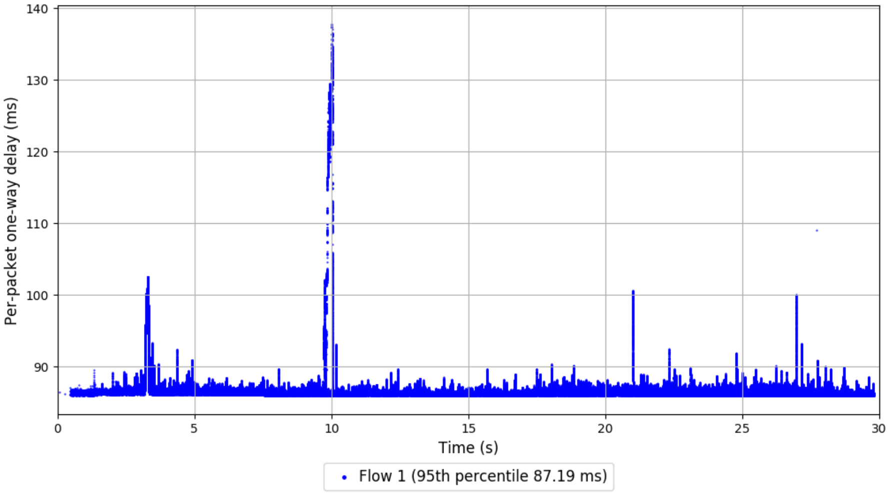




```
Run 7: Statistics of PCC-Expr

Start at: 2018-08-01 14:43:41
End at: 2018-08-01 14:44:11
Local clock offset: 0.172 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-08-01 17:18:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.49 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 198.49 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 0.61%
```

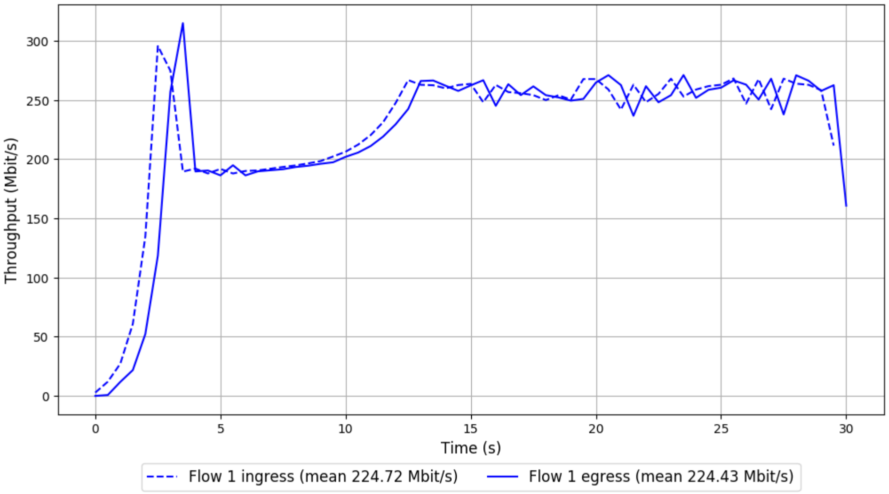
Run 7: Report of PCC-Expr — Data Link

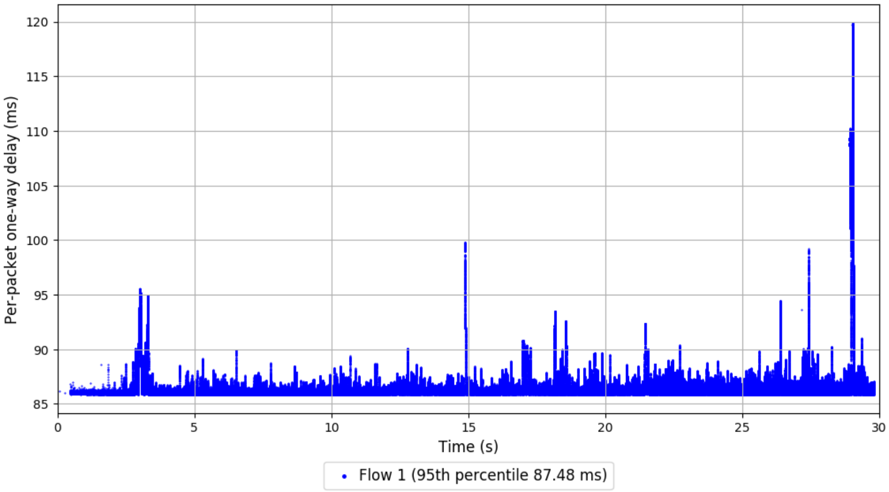




```
Run 8: Statistics of PCC-Expr

Start at: 2018-08-01 15:05:47
End at: 2018-08-01 15:06:17
Local clock offset: 0.136 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-08-01 17:20:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.43 Mbit/s
95th percentile per-packet one-way delay: 87.485 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 224.43 Mbit/s
95th percentile per-packet one-way delay: 87.485 ms
Loss rate: 0.70%
```

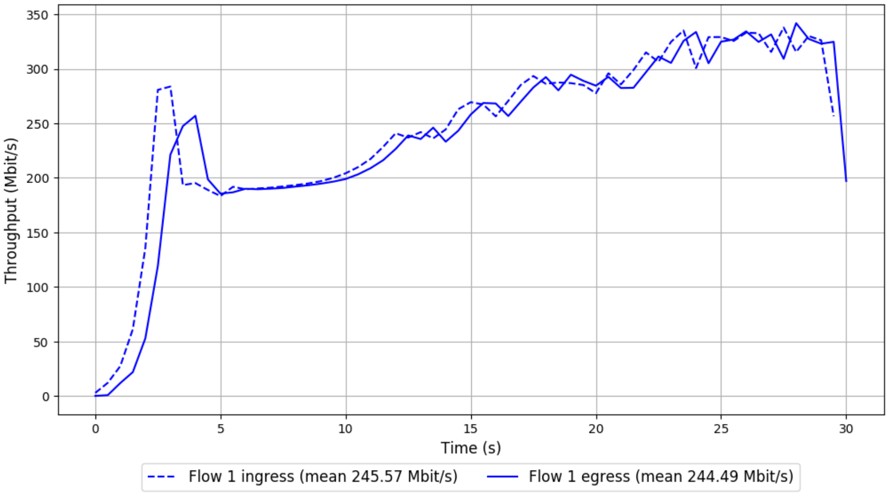
Run 8: Report of PCC-Expr — Data Link

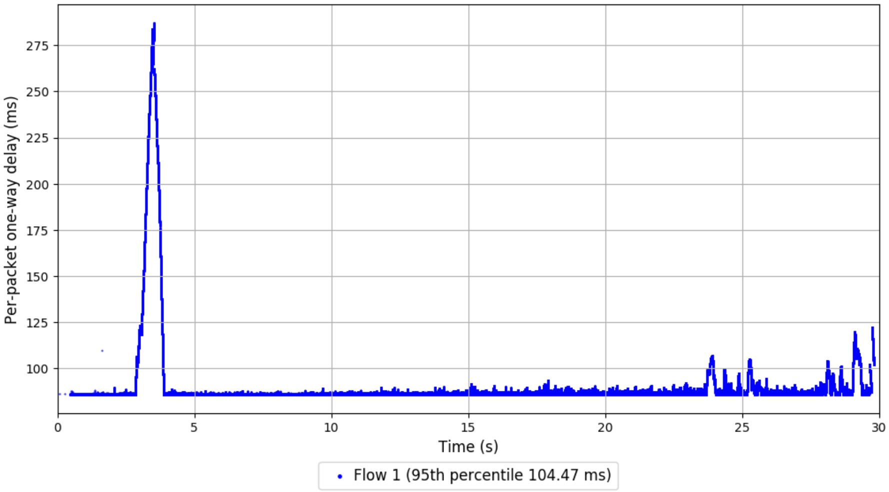




```
Run 9: Statistics of PCC-Expr

Start at: 2018-08-01 15:27:39
End at: 2018-08-01 15:28:09
Local clock offset: -0.039 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2018-08-01 17:21:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.49 Mbit/s
95th percentile per-packet one-way delay: 104.468 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 244.49 Mbit/s
95th percentile per-packet one-way delay: 104.468 ms
Loss rate: 1.02%
```

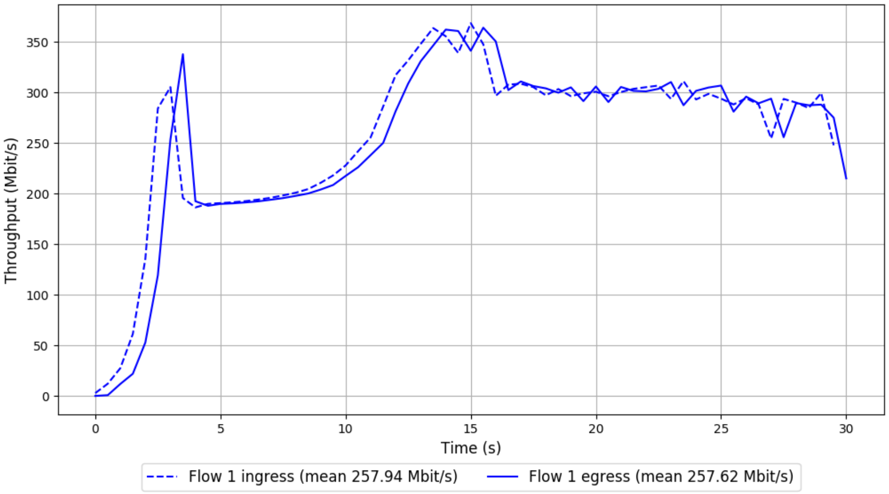
Run 9: Report of PCC-Expr — Data Link

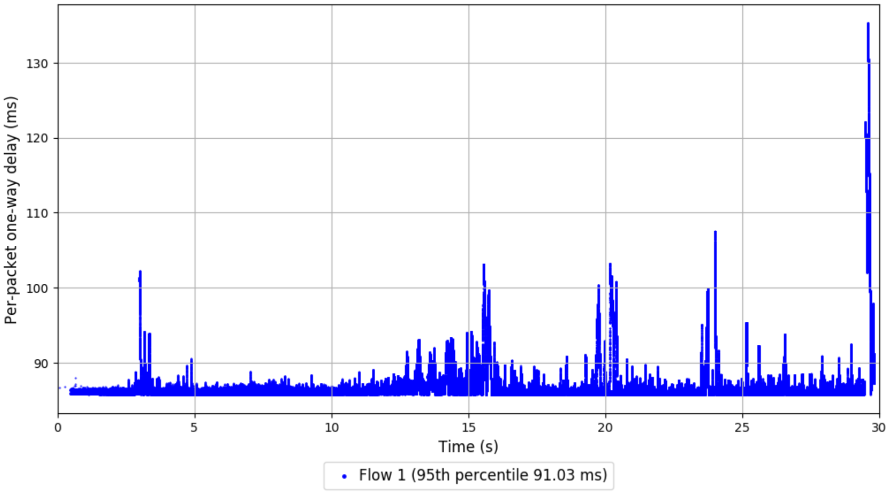




```
Run 10: Statistics of PCC-Expr

Start at: 2018-08-01 15:49:59
End at: 2018-08-01 15:50:29
Local clock offset: 0.016 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.62 Mbit/s
95th percentile per-packet one-way delay: 91.030 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 257.62 Mbit/s
95th percentile per-packet one-way delay: 91.030 ms
Loss rate: 0.70%
```

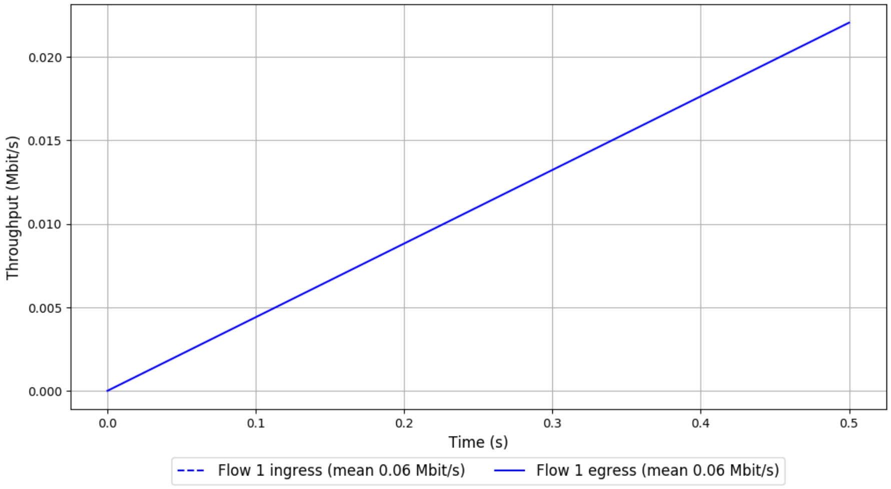
Run 10: Report of PCC-Expr — Data Link

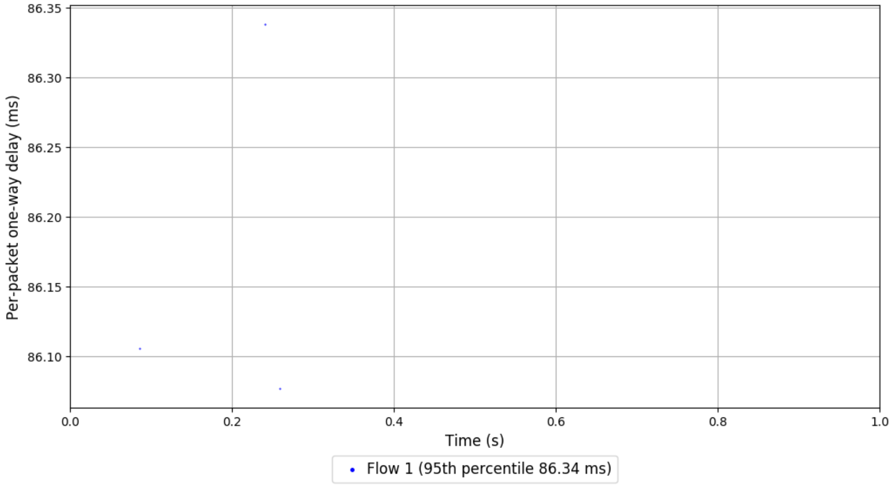




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-01 12:27:49
End at: 2018-08-01 12:28:19
Local clock offset: 0.033 ms
Remote clock offset: -0.097 ms
```

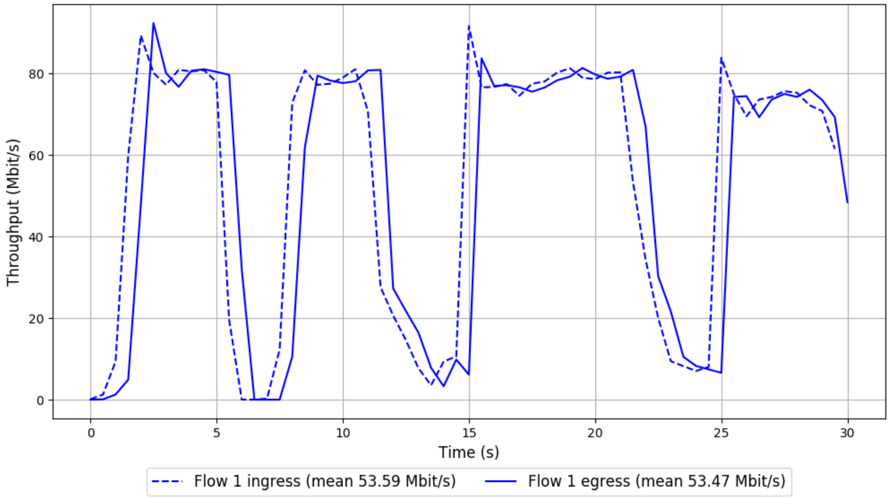
Run 1: Report of QUIC Cubic — Data Link

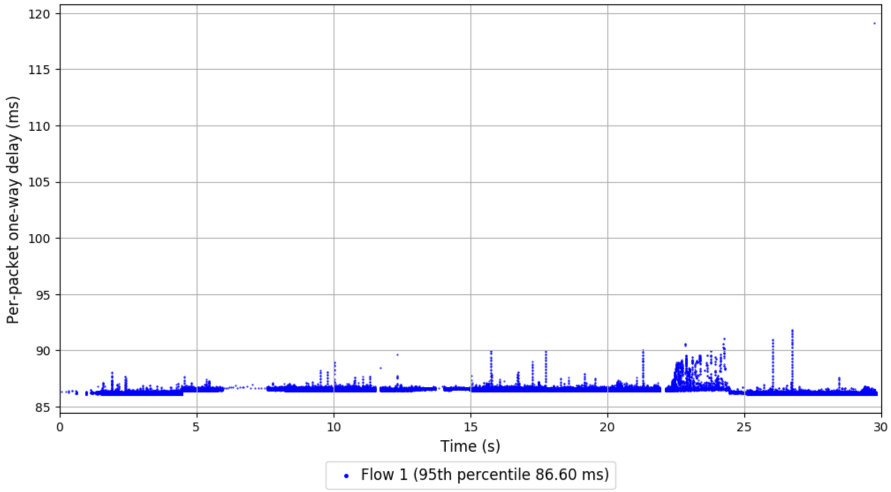




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-01 12:49:58
End at: 2018-08-01 12:50:28
Local clock offset: 0.254 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 86.604 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 86.604 ms
Loss rate: 0.81%
```

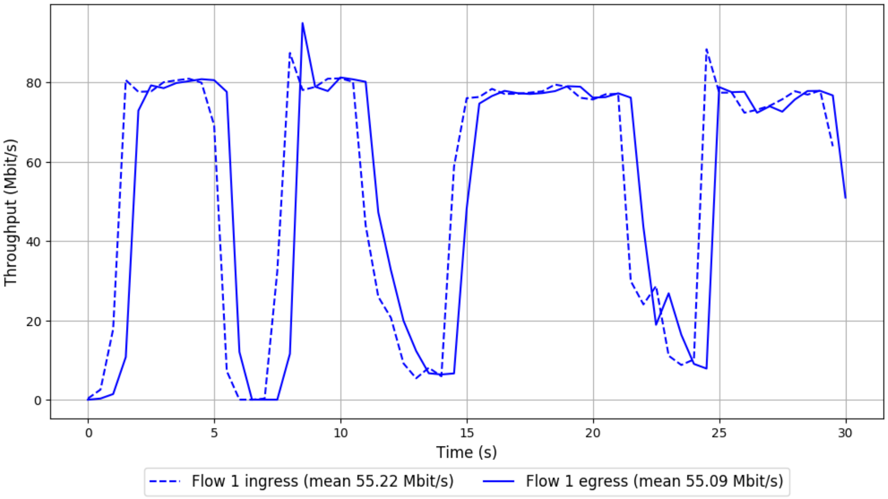
Run 2: Report of QUIC Cubic — Data Link

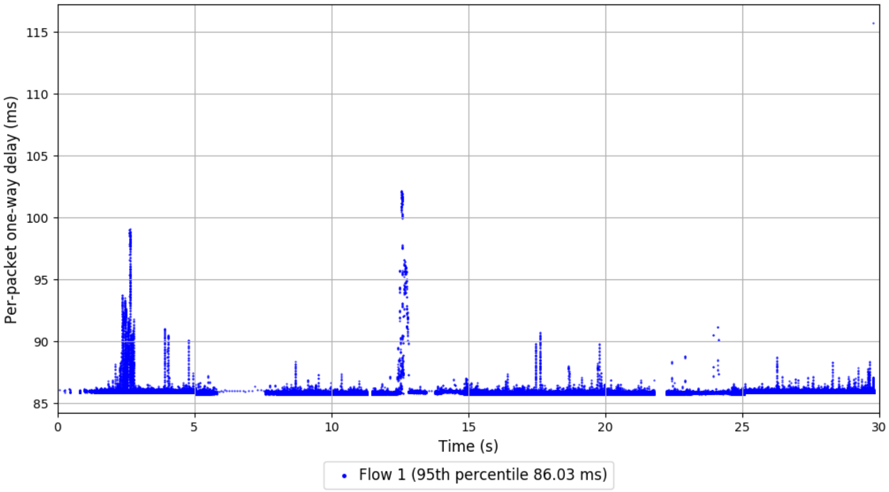




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-01 13:11:58
End at: 2018-08-01 13:12:28
Local clock offset: 0.026 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.09 Mbit/s
95th percentile per-packet one-way delay: 86.025 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 55.09 Mbit/s
95th percentile per-packet one-way delay: 86.025 ms
Loss rate: 0.81%
```

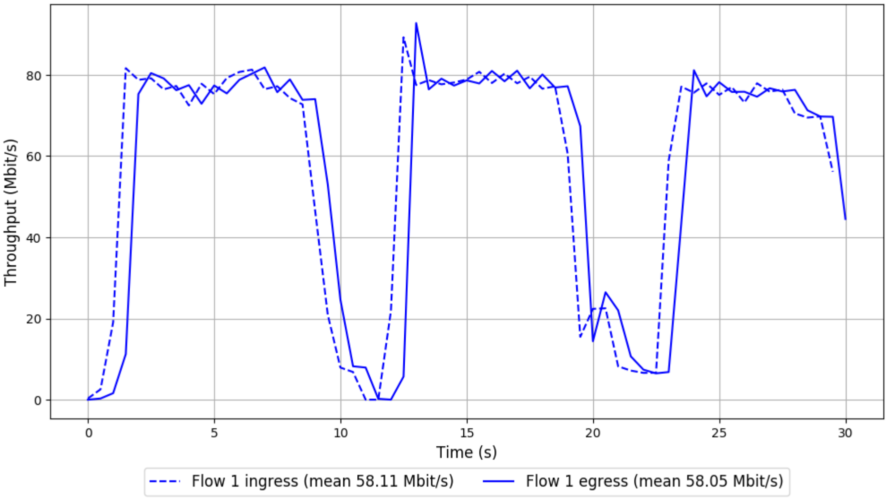
Run 3: Report of QUIC Cubic — Data Link

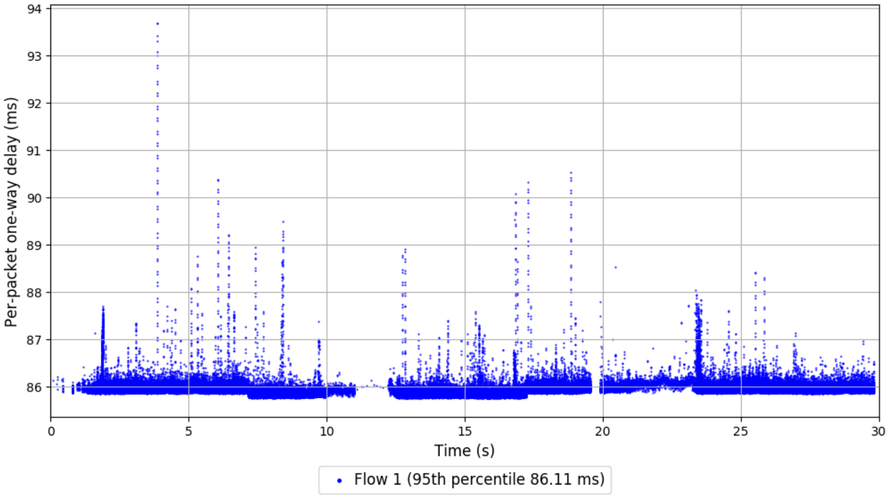




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-01 13:34:15
End at: 2018-08-01 13:34:45
Local clock offset: -0.08 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 86.109 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 86.109 ms
Loss rate: 0.69%
```

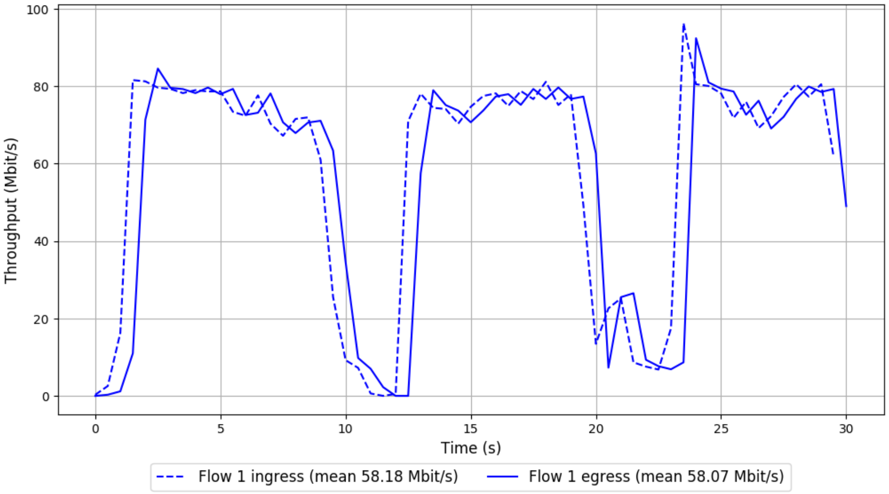
Run 4: Report of QUIC Cubic — Data Link

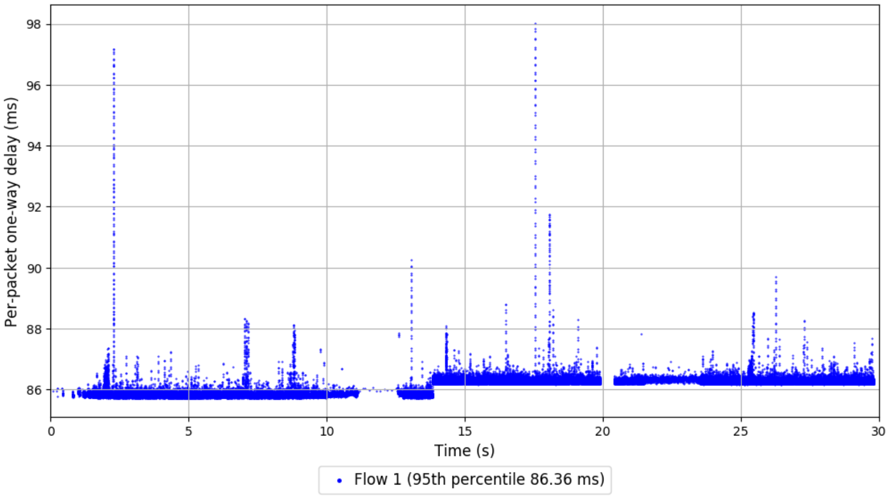




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-01 13:56:39
End at: 2018-08-01 13:57:09
Local clock offset: 0.02 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 86.360 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 86.360 ms
Loss rate: 0.76%
```

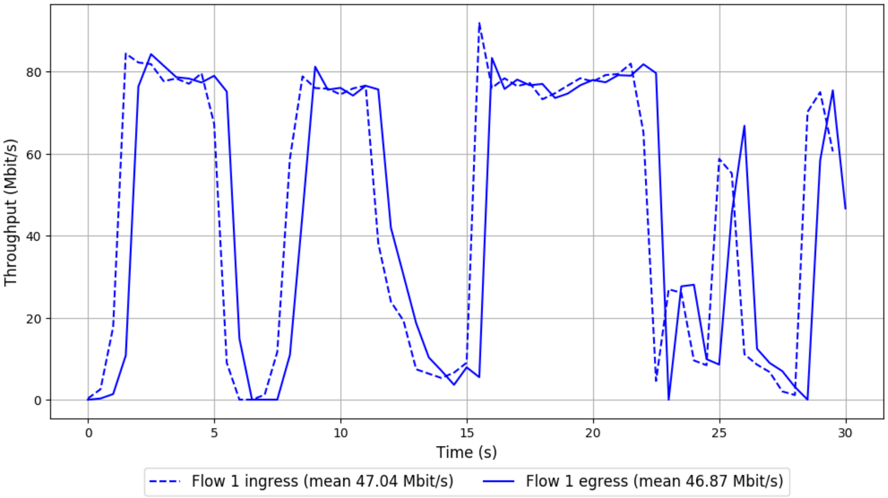
Run 5: Report of QUIC Cubic — Data Link

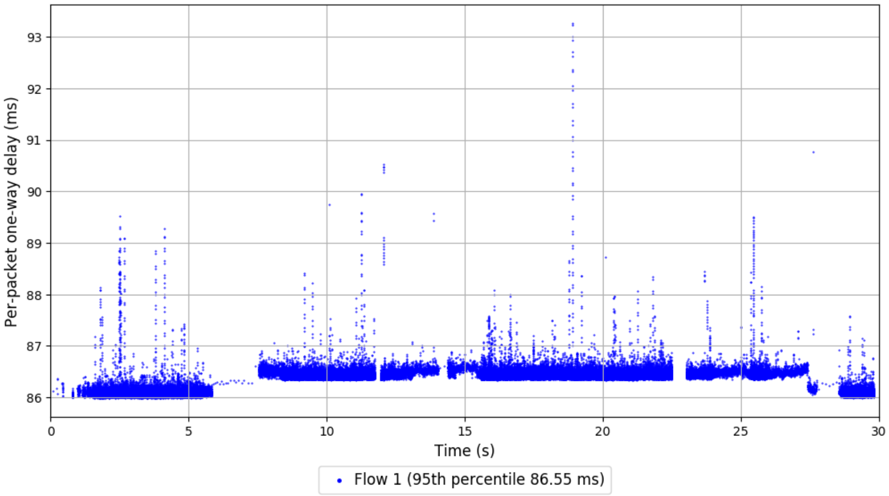




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-01 14:18:51
End at: 2018-08-01 14:19:21
Local clock offset: 0.192 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-08-01 17:23:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 86.547 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 86.547 ms
Loss rate: 0.94%
```

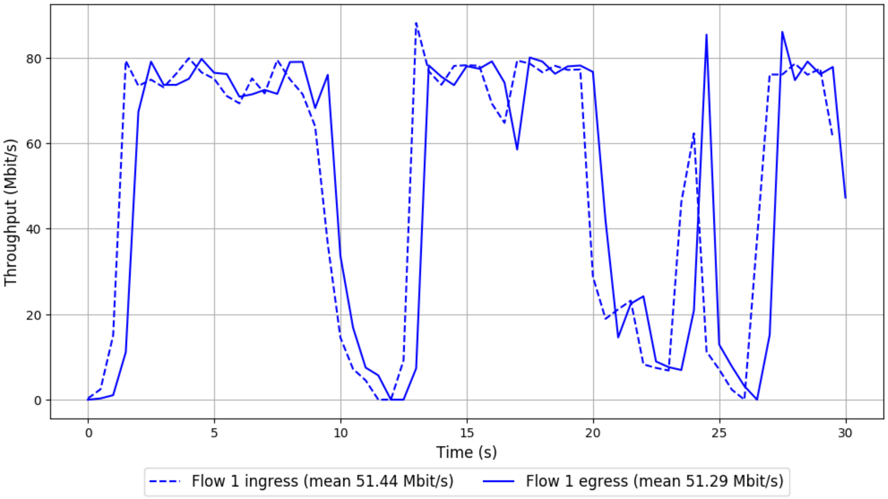
Run 6: Report of QUIC Cubic — Data Link

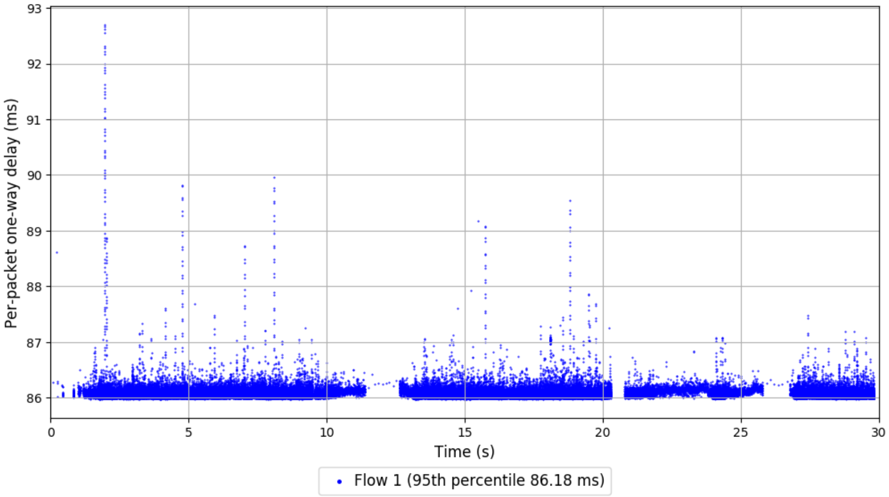




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-01 14:41:09
End at: 2018-08-01 14:41:39
Local clock offset: 0.165 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.29 Mbit/s
95th percentile per-packet one-way delay: 86.184 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 51.29 Mbit/s
95th percentile per-packet one-way delay: 86.184 ms
Loss rate: 0.87%
```

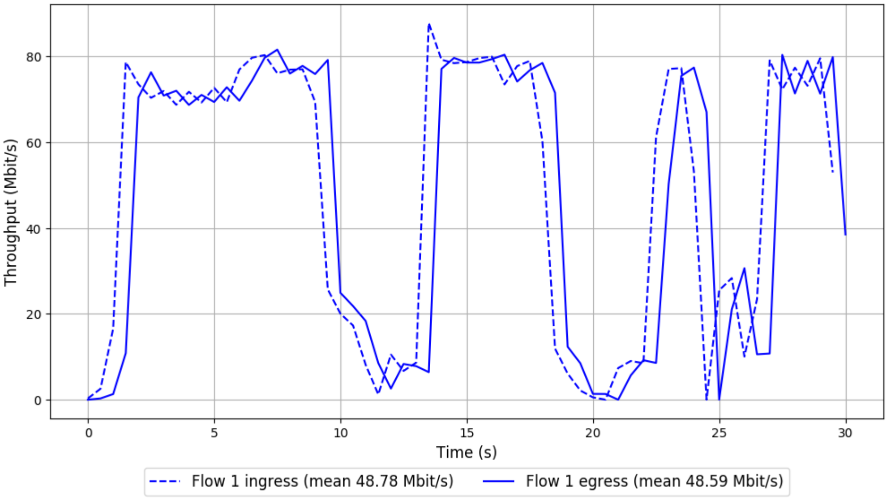
Run 7: Report of QUIC Cubic — Data Link

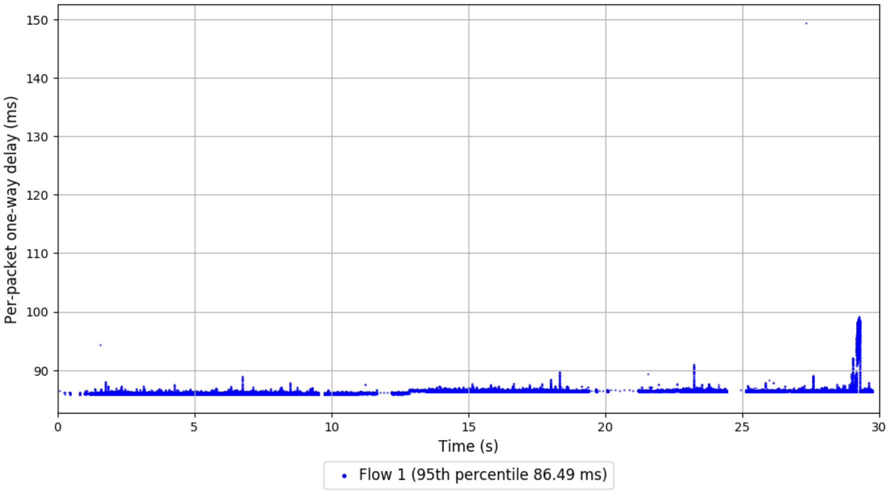




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-01 15:03:16
End at: 2018-08-01 15:03:46
Local clock offset: 0.073 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 86.490 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 86.490 ms
Loss rate: 0.97%
```

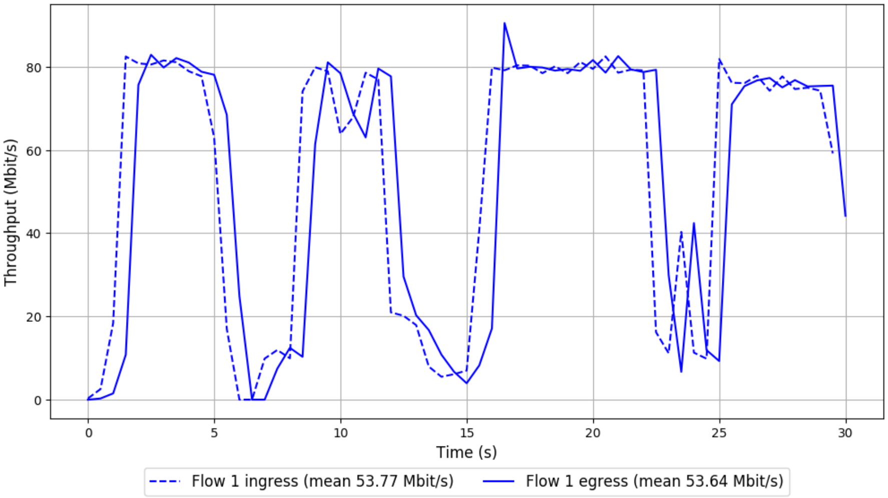
Run 8: Report of QUIC Cubic — Data Link

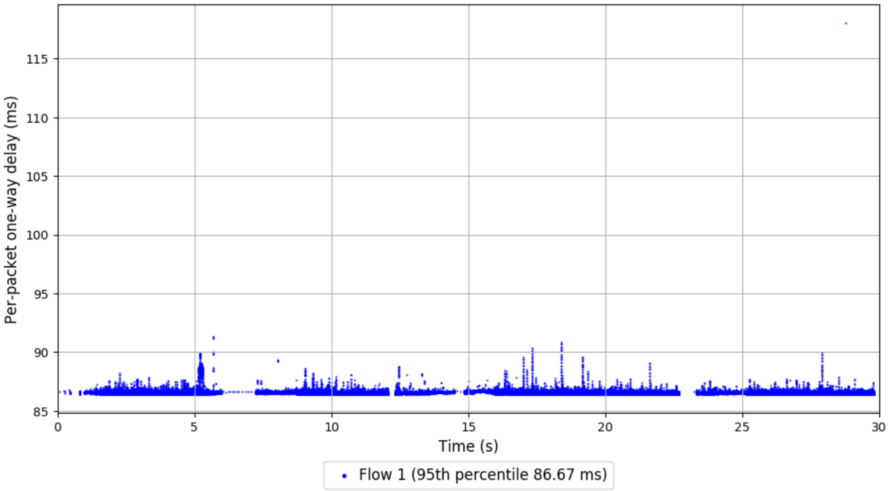




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-01 15:25:08
End at: 2018-08-01 15:25:38
Local clock offset: 0.169 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.64 Mbit/s
95th percentile per-packet one-way delay: 86.670 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 53.64 Mbit/s
95th percentile per-packet one-way delay: 86.670 ms
Loss rate: 0.83%
```

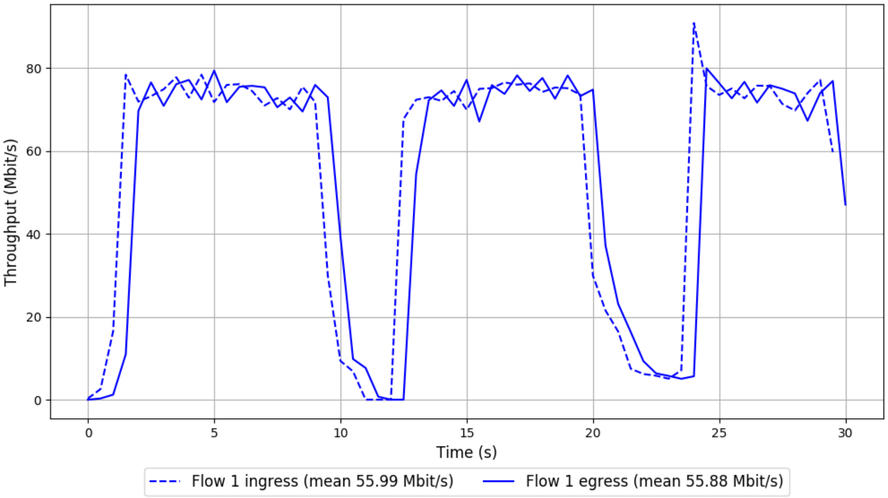
Run 9: Report of QUIC Cubic — Data Link

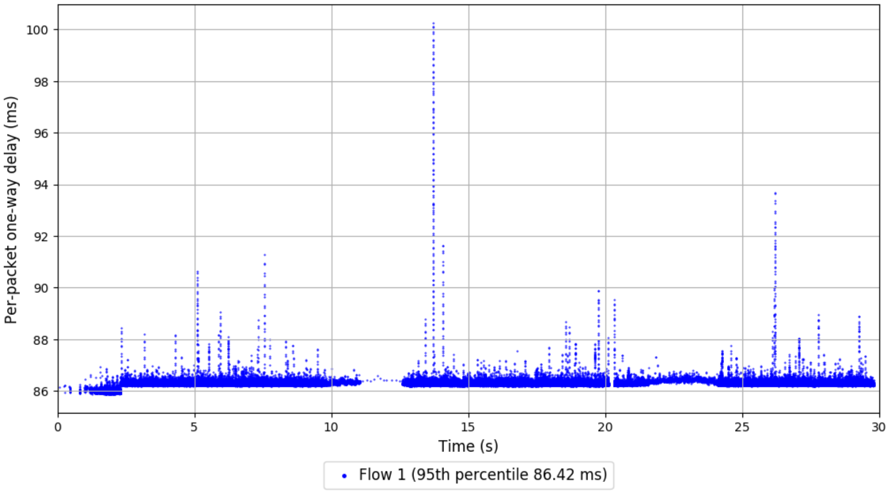




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-01 15:47:27
End at: 2018-08-01 15:47:57
Local clock offset: -0.074 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 86.418 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 86.418 ms
Loss rate: 0.79%
```

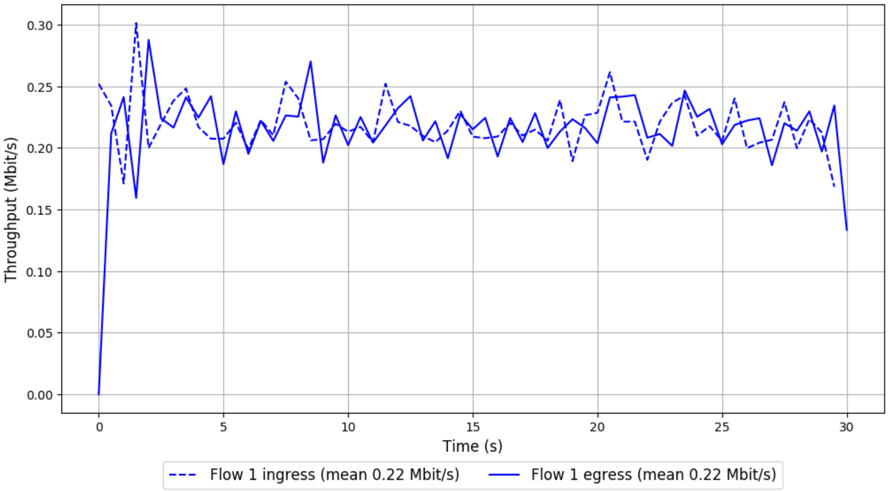
Run 10: Report of QUIC Cubic — Data Link

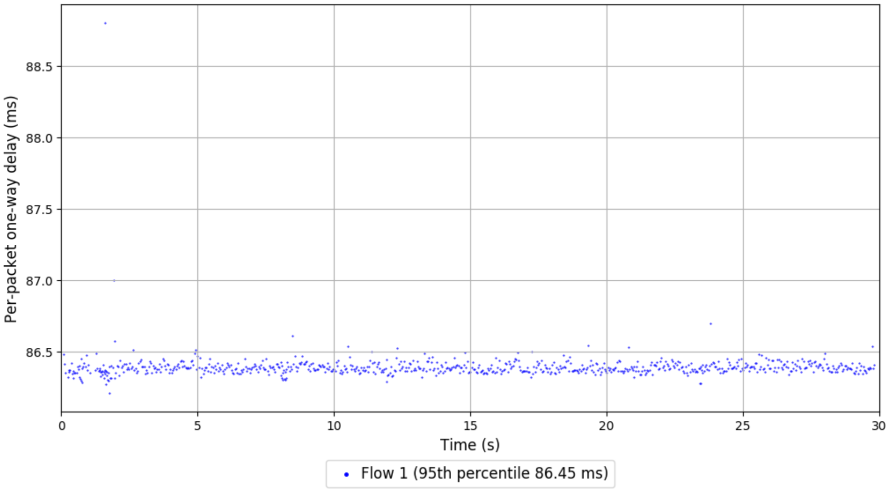




```
Run 1: Statistics of SCReAM

Start at: 2018-08-01 12:19:27
End at: 2018-08-01 12:19:57
Local clock offset: 0.218 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.453 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.453 ms
Loss rate: 0.52%
```

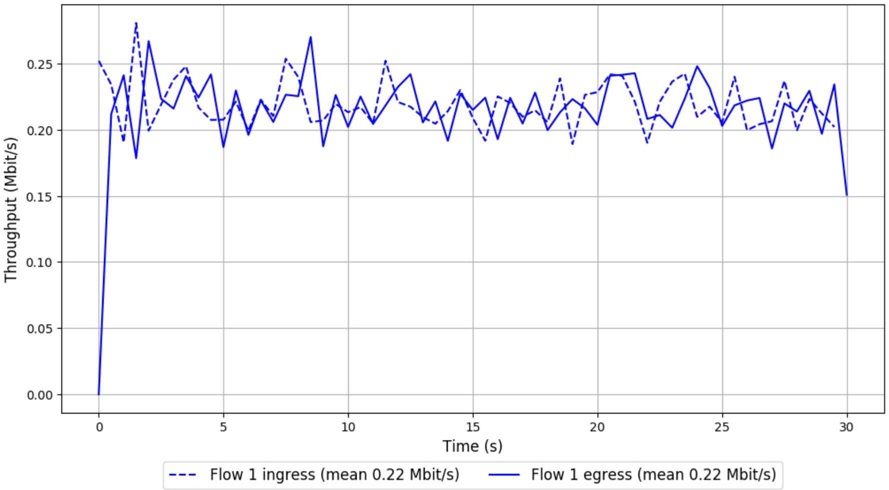
Run 1: Report of SCReAM — Data Link

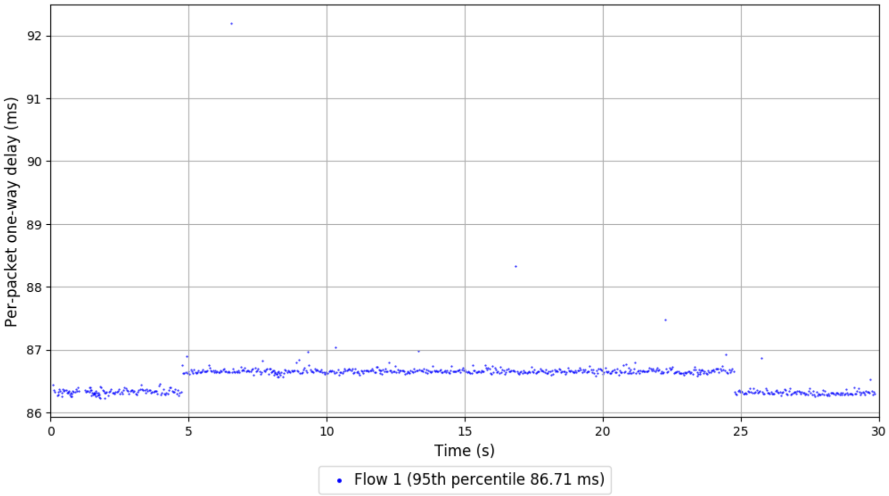




```
Run 2: Statistics of SCReAM

Start at: 2018-08-01 12:41:38
End at: 2018-08-01 12:42:08
Local clock offset: 0.154 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.712 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.712 ms
Loss rate: 0.64%
```

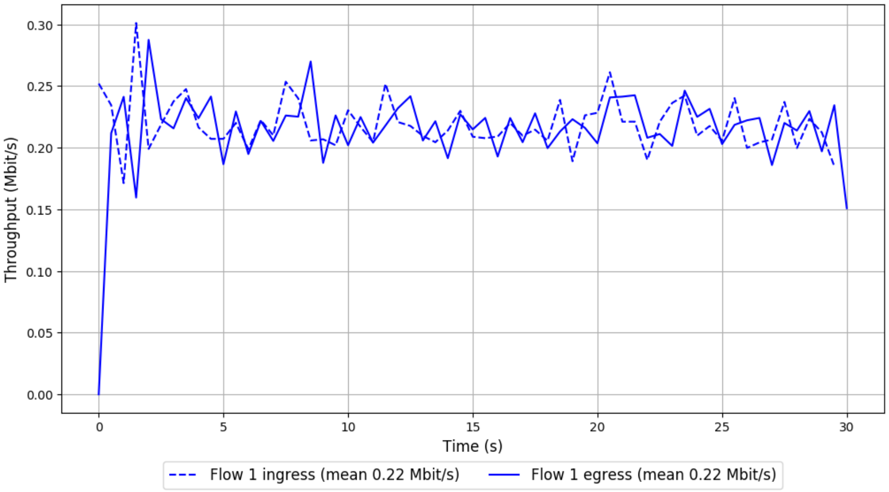
Run 2: Report of SCReAM — Data Link

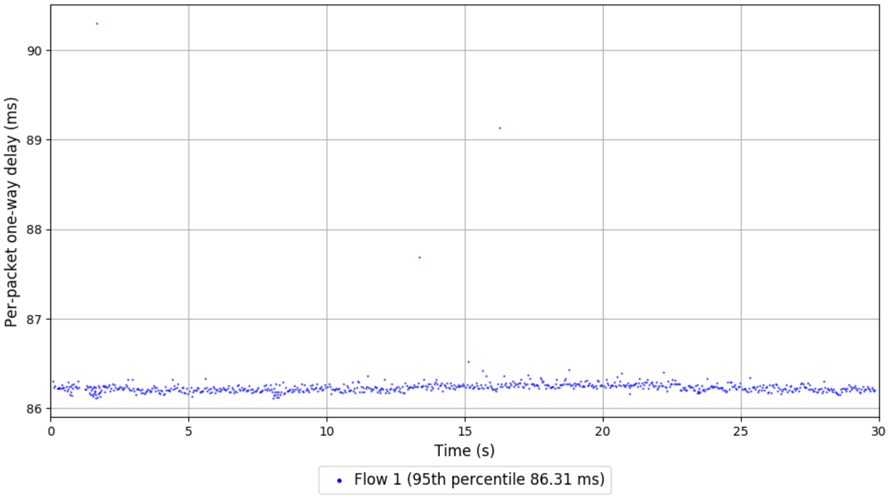




```
Run 3: Statistics of SCReAM

Start at: 2018-08-01 13:03:50
End at: 2018-08-01 13:04:20
Local clock offset: 0.269 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.306 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.306 ms
Loss rate: 0.51%
```

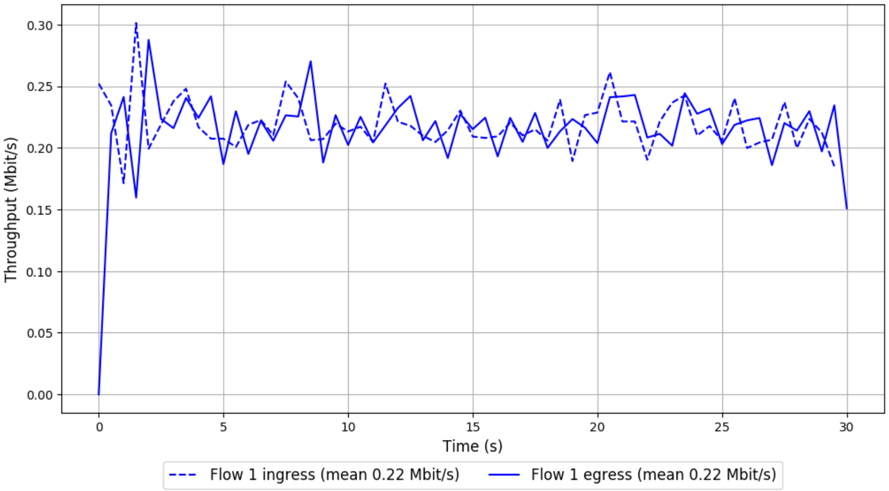
Run 3: Report of SCReAM — Data Link

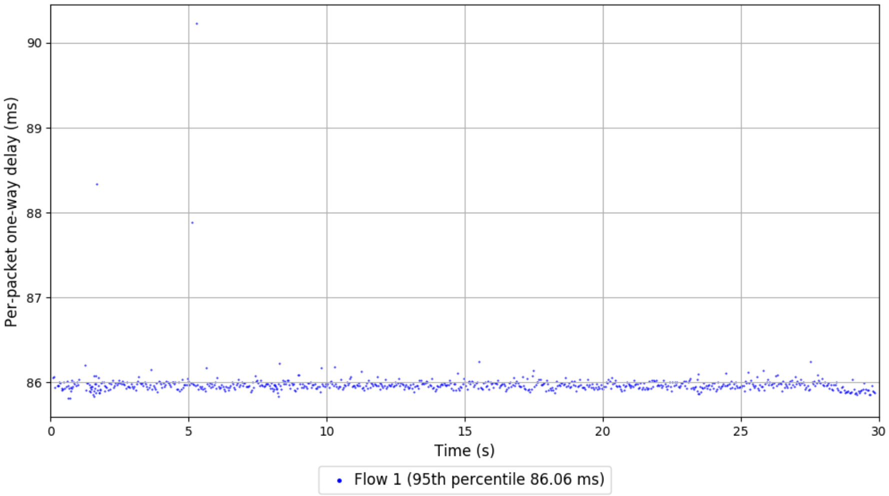




```
Run 4: Statistics of SCReAM

Start at: 2018-08-01 13:25:54
End at: 2018-08-01 13:26:24
Local clock offset: -0.111 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.055 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.055 ms
Loss rate: 0.51%
```

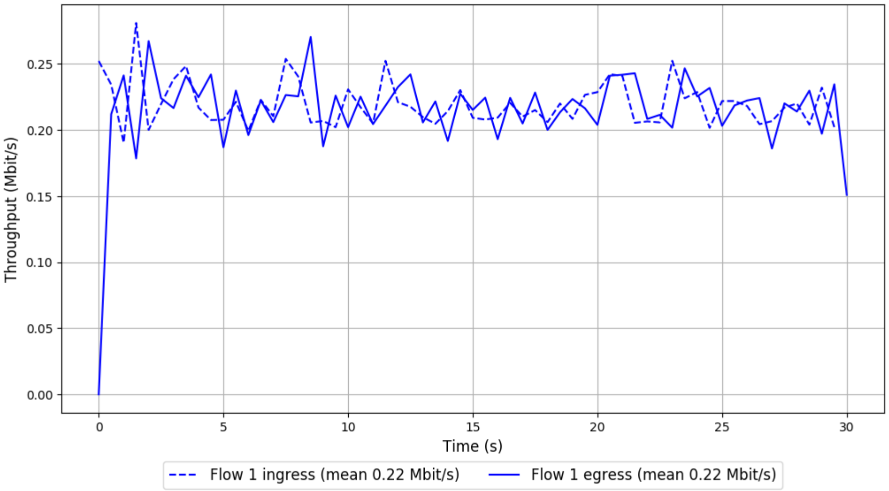
Run 4: Report of SCReAM — Data Link

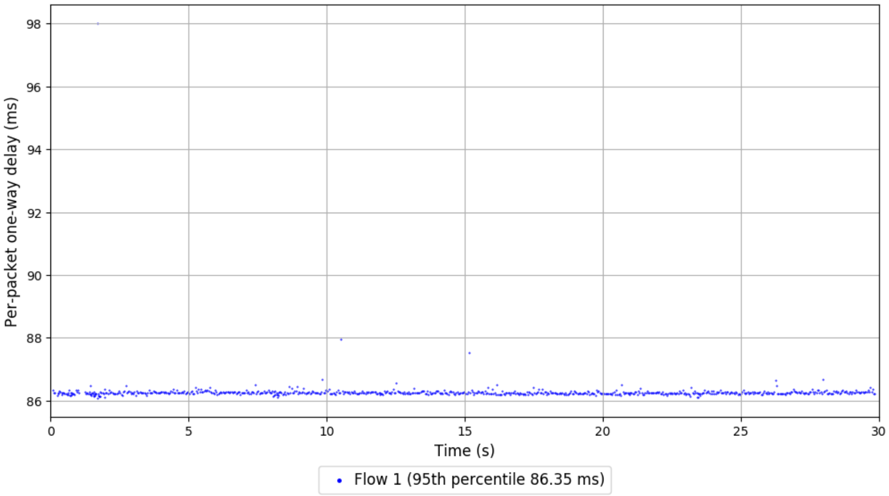




```
Run 5: Statistics of SCReAM

Start at: 2018-08-01 13:48:09
End at: 2018-08-01 13:48:39
Local clock offset: 0.087 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.348 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.348 ms
Loss rate: 0.64%
```

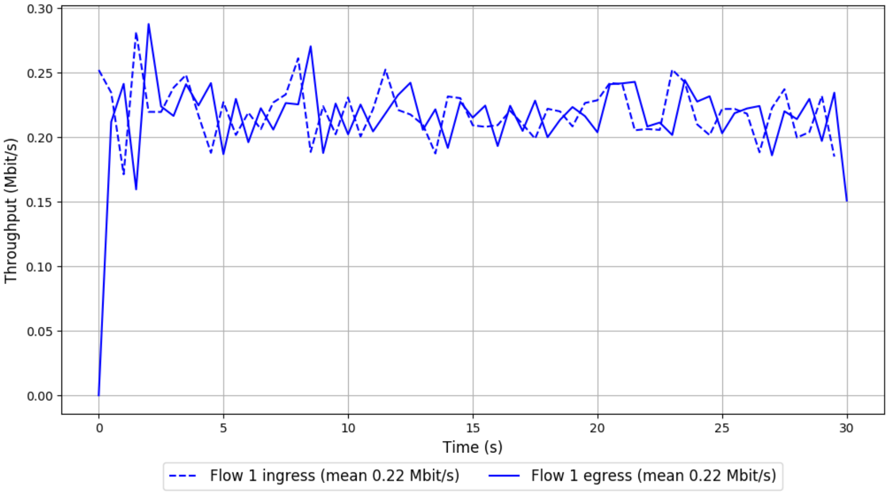
Run 5: Report of SCReAM — Data Link

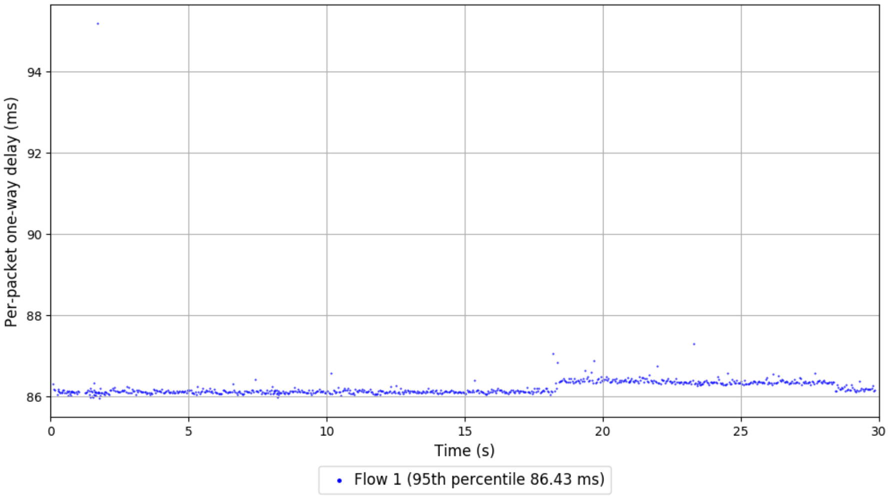




```
Run 6: Statistics of SCReAM

Start at: 2018-08-01 14:10:34
End at: 2018-08-01 14:11:04
Local clock offset: 0.19 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.429 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.429 ms
Loss rate: 0.51%
```

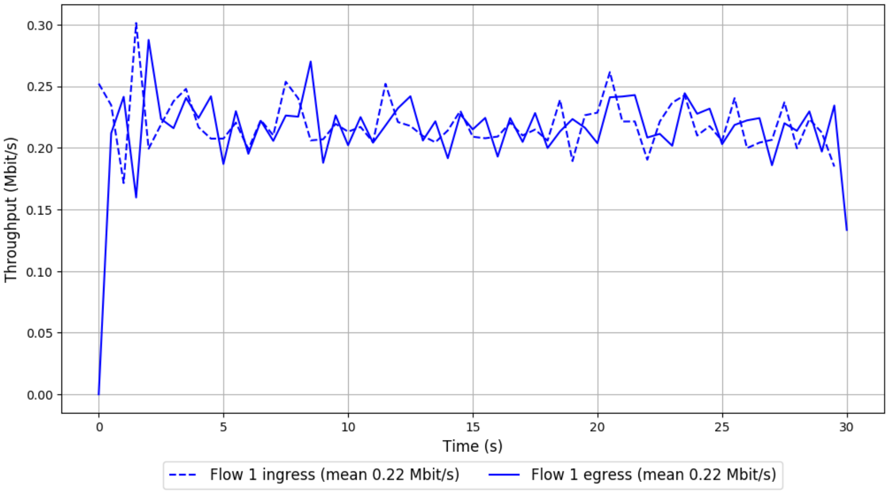
Run 6: Report of SCReAM — Data Link

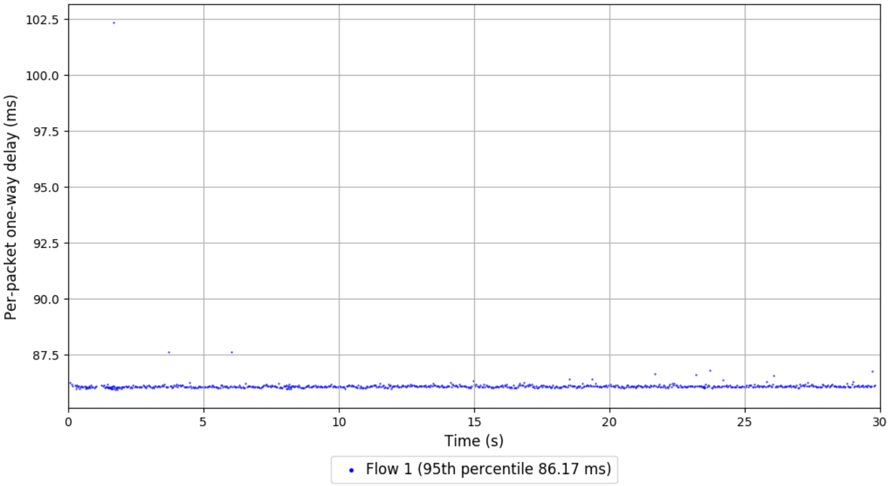




```
Run 7: Statistics of SCReAM

Start at: 2018-08-01 14:32:46
End at: 2018-08-01 14:33:16
Local clock offset: -0.028 ms
Remote clock offset: -0.196 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.175 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.175 ms
Loss rate: 0.64%
```

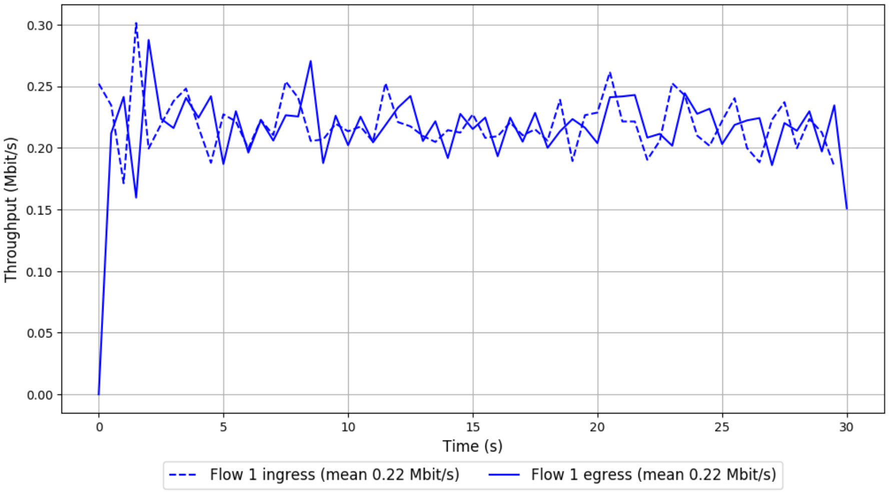
Run 7: Report of SCReAM — Data Link

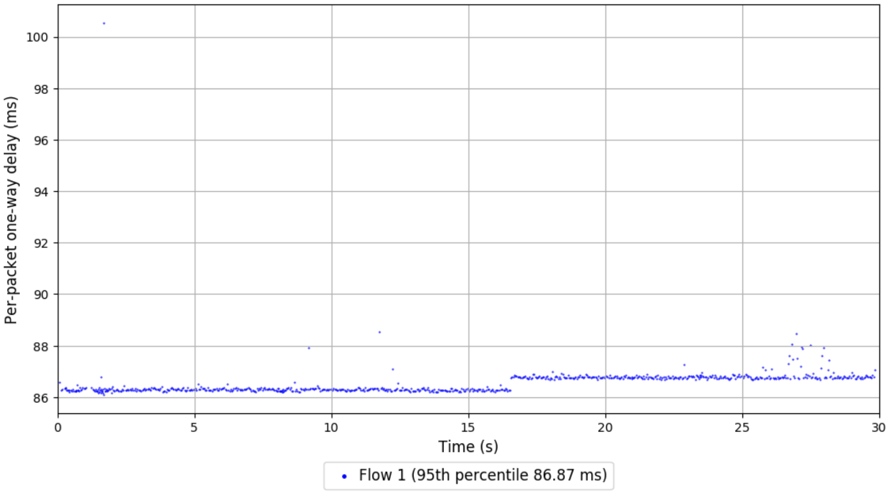




```
Run 8: Statistics of SCReAM

Start at: 2018-08-01 14:55:02
End at: 2018-08-01 14:55:32
Local clock offset: 0.217 ms
Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.873 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.873 ms
Loss rate: 0.51%
```

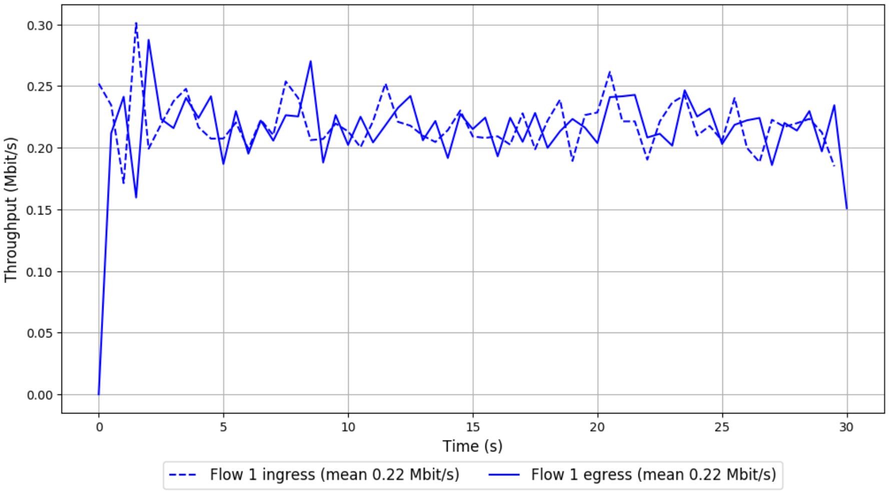
Run 8: Report of SCReAM — Data Link

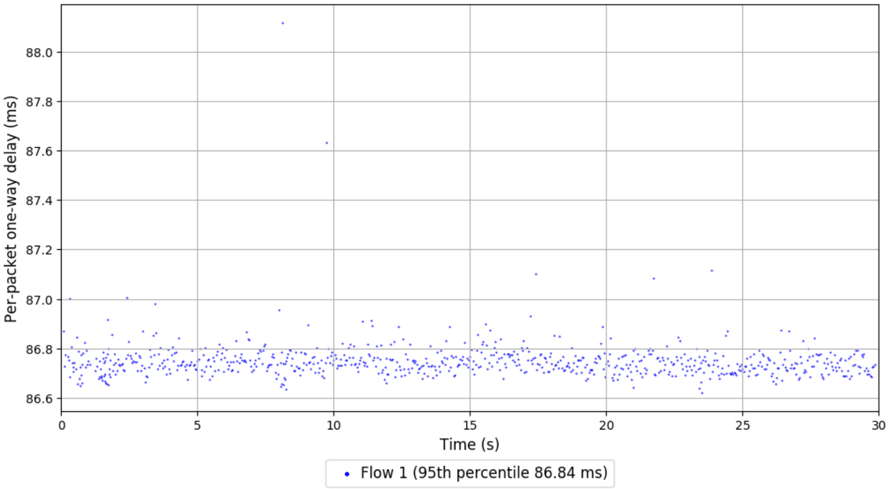




```
Run 9: Statistics of SCReAM

Start at: 2018-08-01 15:17:09
End at: 2018-08-01 15:17:39
Local clock offset: 0.305 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.840 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.840 ms
Loss rate: 0.51%
```

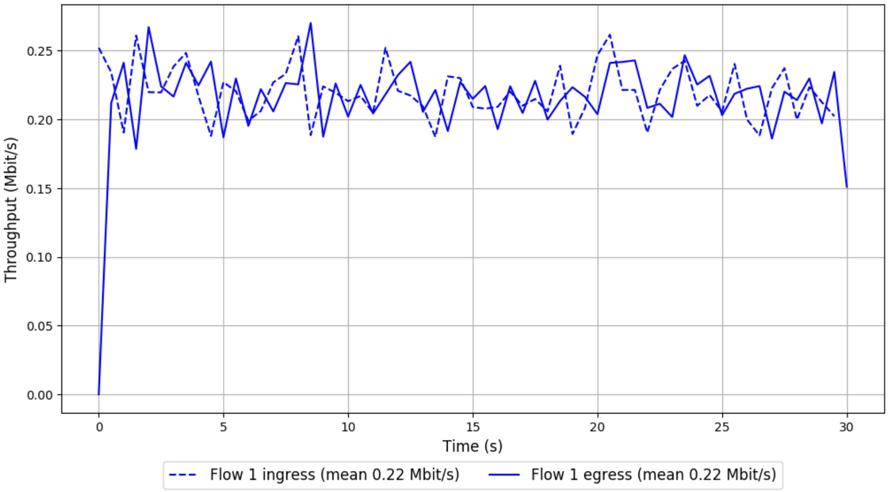
Run 9: Report of SCReAM — Data Link

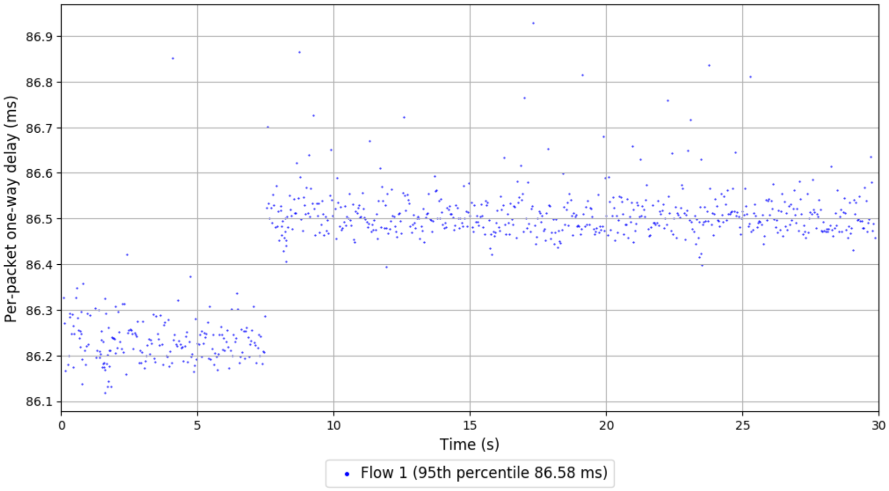




```
Run 10: Statistics of SCReAM

Start at: 2018-08-01 15:39:05
End at: 2018-08-01 15:39:35
Local clock offset: 0.006 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.579 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.579 ms
Loss rate: 0.64%
```

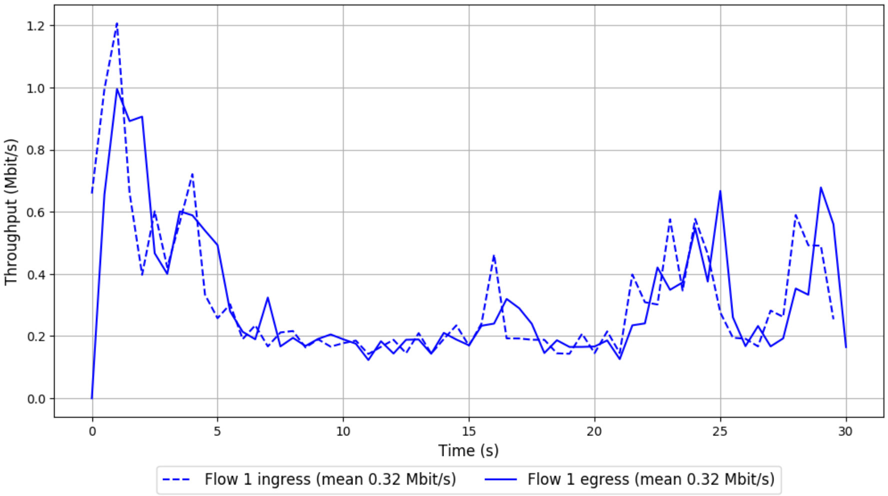
Run 10: Report of SCReAM — Data Link

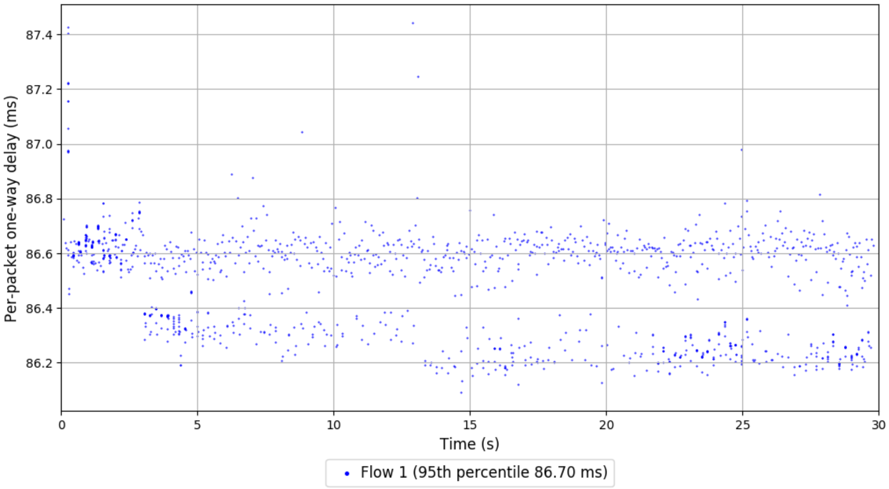




```
Run 1: Statistics of Sprout

Start at: 2018-08-01 12:35:16
End at: 2018-08-01 12:35:46
Local clock offset: 0.049 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 86.701 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 86.701 ms
Loss rate: 0.48%
```

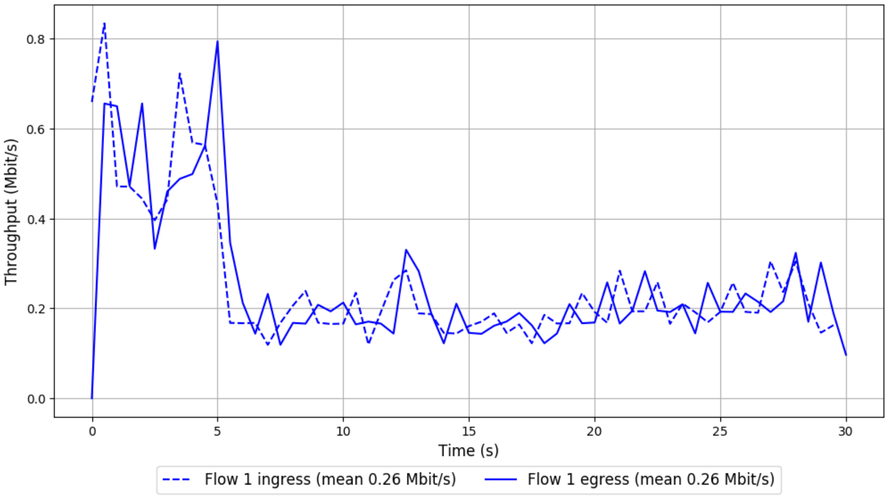
Run 1: Report of Sprout — Data Link

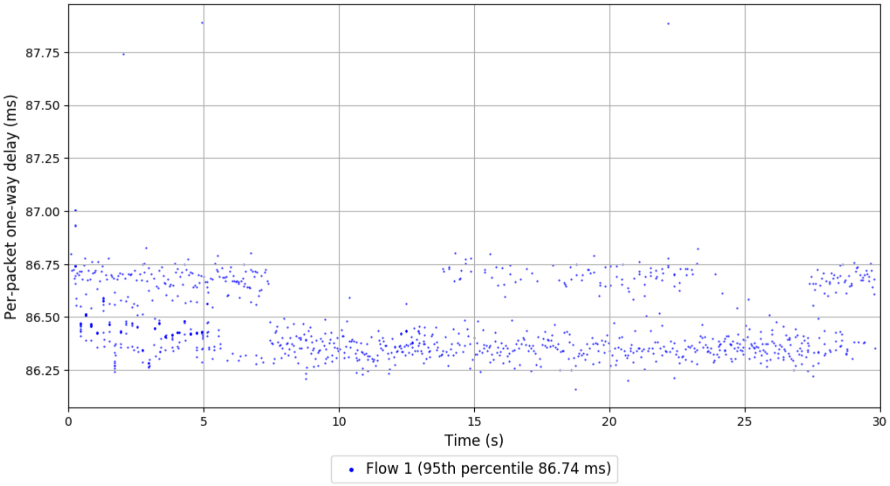




```
Run 2: Statistics of Sprout

Start at: 2018-08-01 12:57:35
End at: 2018-08-01 12:58:05
Local clock offset: 0.275 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.738 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.738 ms
Loss rate: 0.45%
```

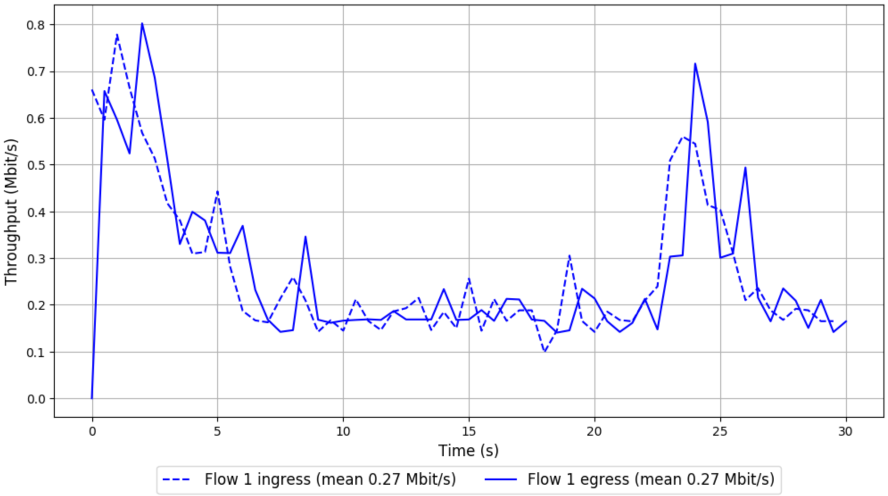
Run 2: Report of Sprout — Data Link

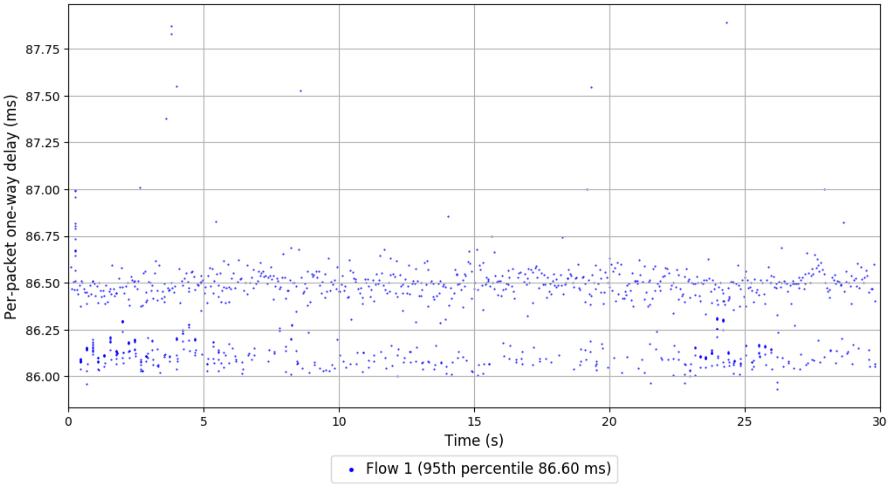




```
Run 3: Statistics of Sprout

Start at: 2018-08-01 13:19:33
End at: 2018-08-01 13:20:03
Local clock offset: 0.017 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.602 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.602 ms
Loss rate: 0.28%
```

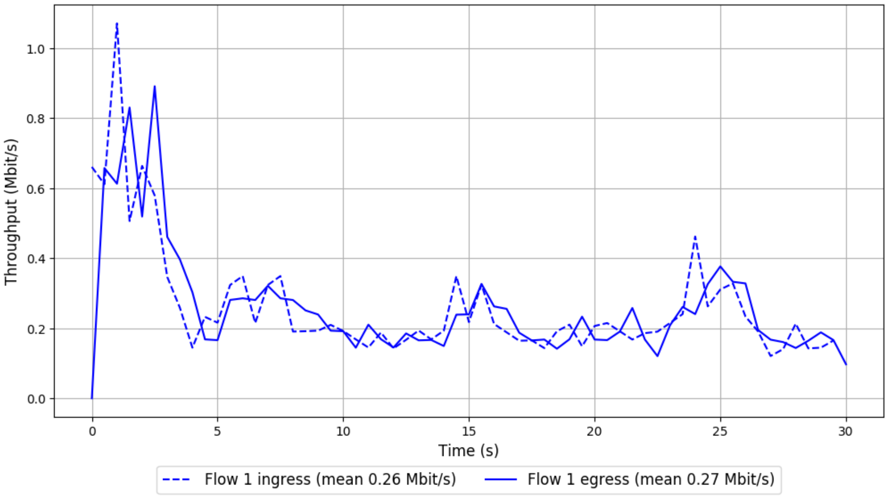
Run 3: Report of Sprout — Data Link

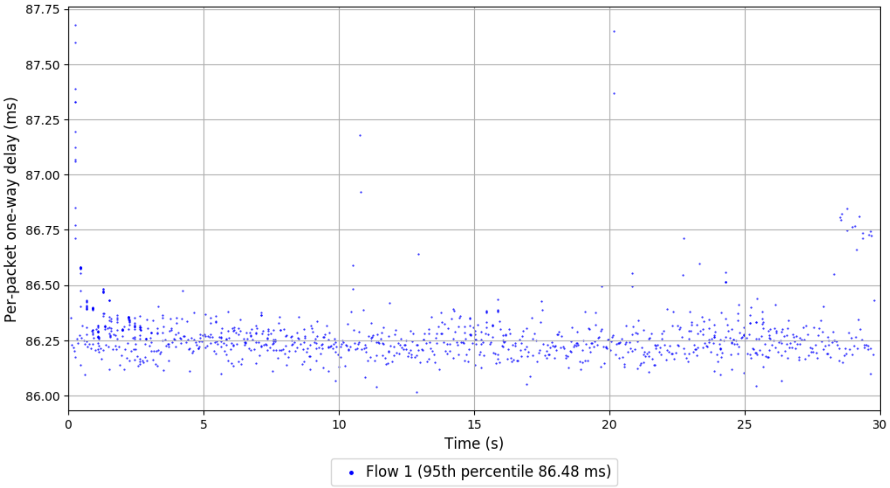




```
Run 4: Statistics of Sprout

Start at: 2018-08-01 13:41:50
End at: 2018-08-01 13:42:20
Local clock offset: 0.159 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.481 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.481 ms
Loss rate: 0.45%
```

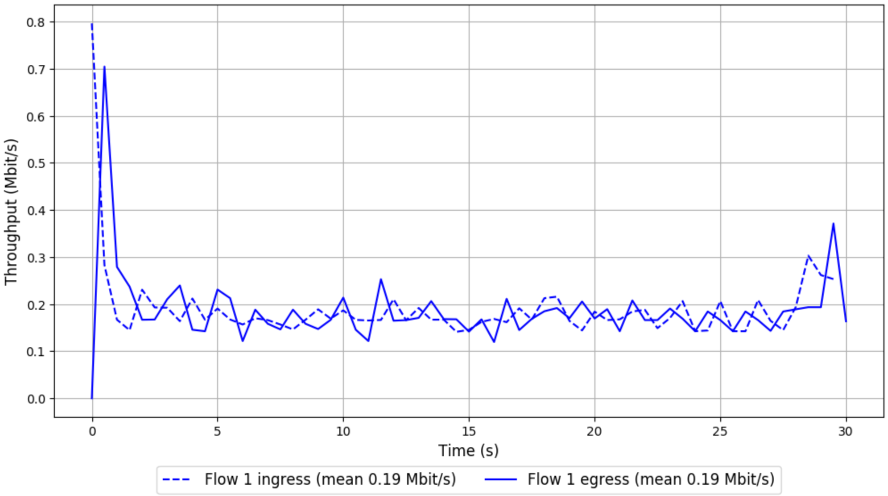
Run 4: Report of Sprout — Data Link

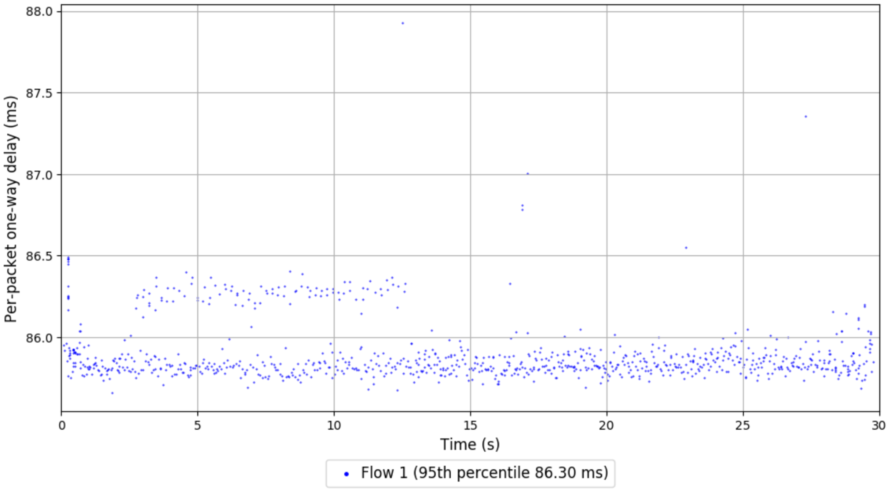




```
Run 5: Statistics of Sprout

Start at: 2018-08-01 14:04:16
End at: 2018-08-01 14:04:46
Local clock offset: -0.12 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 86.297 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 86.297 ms
Loss rate: 0.81%
```

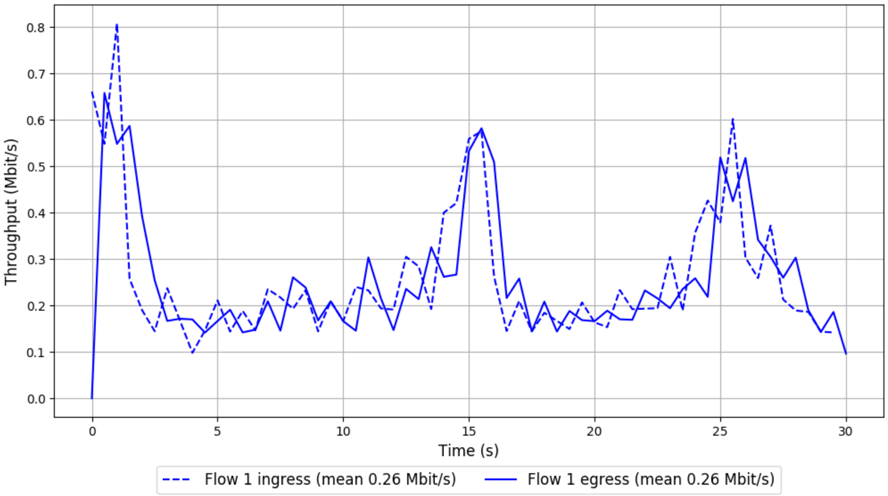
Run 5: Report of Sprout — Data Link

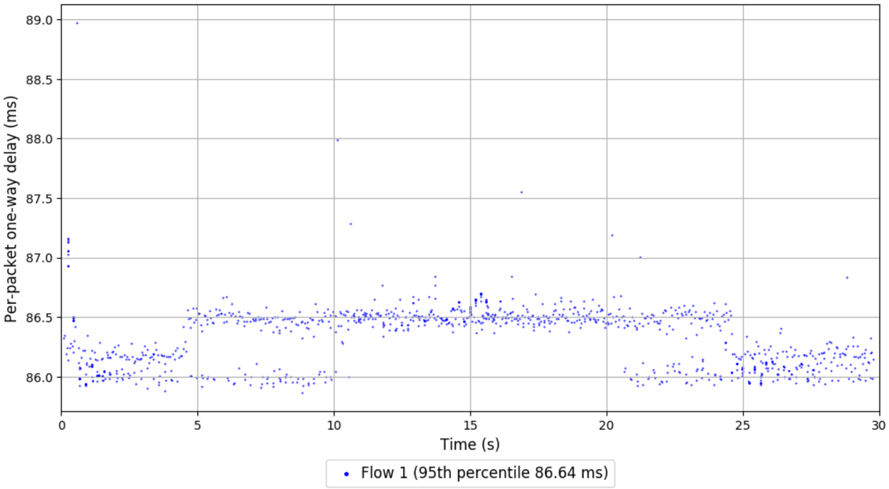




```
Run 6: Statistics of Sprout

Start at: 2018-08-01 14:26:28
End at: 2018-08-01 14:26:58
Local clock offset: -0.033 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.636 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.636 ms
Loss rate: 0.45%
```

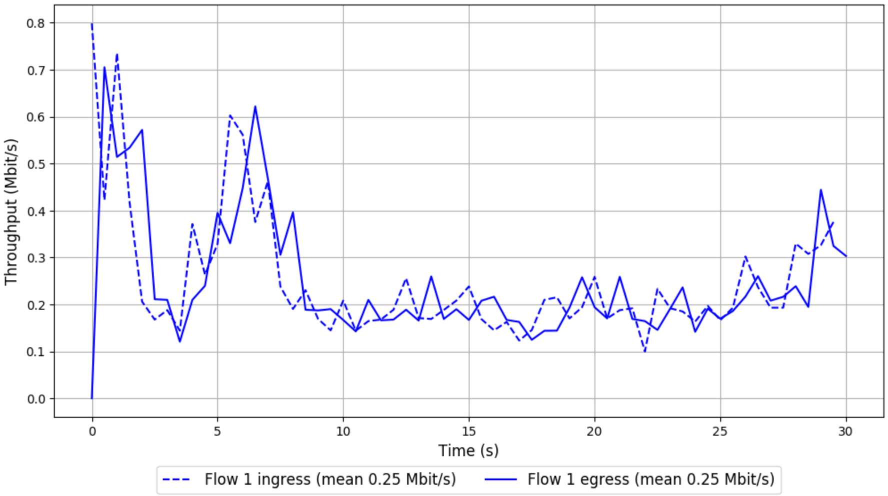
Run 6: Report of Sprout — Data Link

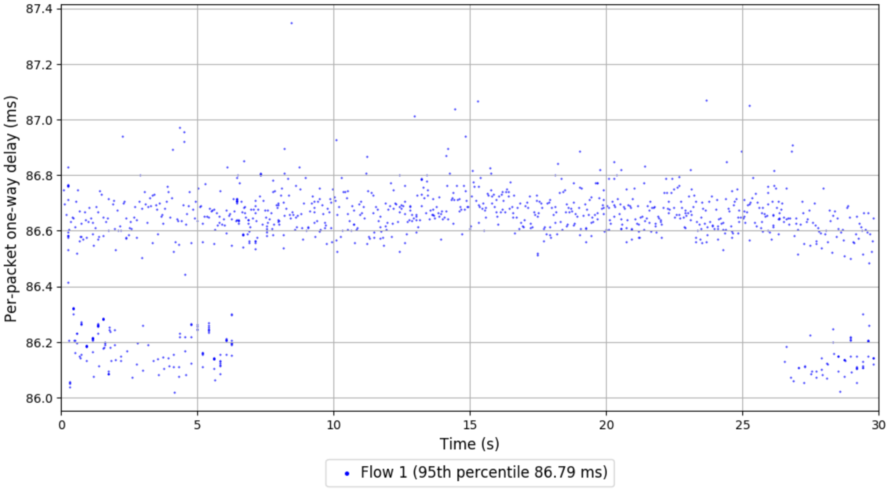




```
Run 7: Statistics of Sprout

Start at: 2018-08-01 14:48:42
End at: 2018-08-01 14:49:12
Local clock offset: 0.054 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.50%
```

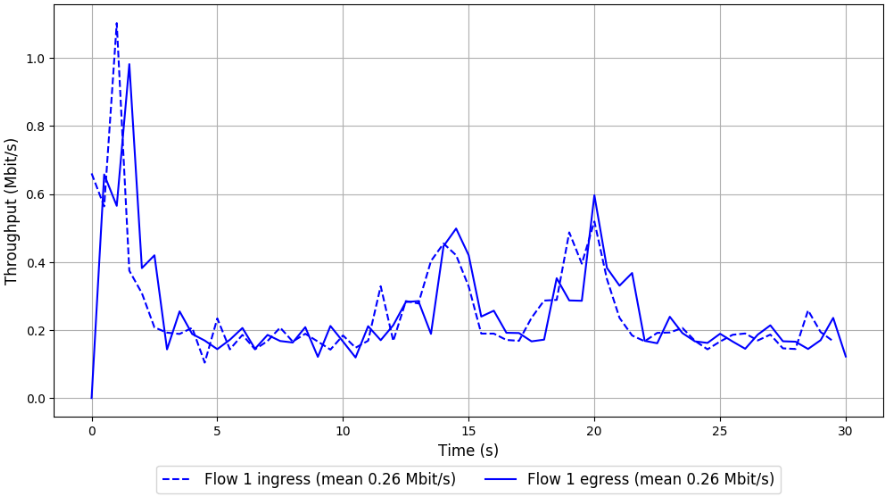
Run 7: Report of Sprout — Data Link

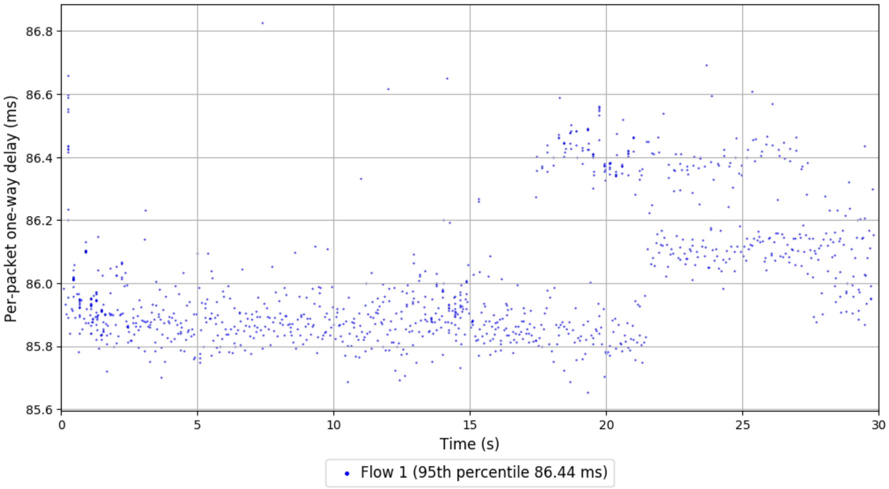




```
Run 8: Statistics of Sprout

Start at: 2018-08-01 15:10:51
End at: 2018-08-01 15:11:21
Local clock offset: -0.093 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.437 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.437 ms
Loss rate: 0.61%
```

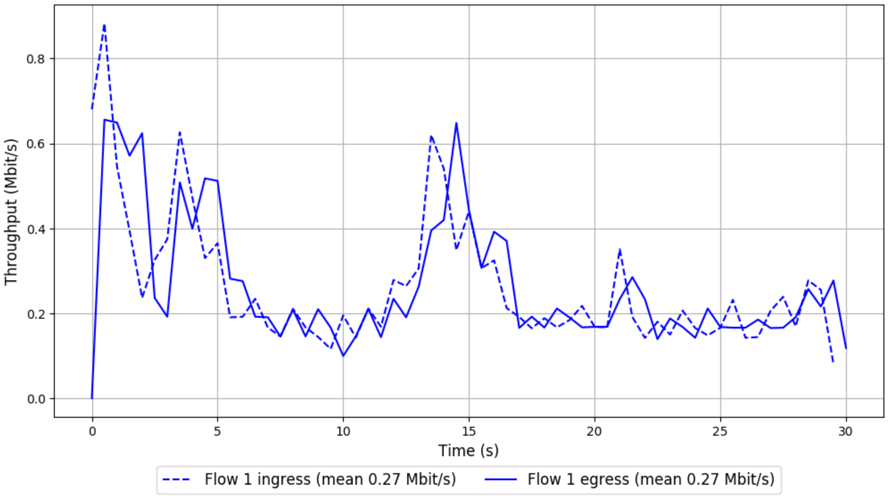
Run 8: Report of Sprout — Data Link

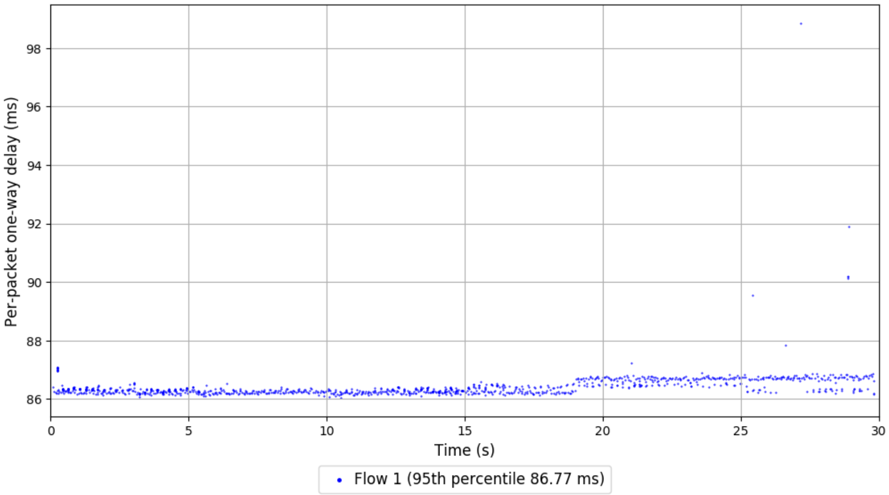




```
Run 9: Statistics of Sprout

Start at: 2018-08-01 15:32:44
End at: 2018-08-01 15:33:14
Local clock offset: 0.216 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.770 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.770 ms
Loss rate: 0.03%
```

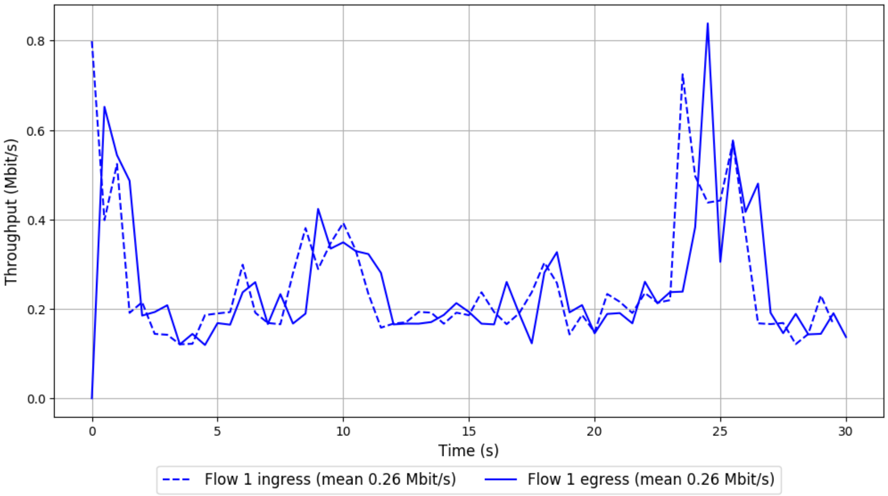
Run 9: Report of Sprout — Data Link

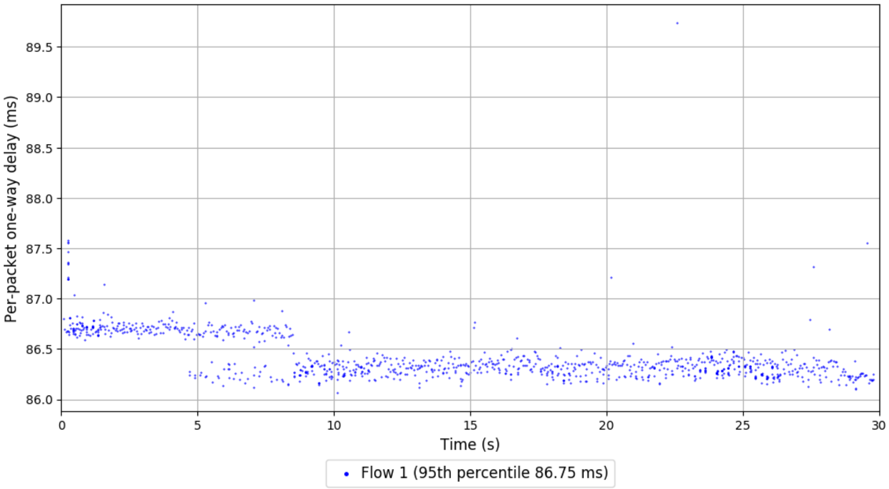




```
Run 10: Statistics of Sprout

Start at: 2018-08-01 15:55:04
End at: 2018-08-01 15:55:34
Local clock offset: 0.147 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-08-01 17:24:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.754 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.754 ms
Loss rate: 0.47%
```

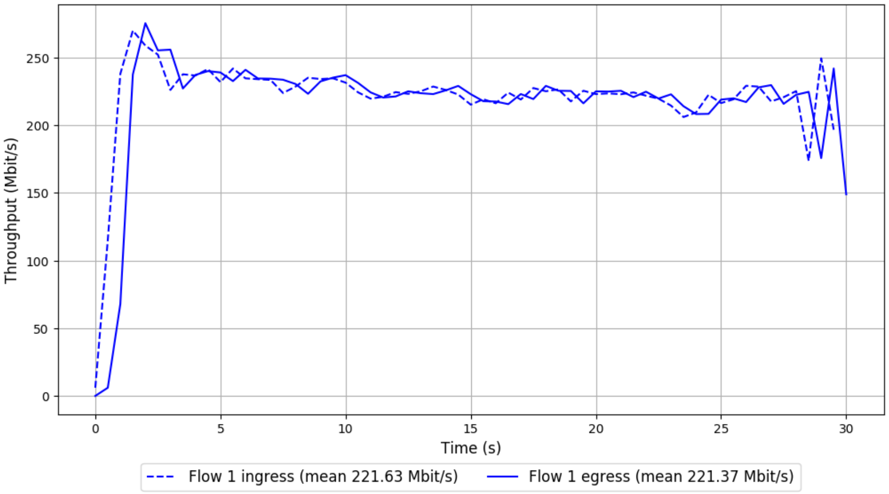
Run 10: Report of Sprout — Data Link

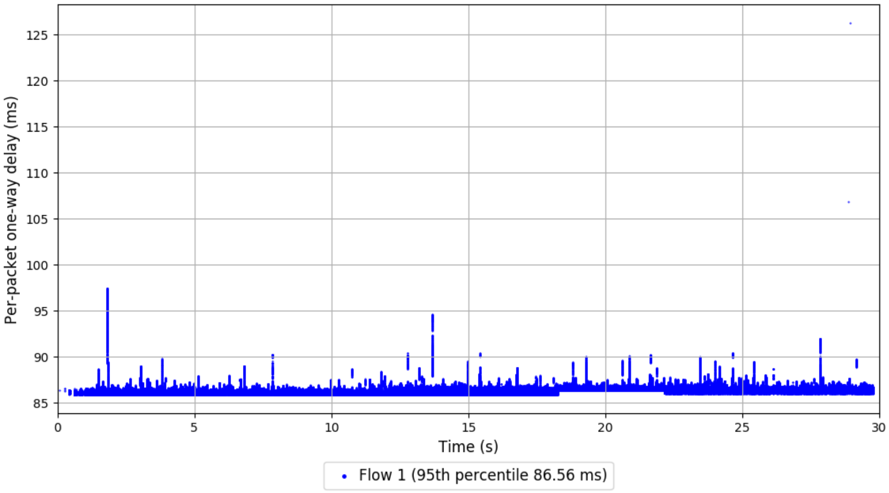




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-01 12:18:00
End at: 2018-08-01 12:18:30
Local clock offset: 0.011 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-08-01 17:26:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.37 Mbit/s
95th percentile per-packet one-way delay: 86.563 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 221.37 Mbit/s
95th percentile per-packet one-way delay: 86.563 ms
Loss rate: 0.69%
```

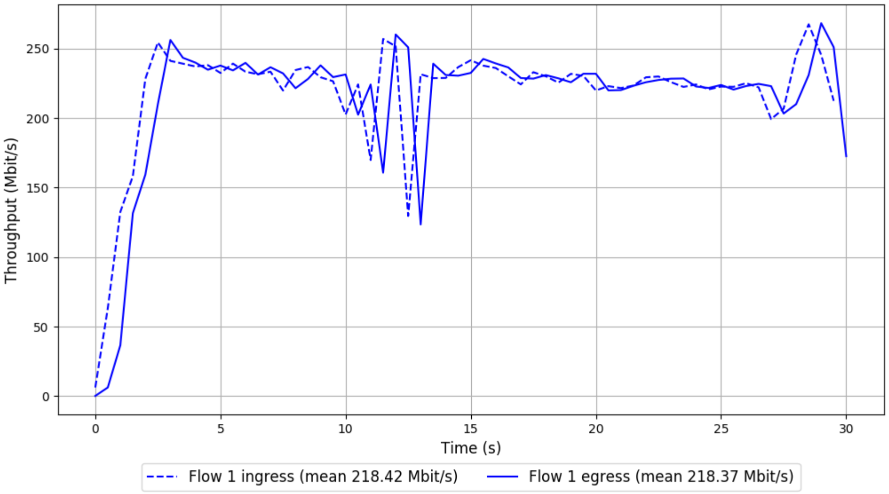
Run 1: Report of TaoVA-100x — Data Link

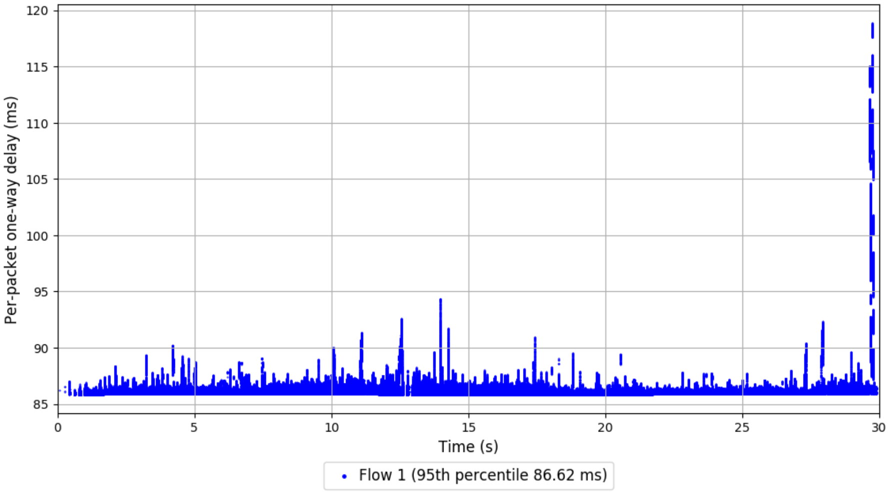




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-01 12:40:11
End at: 2018-08-01 12:40:41
Local clock offset: 0.037 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2018-08-01 17:26:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.37 Mbit/s
95th percentile per-packet one-way delay: 86.616 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 218.37 Mbit/s
95th percentile per-packet one-way delay: 86.616 ms
Loss rate: 0.60%
```

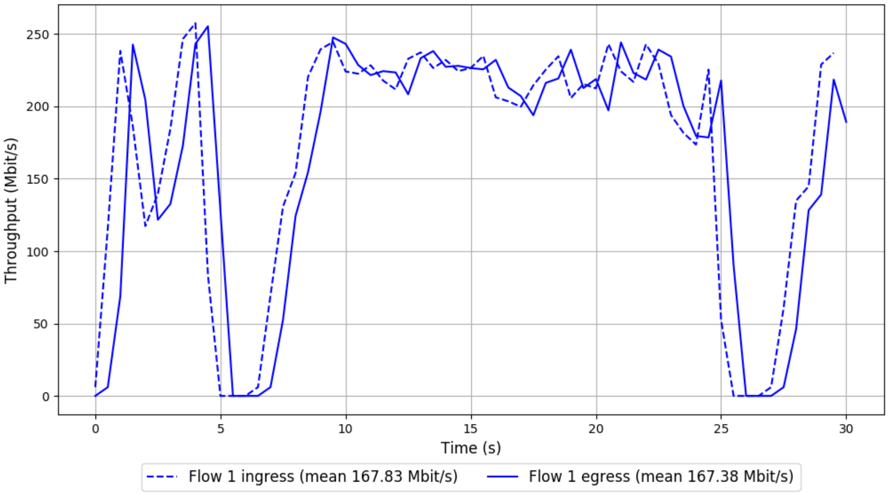
Run 2: Report of TaoVA-100x — Data Link

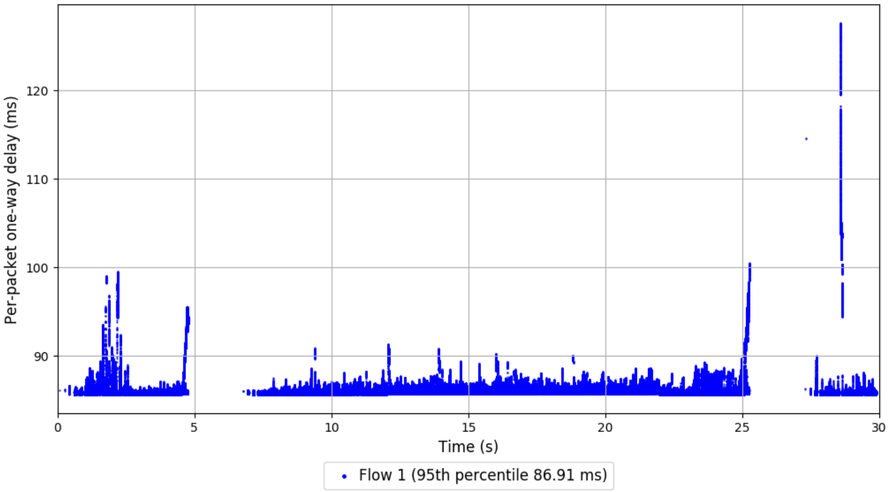




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-01 13:02:27
End at: 2018-08-01 13:02:57
Local clock offset: -0.084 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-08-01 17:26:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.38 Mbit/s
95th percentile per-packet one-way delay: 86.909 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 167.38 Mbit/s
95th percentile per-packet one-way delay: 86.909 ms
Loss rate: 0.84%
```

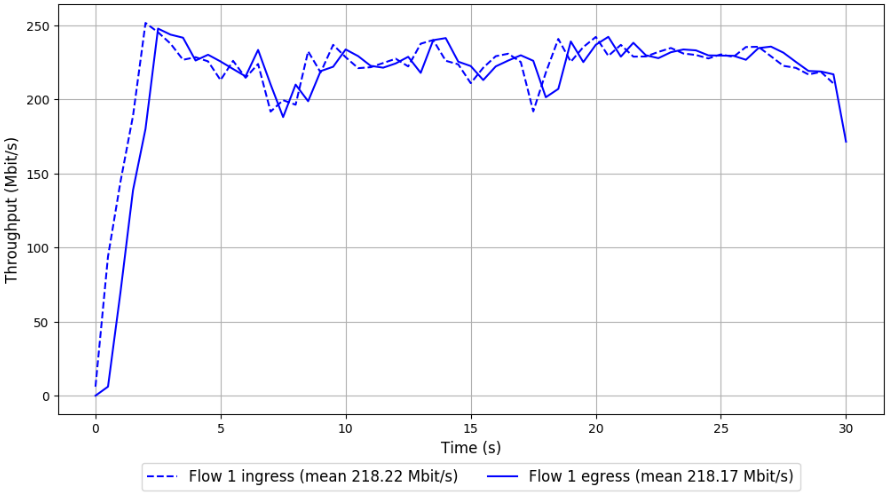
Run 3: Report of TaoVA-100x — Data Link

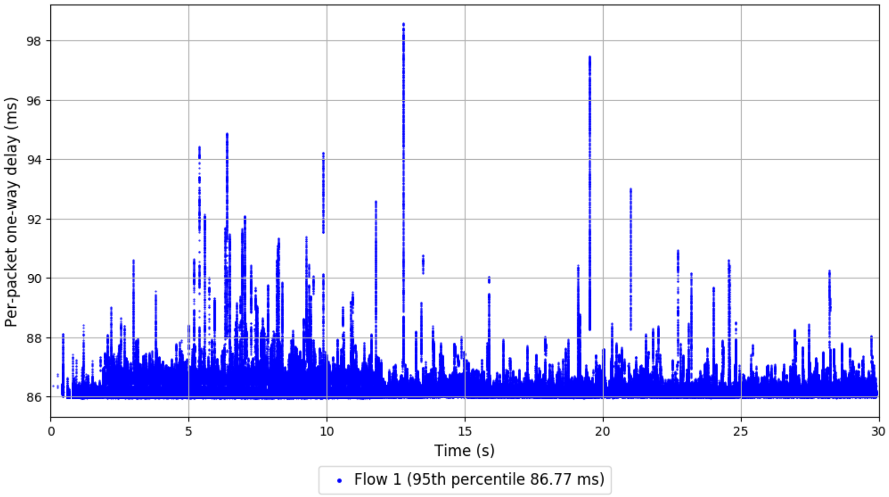




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-01 13:24:27
End at: 2018-08-01 13:24:57
Local clock offset: 0.17 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-08-01 17:26:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.17 Mbit/s
95th percentile per-packet one-way delay: 86.772 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 218.17 Mbit/s
95th percentile per-packet one-way delay: 86.772 ms
Loss rate: 0.60%
```

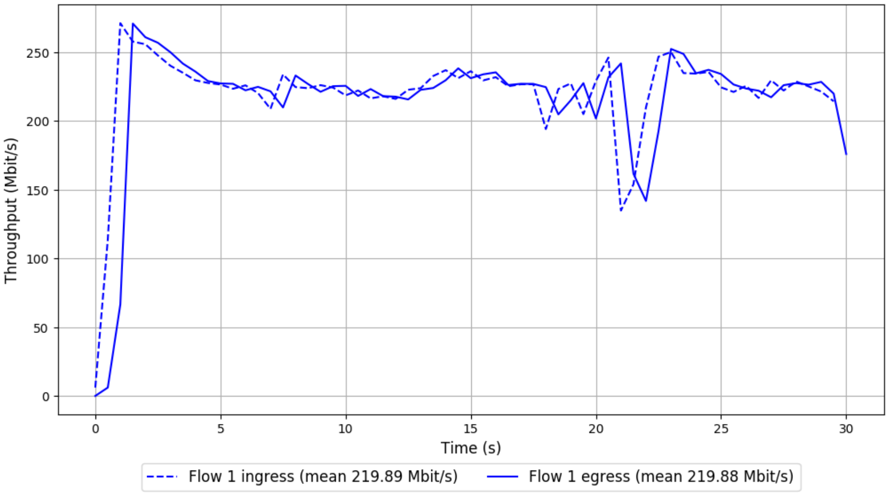
Run 4: Report of TaoVA-100x — Data Link

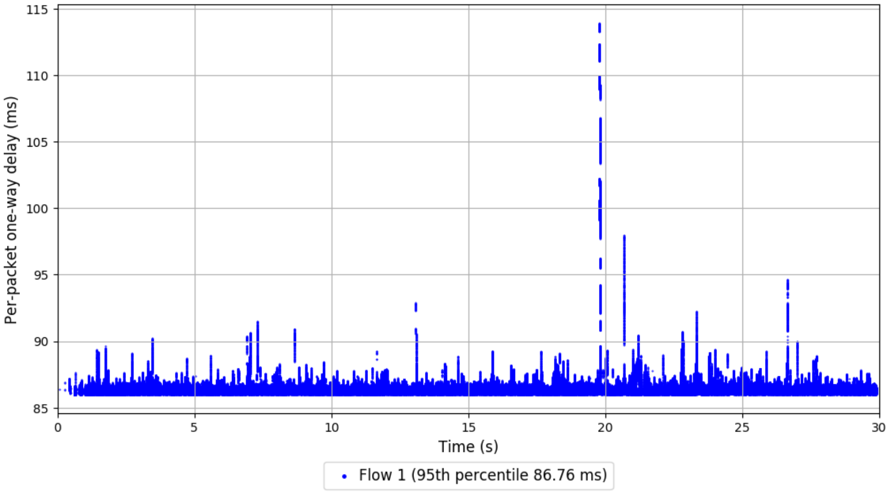




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-01 13:46:41
End at: 2018-08-01 13:47:11
Local clock offset: 0.048 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-08-01 17:26:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.88 Mbit/s
95th percentile per-packet one-way delay: 86.762 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 219.88 Mbit/s
95th percentile per-packet one-way delay: 86.762 ms
Loss rate: 0.58%
```

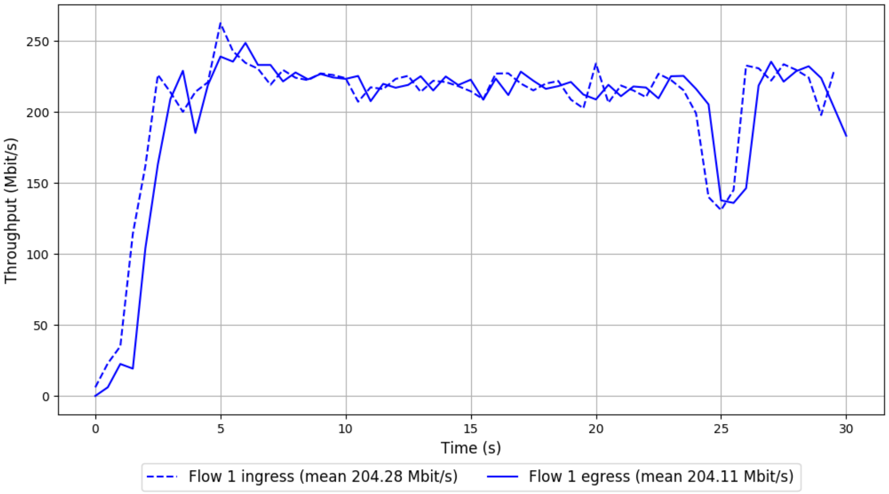
Run 5: Report of TaoVA-100x — Data Link

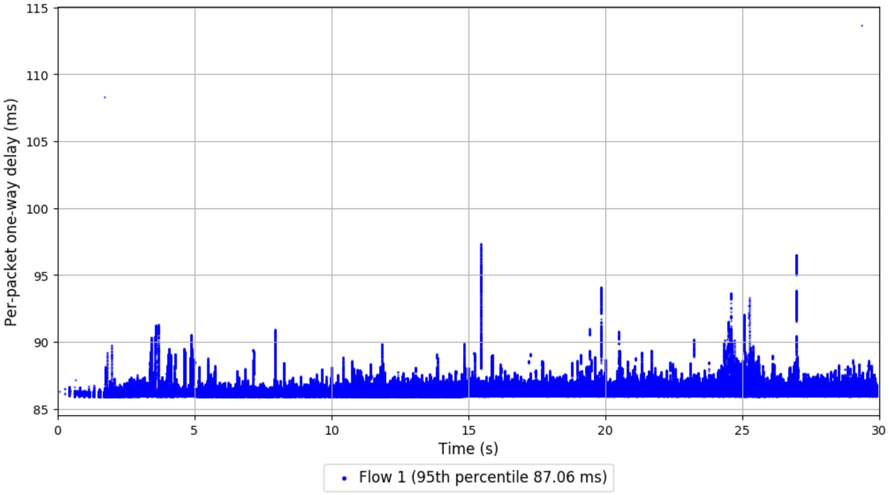




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-01 14:09:08
End at: 2018-08-01 14:09:38
Local clock offset: 0.226 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-08-01 17:27:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.11 Mbit/s
95th percentile per-packet one-way delay: 87.061 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 204.11 Mbit/s
95th percentile per-packet one-way delay: 87.061 ms
Loss rate: 0.64%
```

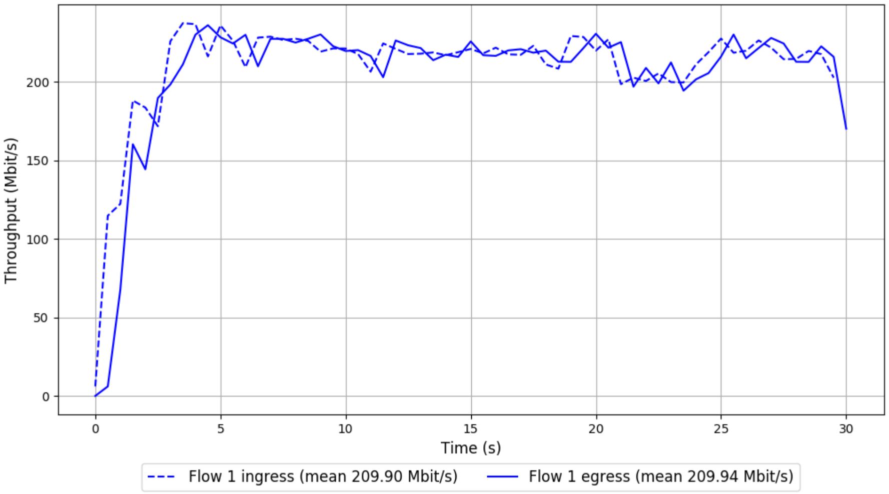
Run 6: Report of TaoVA-100x — Data Link

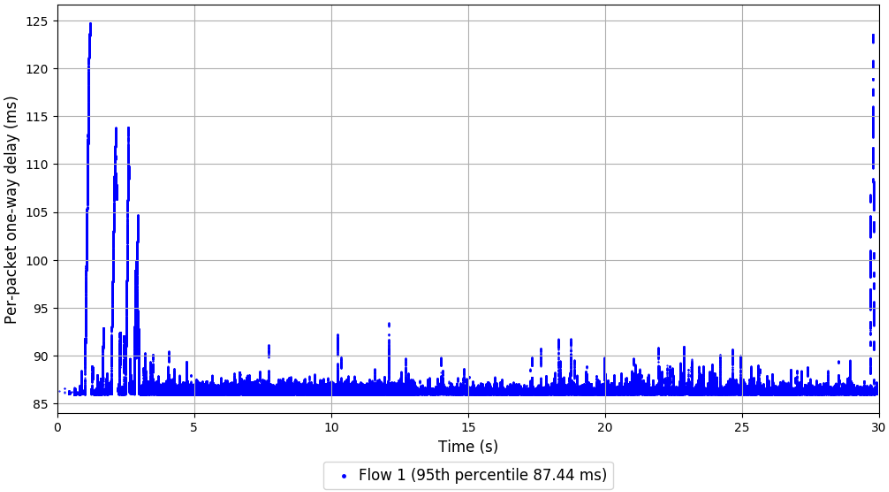




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-01 14:31:20
End at: 2018-08-01 14:31:50
Local clock offset: 0.163 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2018-08-01 17:28:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.94 Mbit/s
95th percentile per-packet one-way delay: 87.443 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 209.94 Mbit/s
95th percentile per-packet one-way delay: 87.443 ms
Loss rate: 0.56%
```

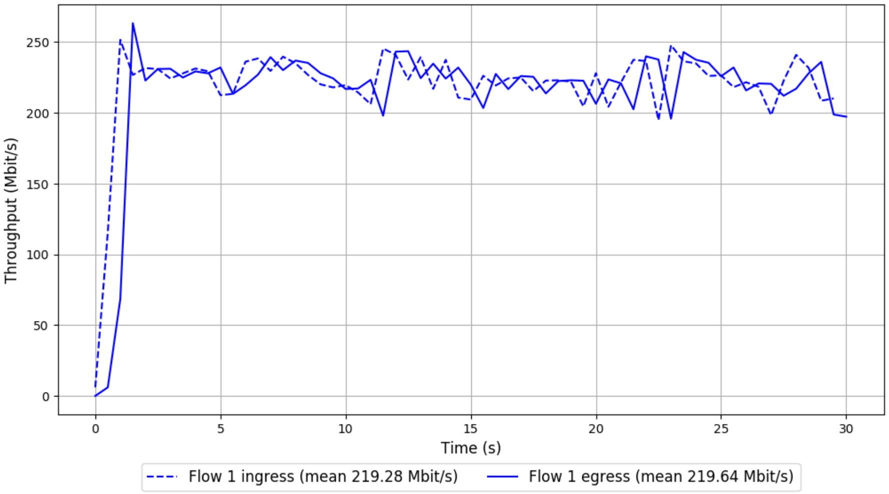
Run 7: Report of TaoVA-100x — Data Link

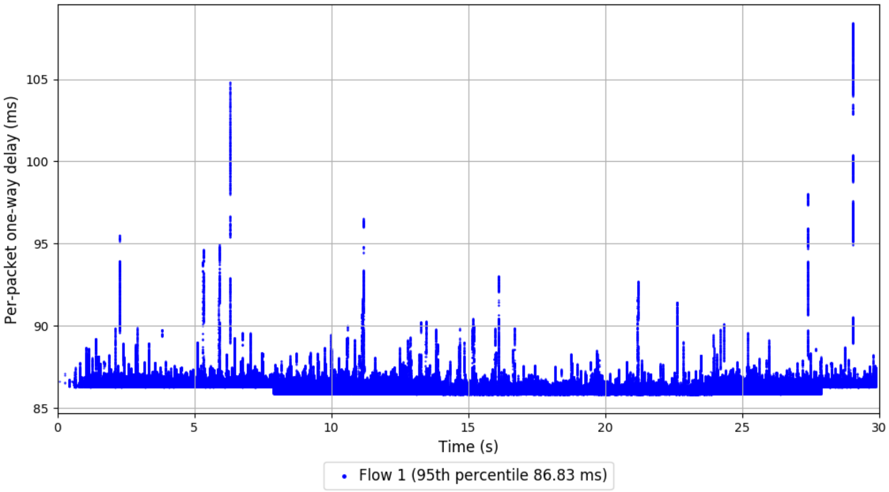




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-01 14:53:35
End at: 2018-08-01 14:54:05
Local clock offset: 0.005 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2018-08-01 17:31:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.64 Mbit/s
95th percentile per-packet one-way delay: 86.828 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 219.64 Mbit/s
95th percentile per-packet one-way delay: 86.828 ms
Loss rate: 0.46%
```

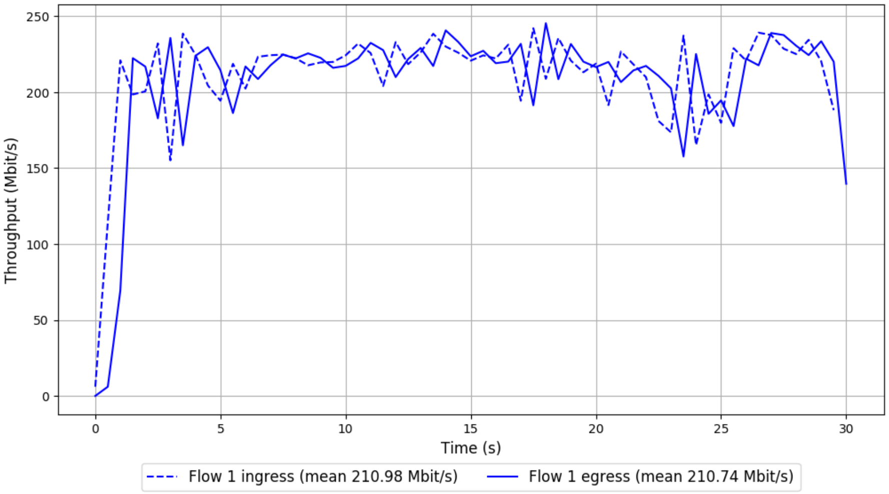
Run 8: Report of TaoVA-100x — Data Link

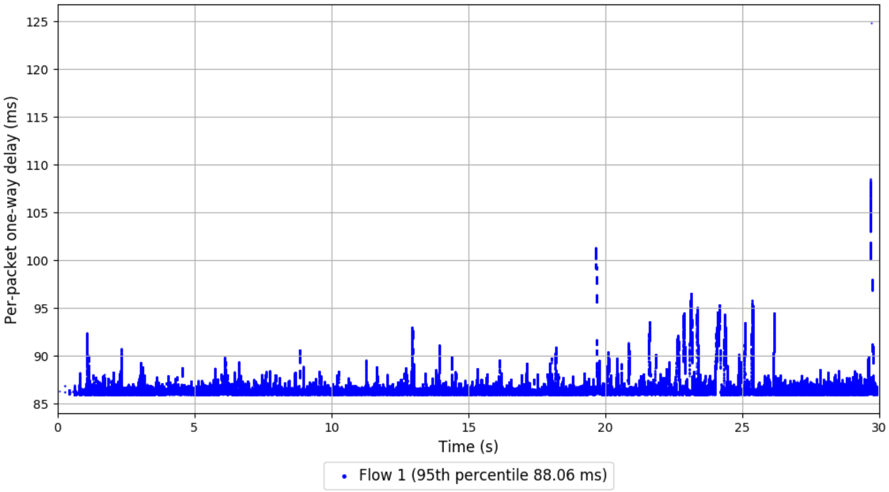




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-01 15:15:43
End at: 2018-08-01 15:16:13
Local clock offset: 0.221 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-08-01 17:31:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.74 Mbit/s
95th percentile per-packet one-way delay: 88.064 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 210.74 Mbit/s
95th percentile per-packet one-way delay: 88.064 ms
Loss rate: 0.69%
```

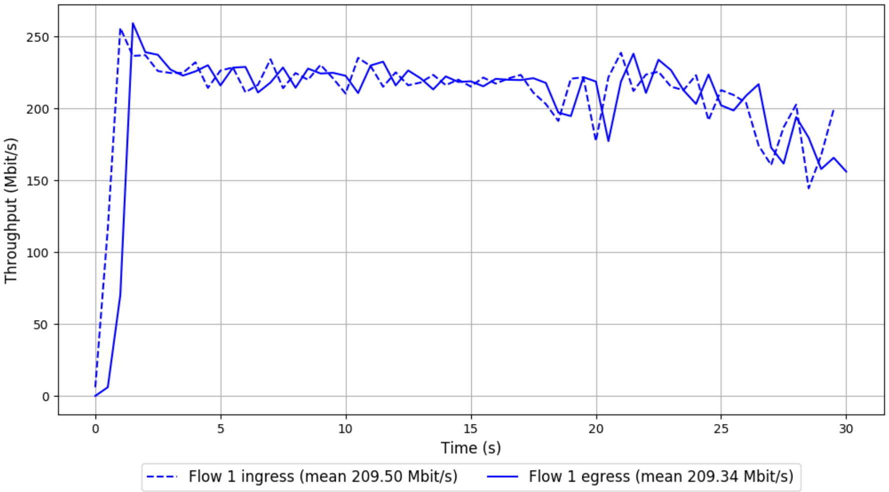
Run 9: Report of TaoVA-100x — Data Link

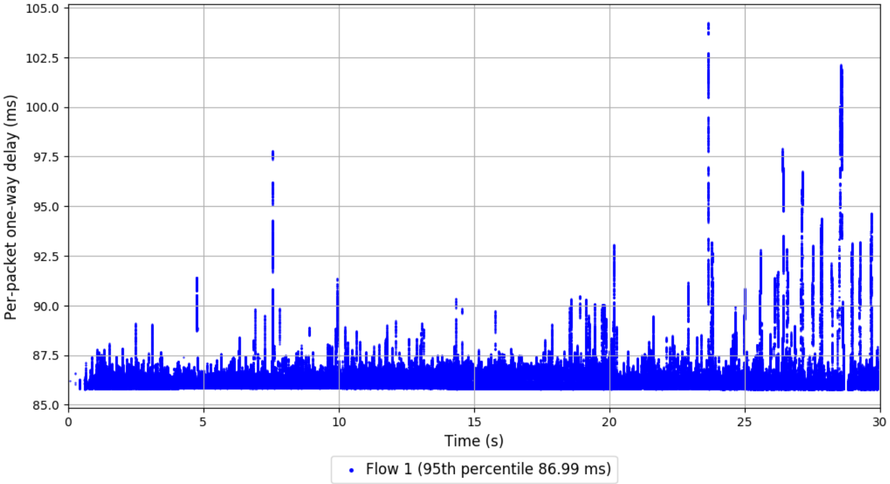




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-01 15:37:39
End at: 2018-08-01 15:38:09
Local clock offset: 0.028 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.34 Mbit/s
95th percentile per-packet one-way delay: 86.989 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 209.34 Mbit/s
95th percentile per-packet one-way delay: 86.989 ms
Loss rate: 0.65%
```

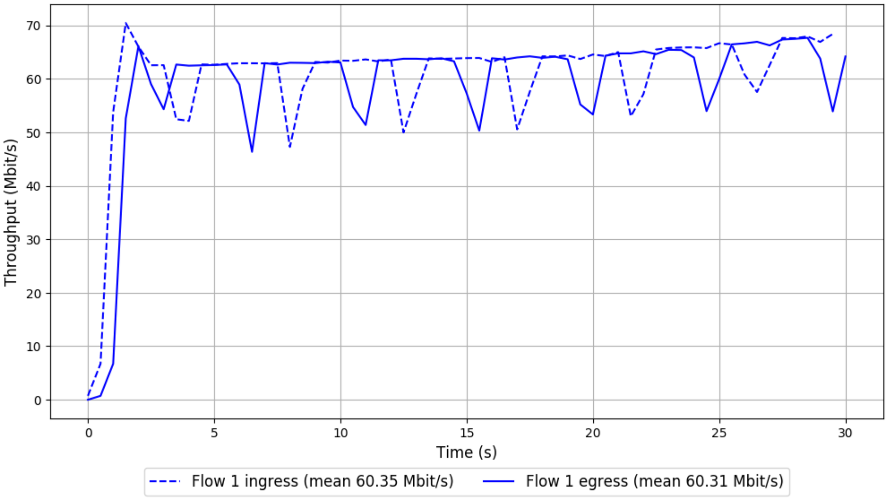
Run 10: Report of TaoVA-100x — Data Link

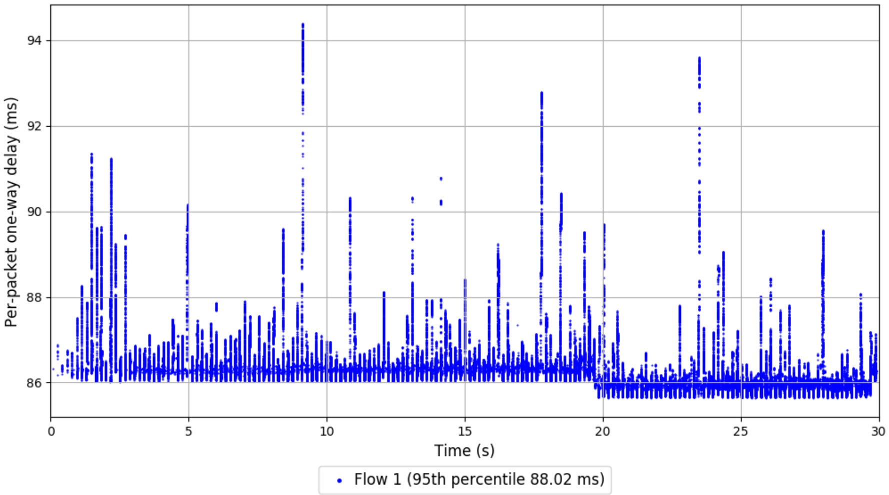




```
Run 1: Statistics of TCP Vegas

Start at: 2018-08-01 12:32:59
End at: 2018-08-01 12:33:29
Local clock offset: -0.254 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 88.015 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 88.015 ms
Loss rate: 0.63%
```

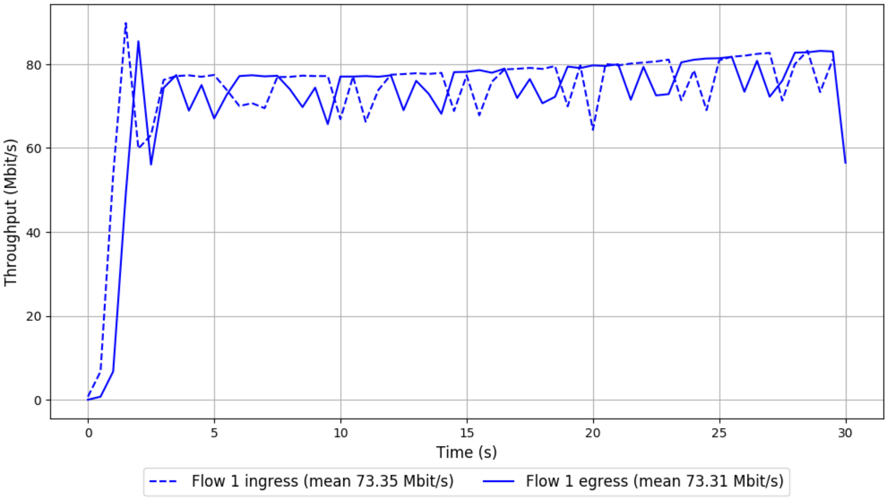
Run 1: Report of TCP Vegas — Data Link

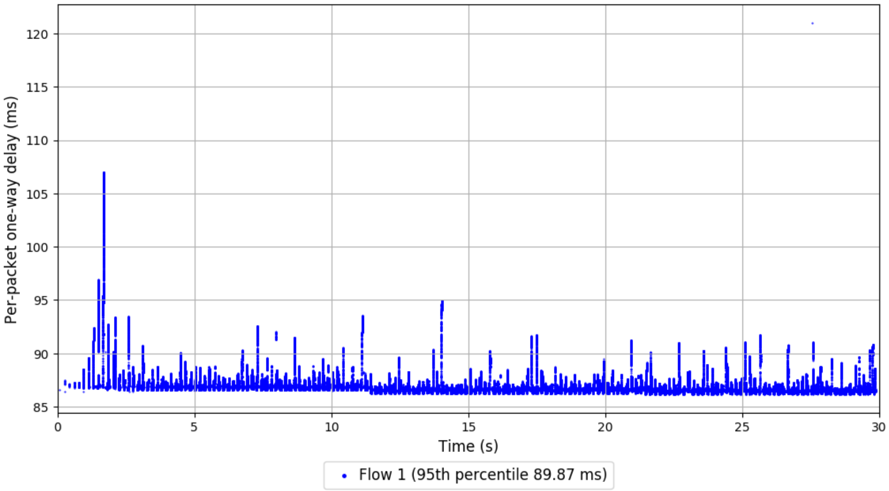




```
Run 2: Statistics of TCP Vegas

Start at: 2018-08-01 12:55:17
End at: 2018-08-01 12:55:47
Local clock offset: 0.342 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.31 Mbit/s
95th percentile per-packet one-way delay: 89.874 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 73.31 Mbit/s
95th percentile per-packet one-way delay: 89.874 ms
Loss rate: 0.64%
```

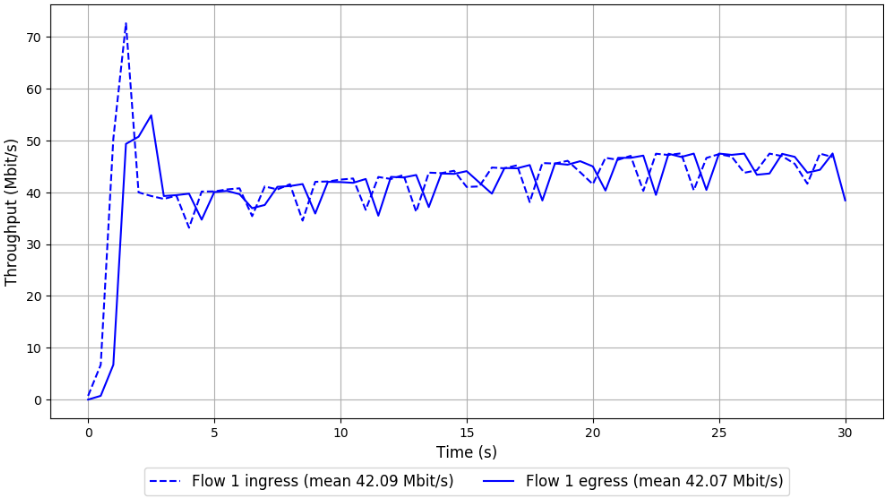
Run 2: Report of TCP Vegas — Data Link

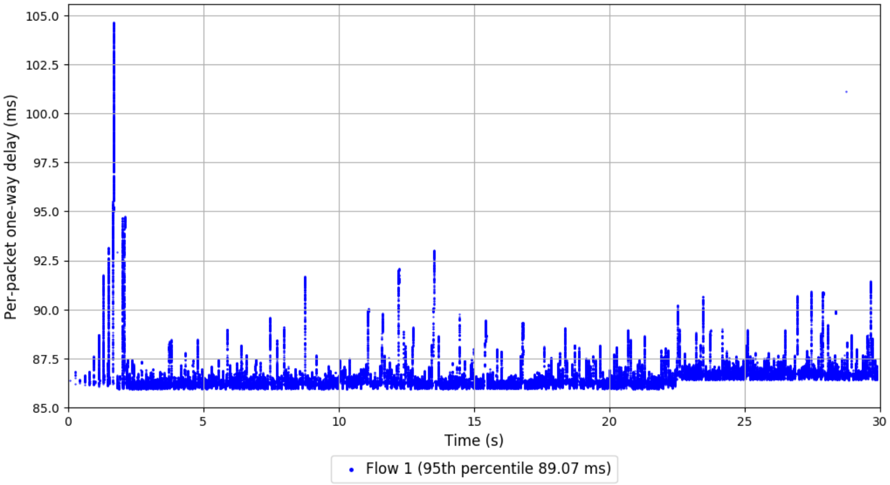




```
Run 3: Statistics of TCP Vegas

Start at: 2018-08-01 13:17:16
End at: 2018-08-01 13:17:46
Local clock offset: 0.21 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.07 Mbit/s
95th percentile per-packet one-way delay: 89.073 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 42.07 Mbit/s
95th percentile per-packet one-way delay: 89.073 ms
Loss rate: 0.63%
```

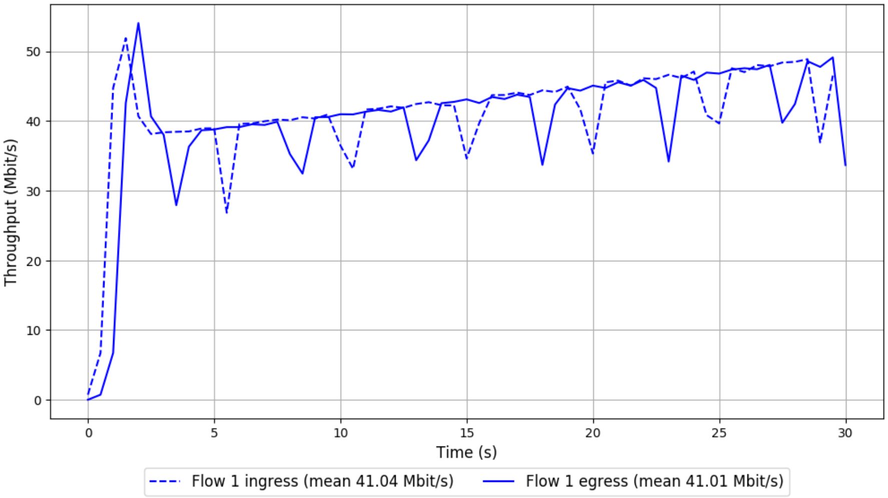
Run 3: Report of TCP Vegas — Data Link

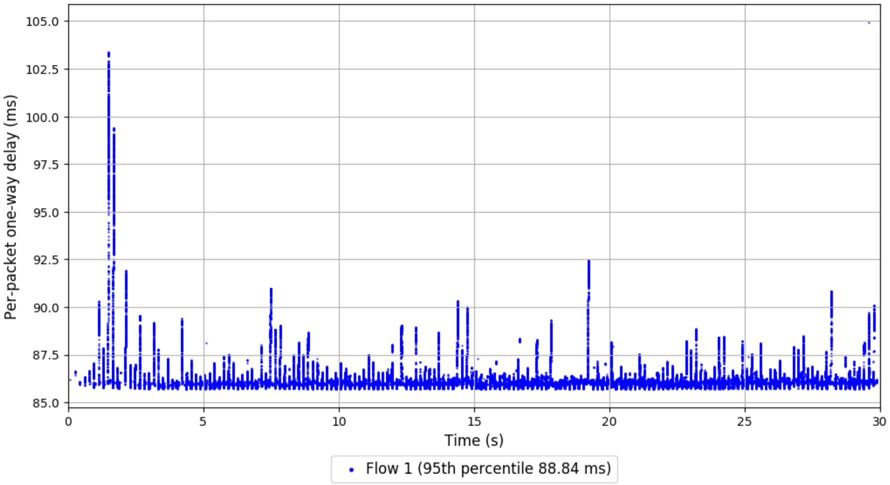




```
Run 4: Statistics of TCP Vegas

Start at: 2018-08-01 13:39:34
End at: 2018-08-01 13:40:04
Local clock offset: -0.111 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.01 Mbit/s
95th percentile per-packet one-way delay: 88.842 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 41.01 Mbit/s
95th percentile per-packet one-way delay: 88.842 ms
Loss rate: 0.67%
```

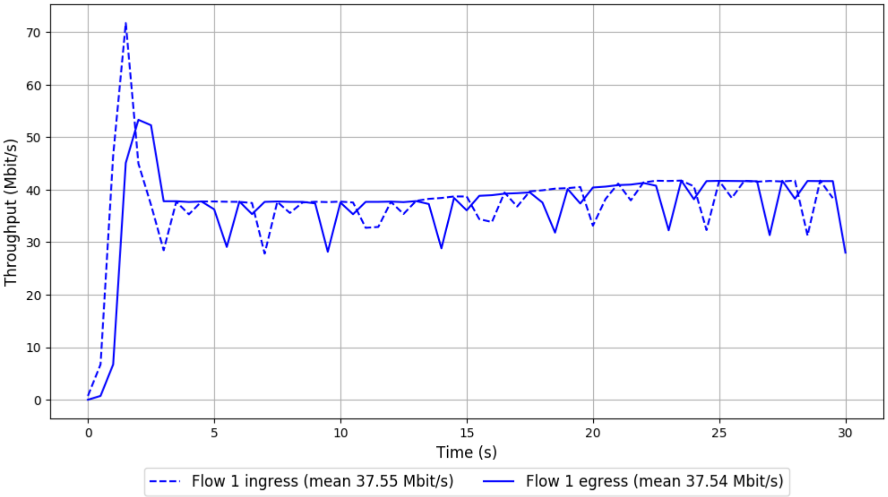
Run 4: Report of TCP Vegas — Data Link

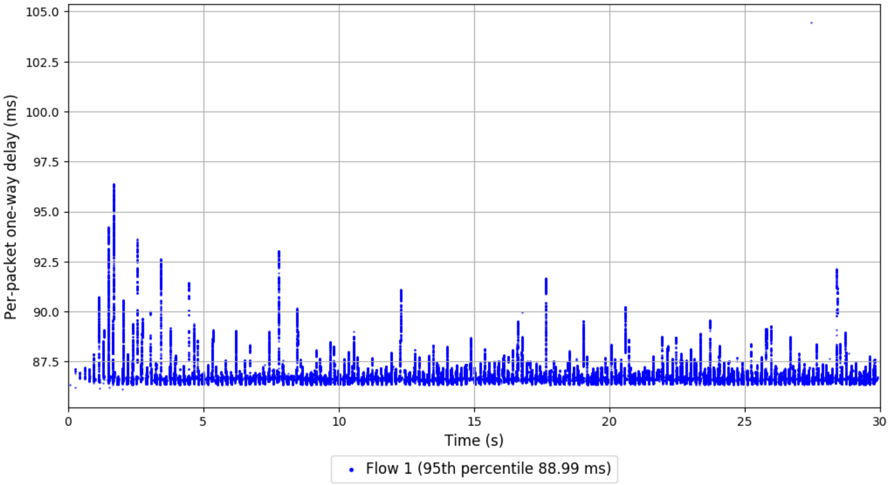




```
Run 5: Statistics of TCP Vegas

Start at: 2018-08-01 14:02:00
End at: 2018-08-01 14:02:30
Local clock offset: 0.173 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 88.993 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 88.993 ms
Loss rate: 0.62%
```

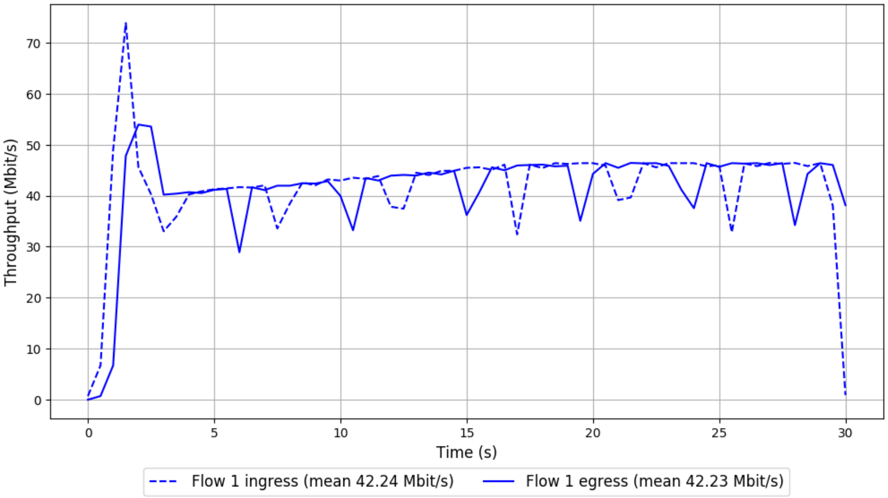
Run 5: Report of TCP Vegas — Data Link

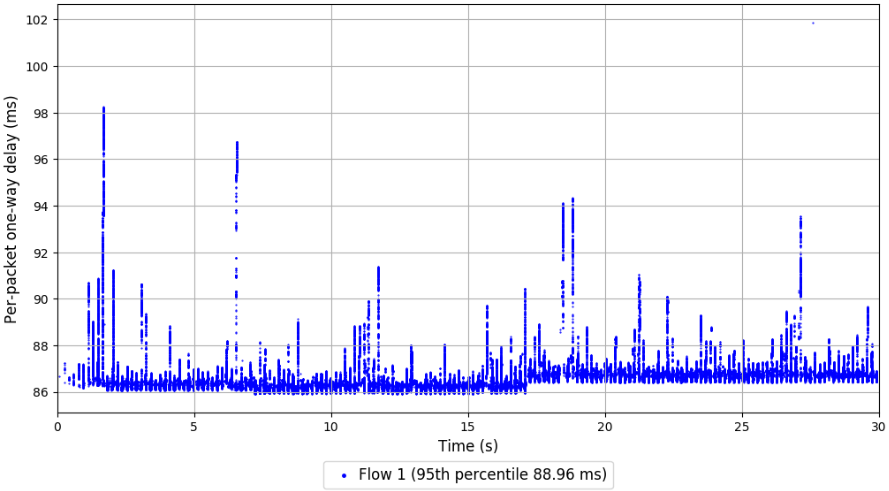




```
Run 6: Statistics of TCP Vegas

Start at: 2018-08-01 14:24:12
End at: 2018-08-01 14:24:42
Local clock offset: 0.187 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.23 Mbit/s
95th percentile per-packet one-way delay: 88.956 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 42.23 Mbit/s
95th percentile per-packet one-way delay: 88.956 ms
Loss rate: 0.61%
```

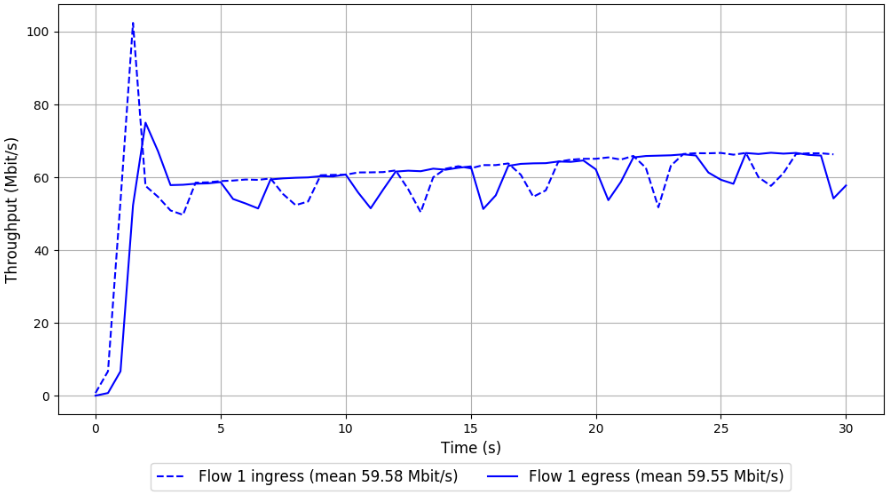
Run 6: Report of TCP Vegas — Data Link

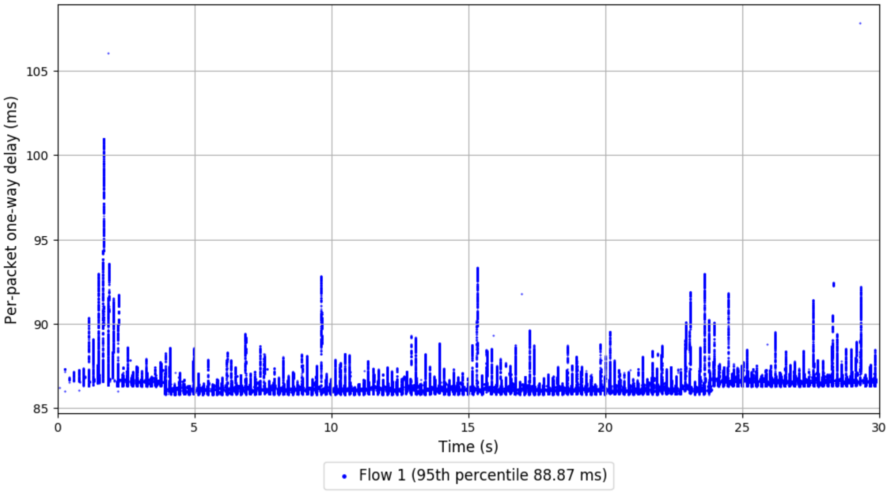




```
Run 7: Statistics of TCP Vegas

Start at: 2018-08-01 14:46:25
End at: 2018-08-01 14:46:55
Local clock offset: -0.012 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.55 Mbit/s
95th percentile per-packet one-way delay: 88.866 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 59.55 Mbit/s
95th percentile per-packet one-way delay: 88.866 ms
Loss rate: 0.62%
```

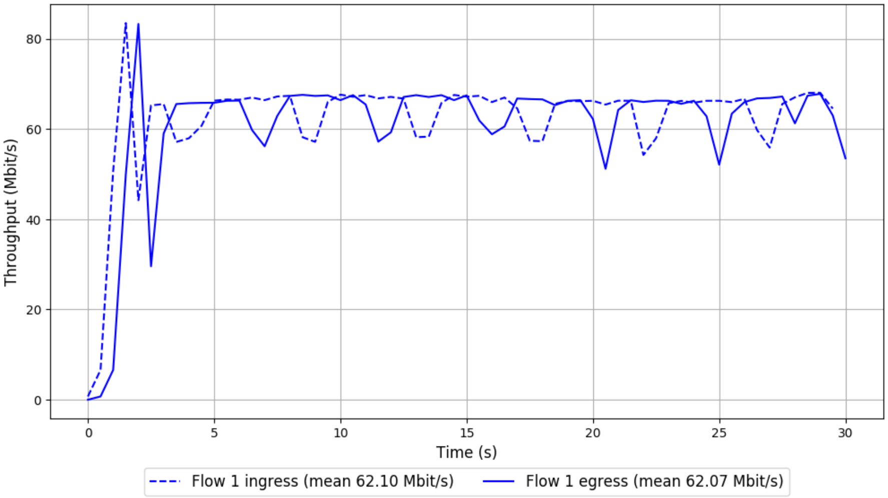
Run 7: Report of TCP Vegas — Data Link

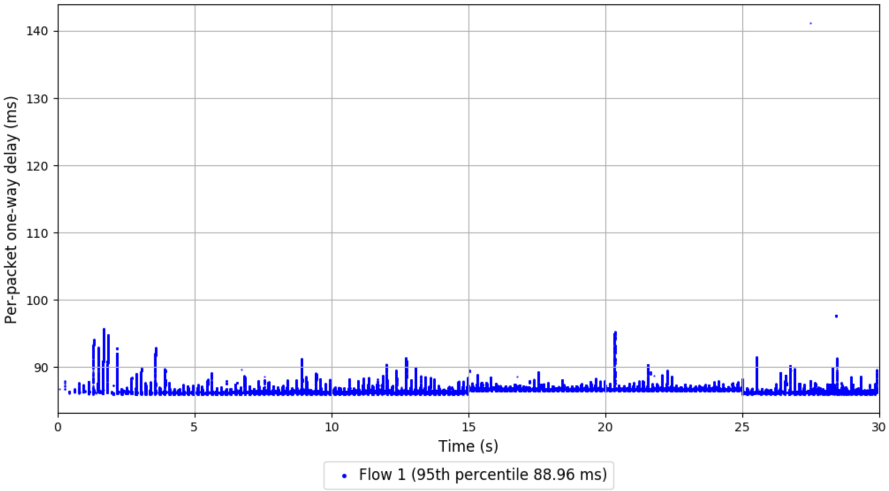




```
Run 8: Statistics of TCP Vegas

Start at: 2018-08-01 15:08:34
End at: 2018-08-01 15:09:04
Local clock offset: 0.245 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.07 Mbit/s
95th percentile per-packet one-way delay: 88.956 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 62.07 Mbit/s
95th percentile per-packet one-way delay: 88.956 ms
Loss rate: 0.61%
```

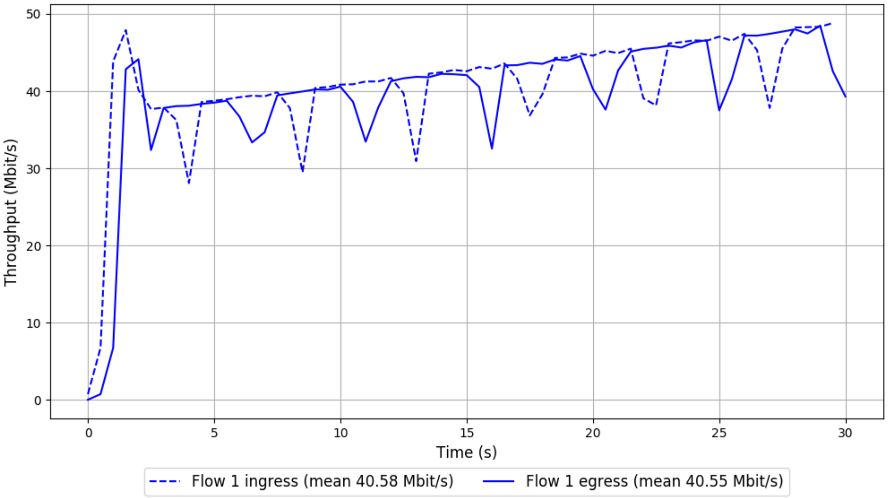
Run 8: Report of TCP Vegas — Data Link

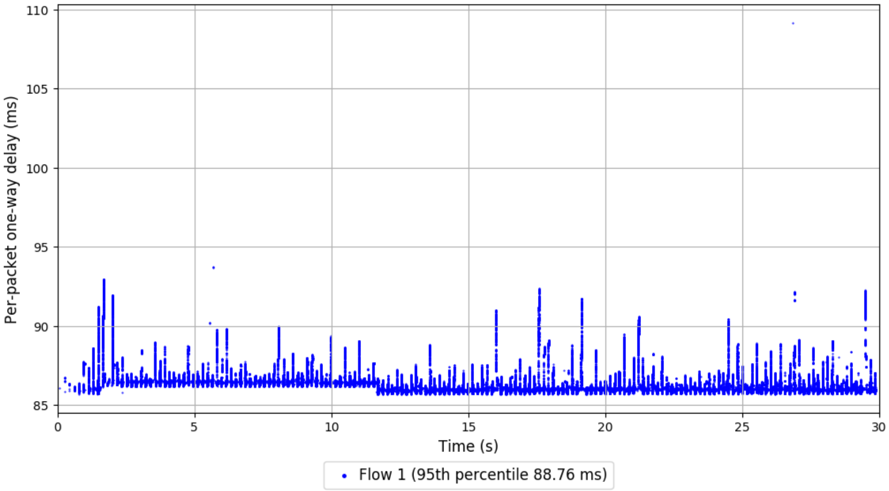




```
Run 9: Statistics of TCP Vegas

Start at: 2018-08-01 15:30:27
End at: 2018-08-01 15:30:57
Local clock offset: -0.066 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 88.757 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 88.757 ms
Loss rate: 0.67%
```

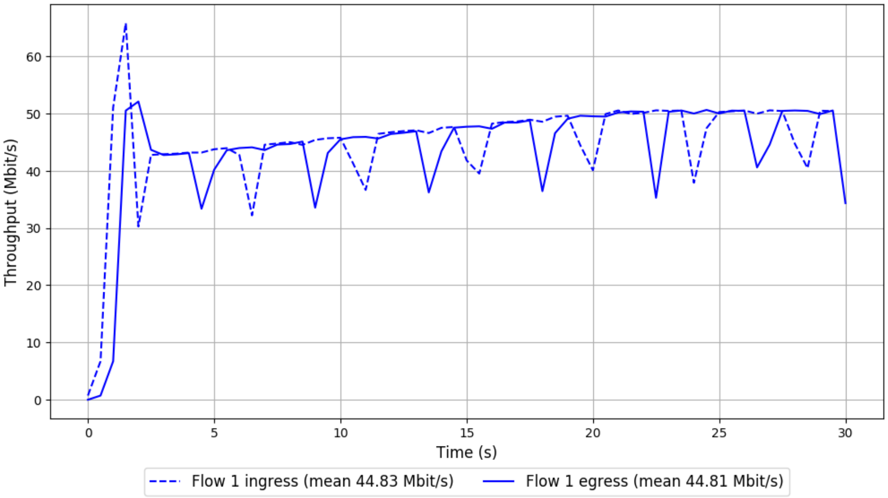
Run 9: Report of TCP Vegas — Data Link

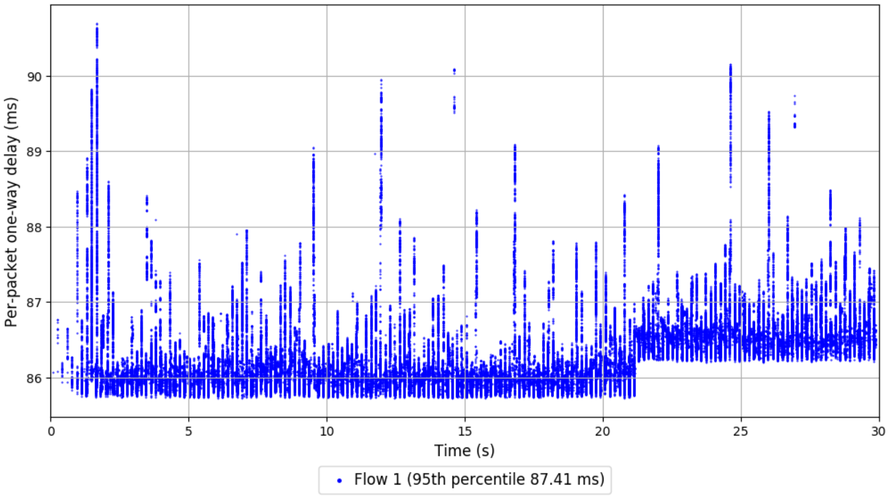




```
Run 10: Statistics of TCP Vegas

Start at: 2018-08-01 15:52:48
End at: 2018-08-01 15:53:18
Local clock offset: -0.097 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.81 Mbit/s
95th percentile per-packet one-way delay: 87.411 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 44.81 Mbit/s
95th percentile per-packet one-way delay: 87.411 ms
Loss rate: 0.63%
```

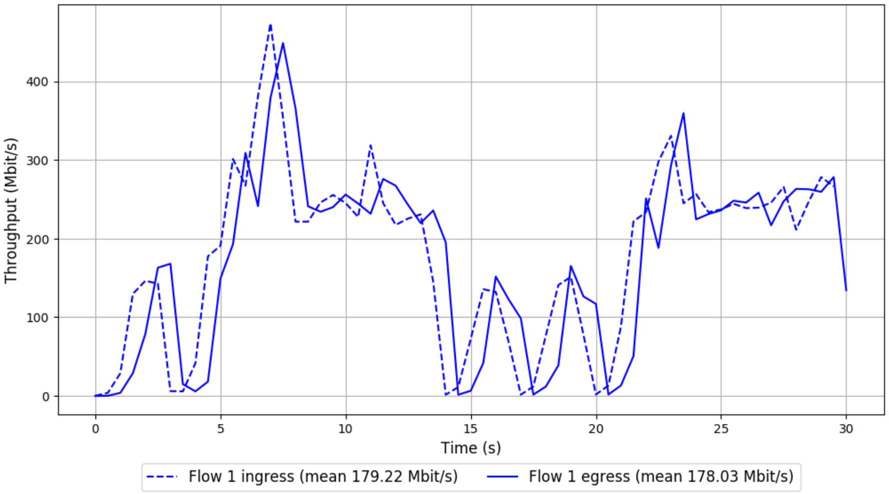
Run 10: Report of TCP Vegas — Data Link

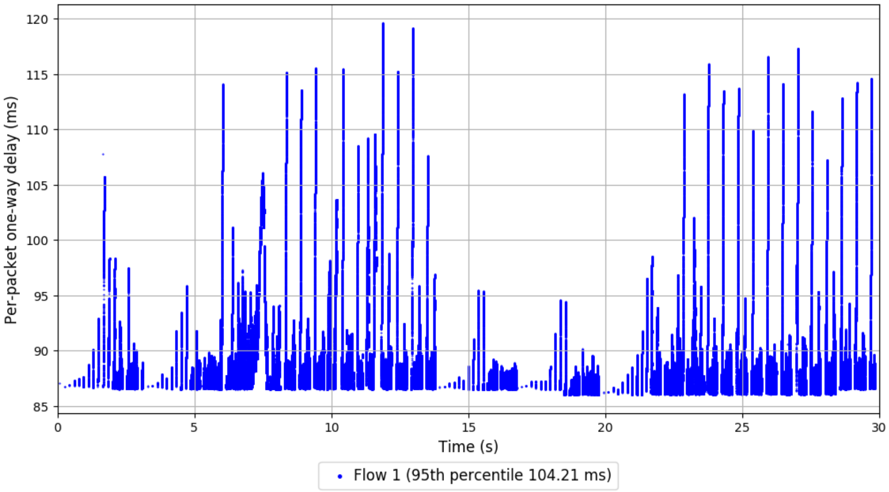




```
Run 1: Statistics of Verus

Start at: 2018-08-01 12:26:30
End at: 2018-08-01 12:27:00
Local clock offset: 0.153 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.03 Mbit/s
95th percentile per-packet one-way delay: 104.208 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 178.03 Mbit/s
95th percentile per-packet one-way delay: 104.208 ms
Loss rate: 1.23%
```

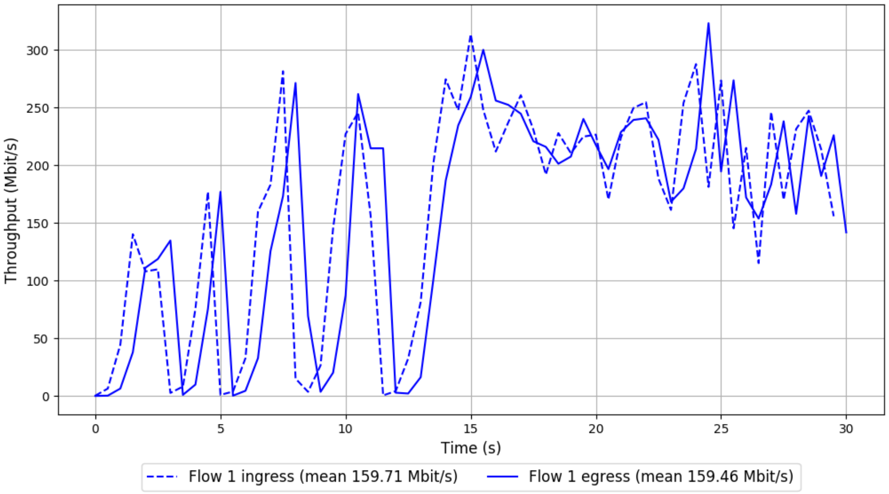
Run 1: Report of Verus — Data Link

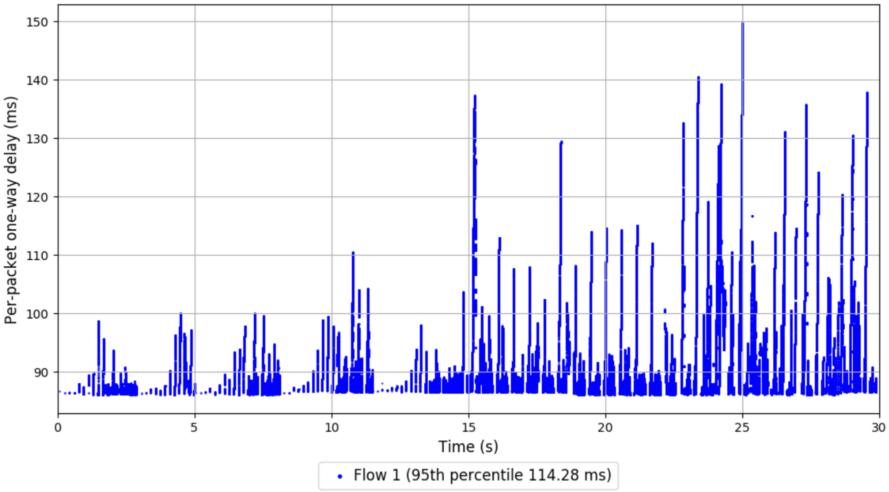




```
Run 2: Statistics of Verus

Start at: 2018-08-01 12:48:40
End at: 2018-08-01 12:49:10
Local clock offset: 0.197 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-08-01 17:32:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 159.46 Mbit/s
95th percentile per-packet one-way delay: 114.283 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 159.46 Mbit/s
95th percentile per-packet one-way delay: 114.283 ms
Loss rate: 0.71%
```

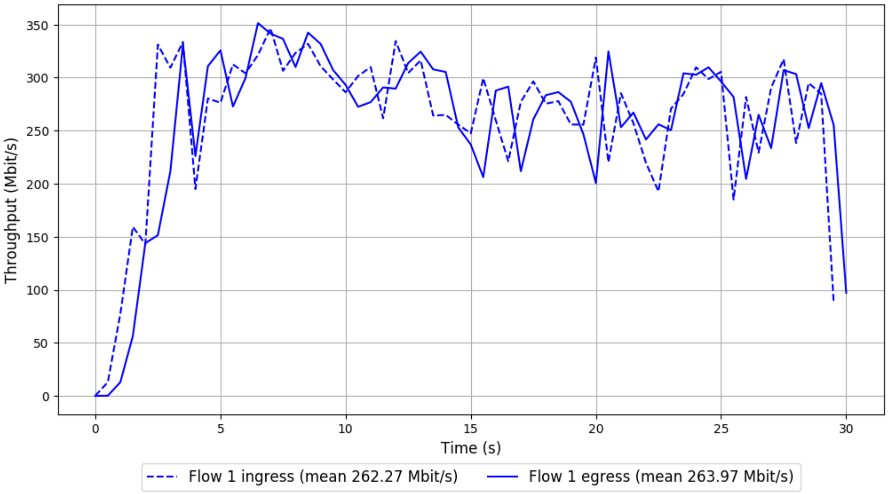
Run 2: Report of Verus — Data Link

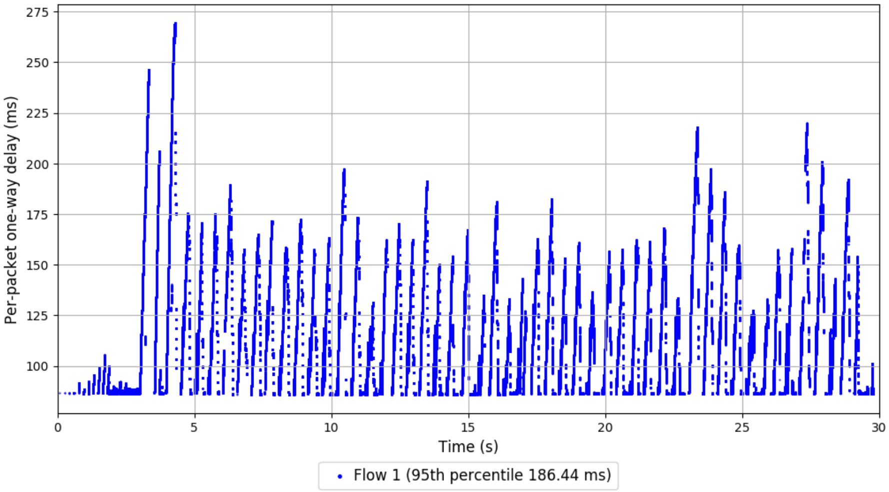




```
Run 3: Statistics of Verus

Start at: 2018-08-01 13:10:32
End at: 2018-08-01 13:11:02
Local clock offset: 0.077 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-08-01 17:33:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 263.97 Mbit/s
95th percentile per-packet one-way delay: 186.442 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 263.97 Mbit/s
95th percentile per-packet one-way delay: 186.442 ms
Loss rate: 0.19%
```

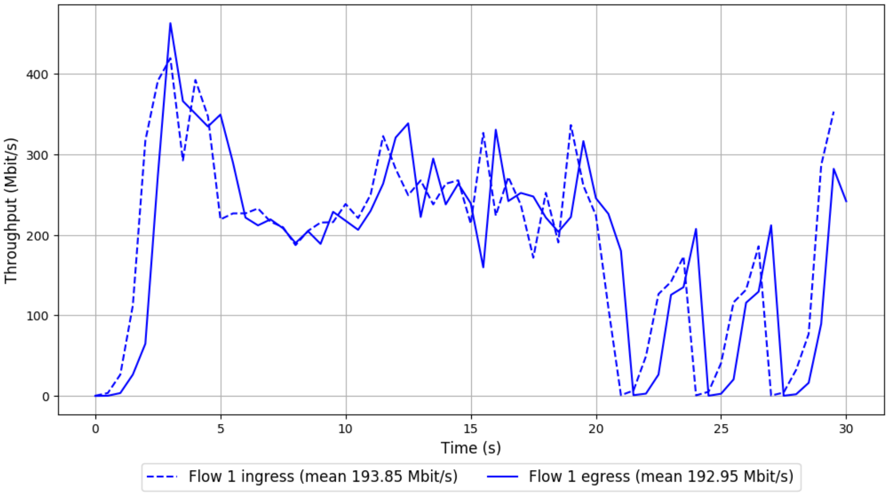
Run 3: Report of Verus — Data Link

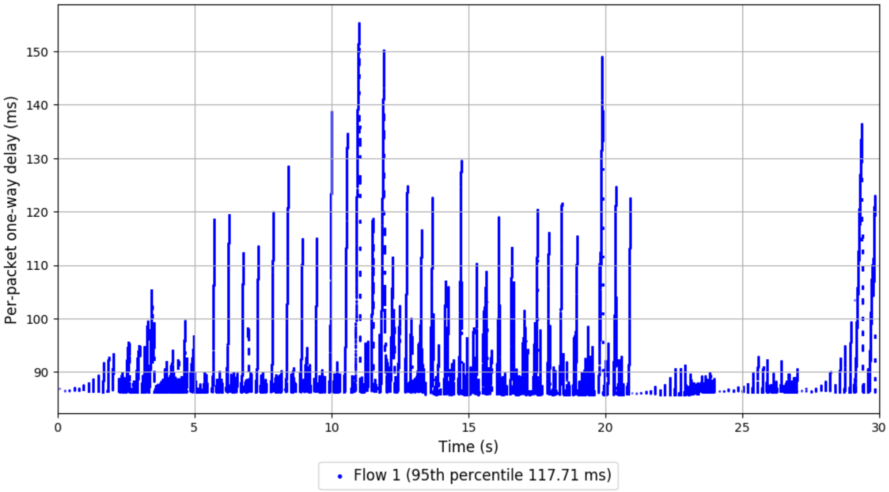




```
Run 4: Statistics of Verus

Start at: 2018-08-01 13:32:55
End at: 2018-08-01 13:33:25
Local clock offset: -0.087 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-08-01 17:33:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.95 Mbit/s
95th percentile per-packet one-way delay: 117.708 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 192.95 Mbit/s
95th percentile per-packet one-way delay: 117.708 ms
Loss rate: 1.05%
```

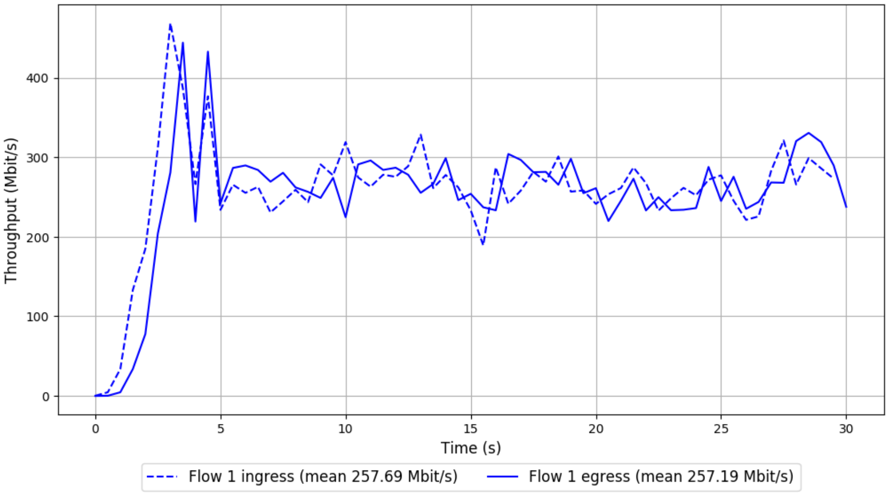
Run 4: Report of Verus — Data Link

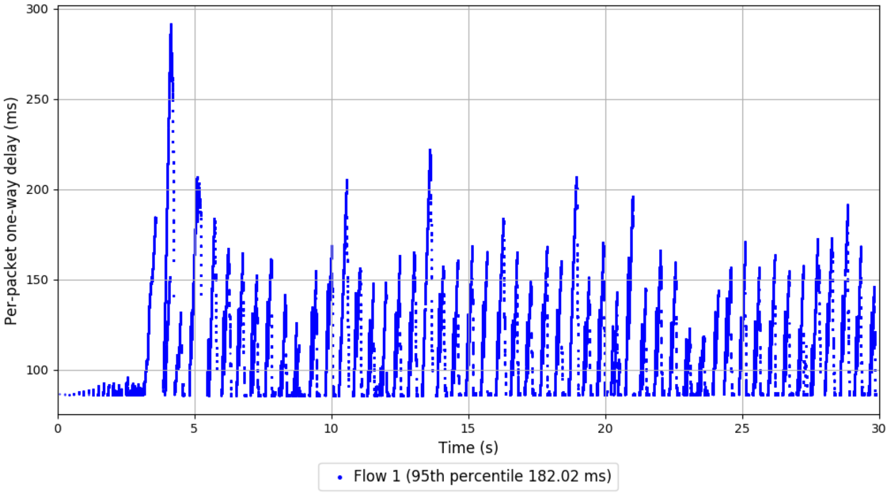




```
Run 5: Statistics of Verus

Start at: 2018-08-01 13:55:15
End at: 2018-08-01 13:55:45
Local clock offset: -0.163 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-08-01 17:33:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.19 Mbit/s
95th percentile per-packet one-way delay: 182.023 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 257.19 Mbit/s
95th percentile per-packet one-way delay: 182.023 ms
Loss rate: 0.51%
```

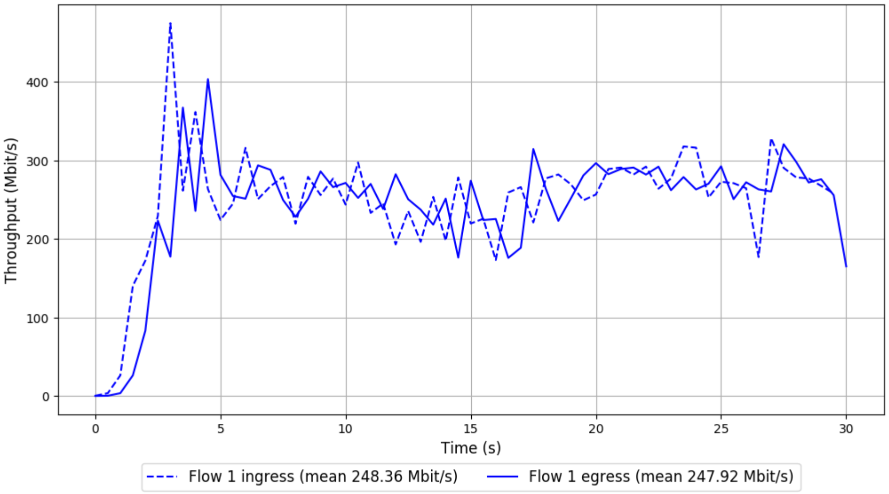
Run 5: Report of Verus — Data Link

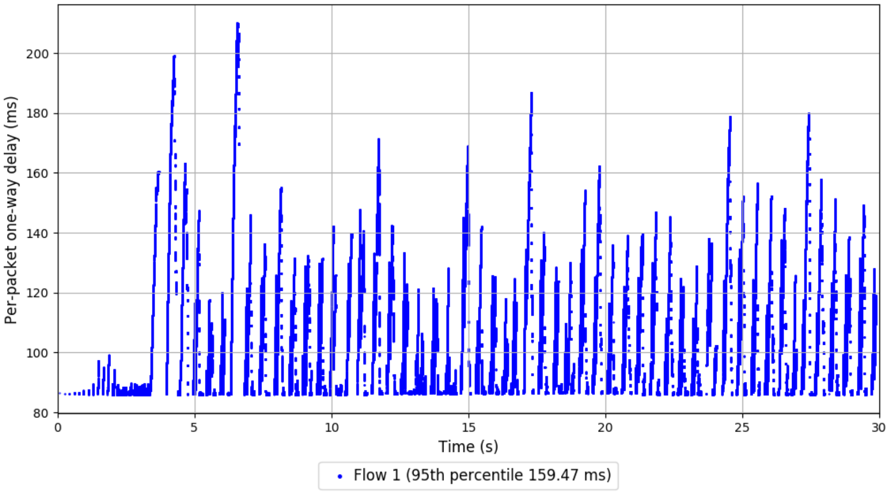




```
Run 6: Statistics of Verus

Start at: 2018-08-01 14:17:27
End at: 2018-08-01 14:17:58
Local clock offset: 0.049 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-08-01 17:35:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 247.92 Mbit/s
95th percentile per-packet one-way delay: 159.471 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 247.92 Mbit/s
95th percentile per-packet one-way delay: 159.471 ms
Loss rate: 0.75%
```

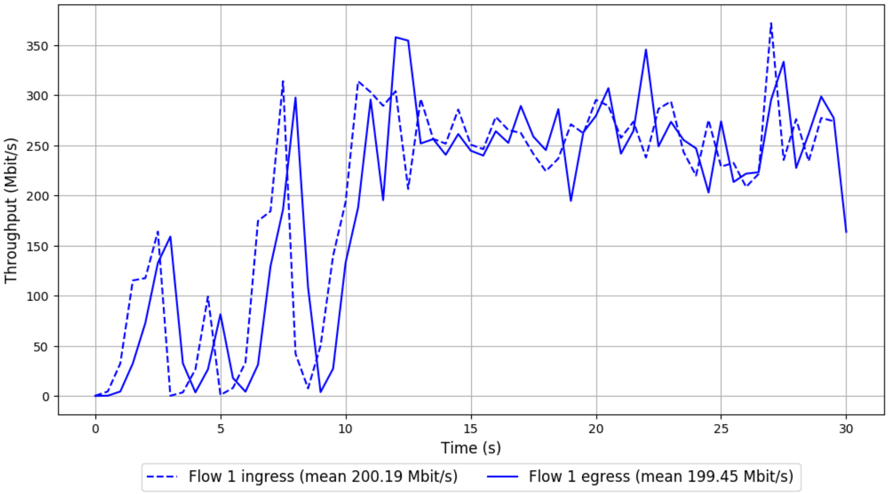
Run 6: Report of Verus — Data Link

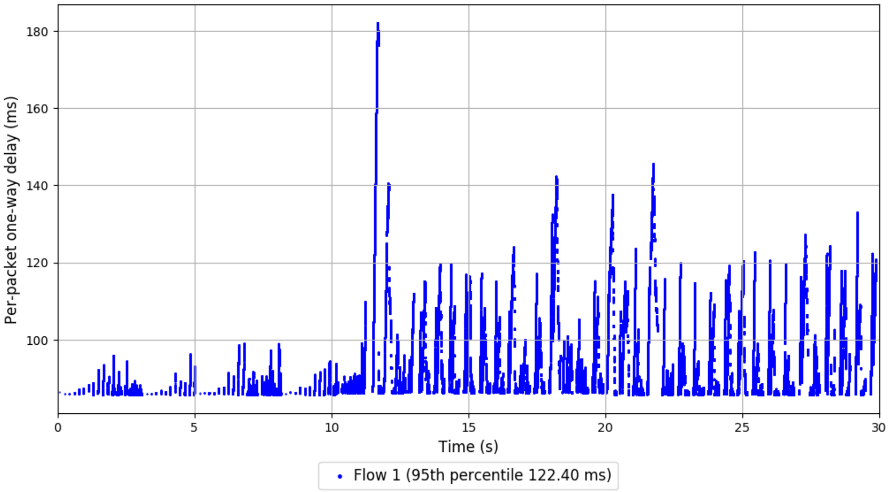




```
Run 7: Statistics of Verus

Start at: 2018-08-01 14:39:49
End at: 2018-08-01 14:40:19
Local clock offset: -0.151 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-08-01 17:35:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.45 Mbit/s
95th percentile per-packet one-way delay: 122.403 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 199.45 Mbit/s
95th percentile per-packet one-way delay: 122.403 ms
Loss rate: 0.92%
```

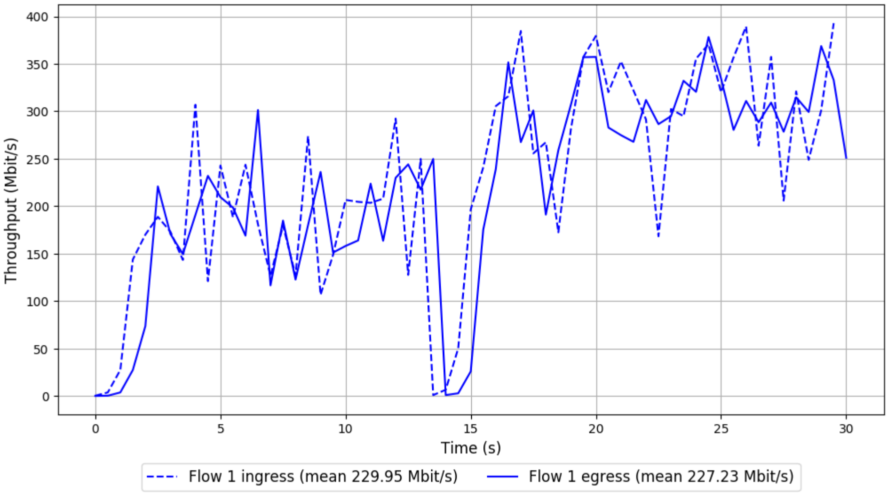
Run 7: Report of Verus — Data Link

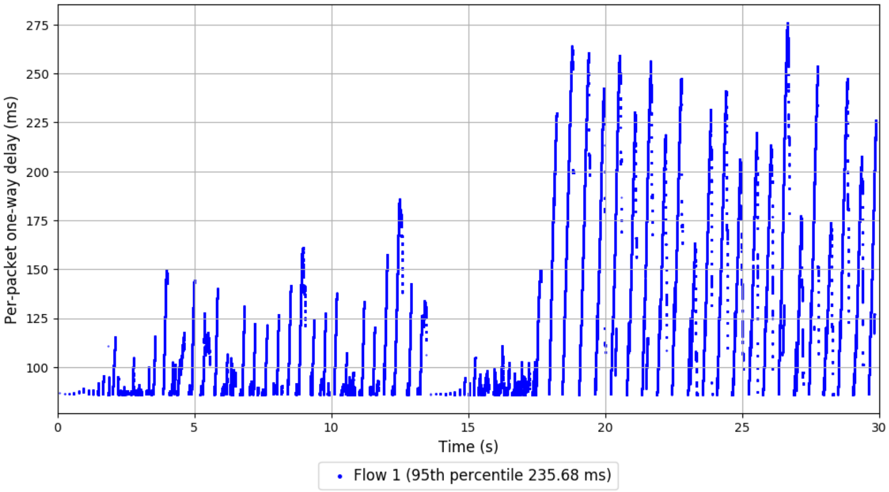




```
Run 8: Statistics of Verus

Start at: 2018-08-01 15:01:54
End at: 2018-08-01 15:02:24
Local clock offset: 0.069 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2018-08-01 17:35:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.23 Mbit/s
95th percentile per-packet one-way delay: 235.675 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 227.23 Mbit/s
95th percentile per-packet one-way delay: 235.675 ms
Loss rate: 1.43%
```

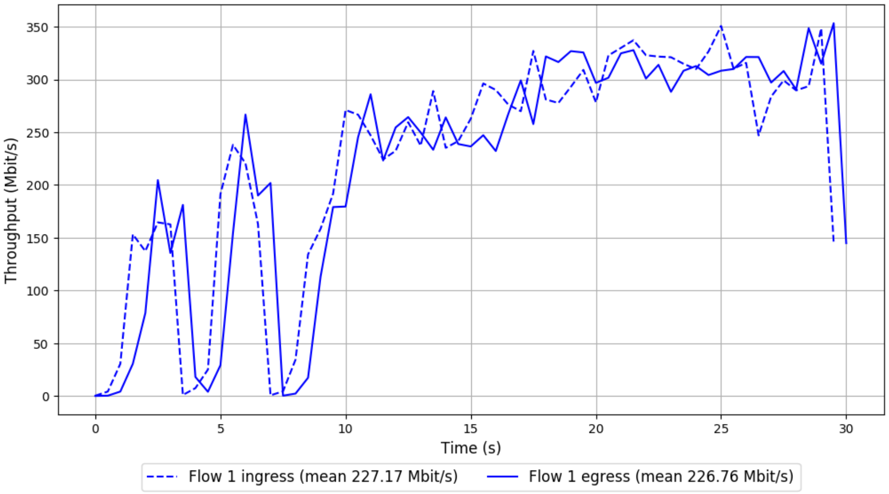
Run 8: Report of Verus — Data Link

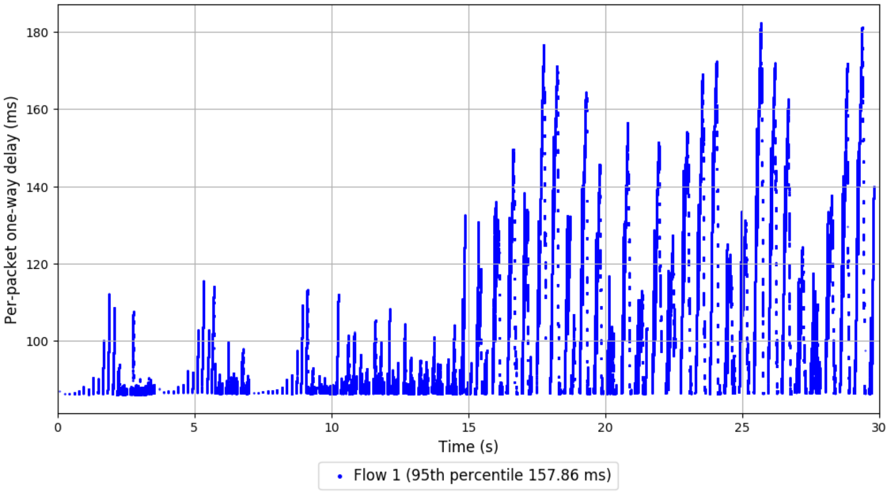




```
Run 9: Statistics of Verus

Start at: 2018-08-01 15:23:46
End at: 2018-08-01 15:24:16
Local clock offset: 0.187 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-08-01 17:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.76 Mbit/s
95th percentile per-packet one-way delay: 157.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.76 Mbit/s
95th percentile per-packet one-way delay: 157.861 ms
Loss rate: 0.00%
```

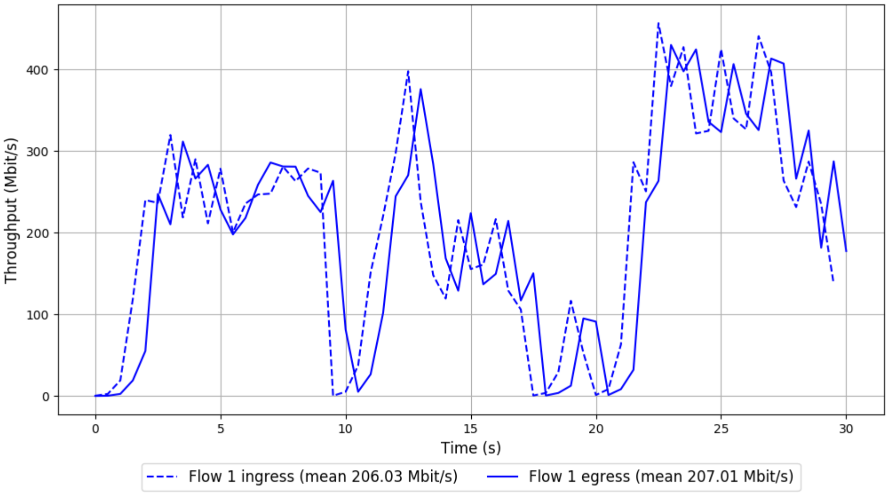
Run 9: Report of Verus — Data Link

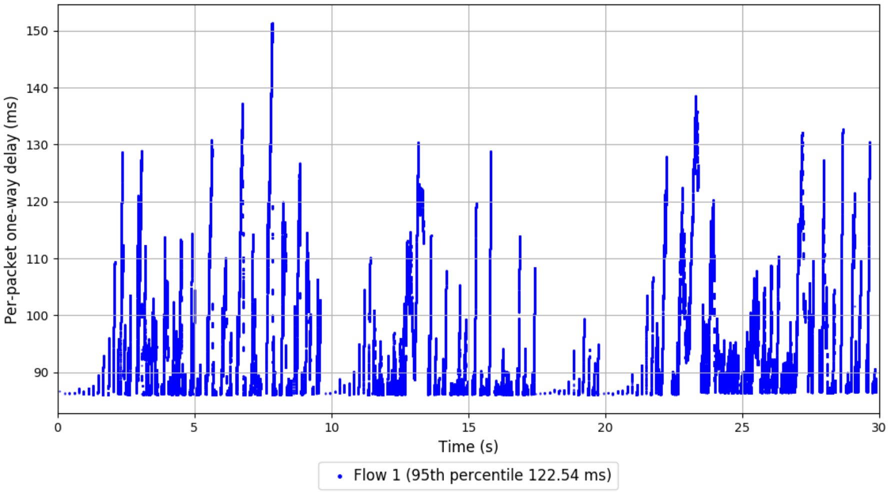




```
Run 10: Statistics of Verus

Start at: 2018-08-01 15:46:06
End at: 2018-08-01 15:46:36
Local clock offset: 0.048 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-08-01 17:35:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.01 Mbit/s
95th percentile per-packet one-way delay: 122.544 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 207.01 Mbit/s
95th percentile per-packet one-way delay: 122.544 ms
Loss rate: 0.10%
```

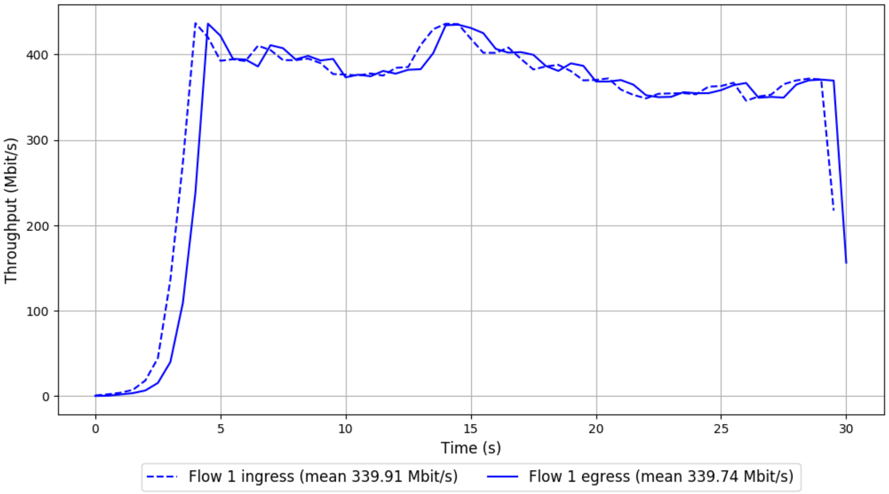
Run 10: Report of Verus — Data Link

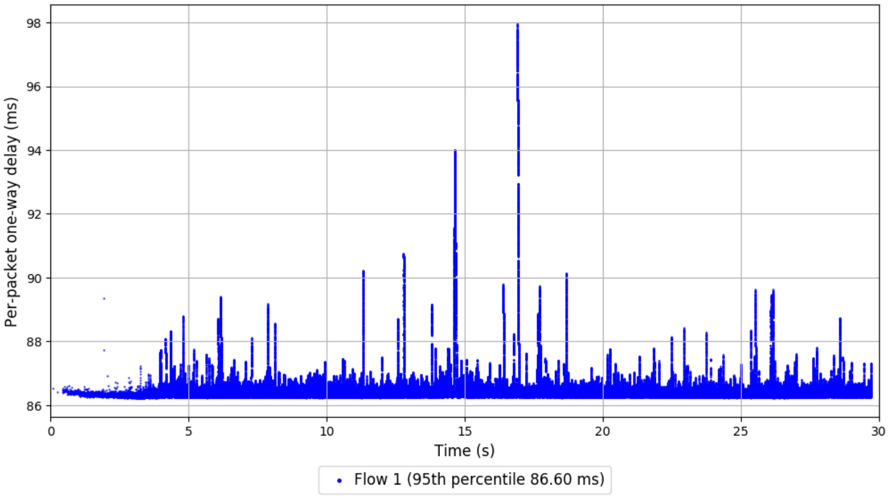




```
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-01 12:23:19
End at: 2018-08-01 12:23:49
Local clock offset: 0.194 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2018-08-01 17:38:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 339.74 Mbit/s
95th percentile per-packet one-way delay: 86.604 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 339.74 Mbit/s
95th percentile per-packet one-way delay: 86.604 ms
Loss rate: 0.63%
```

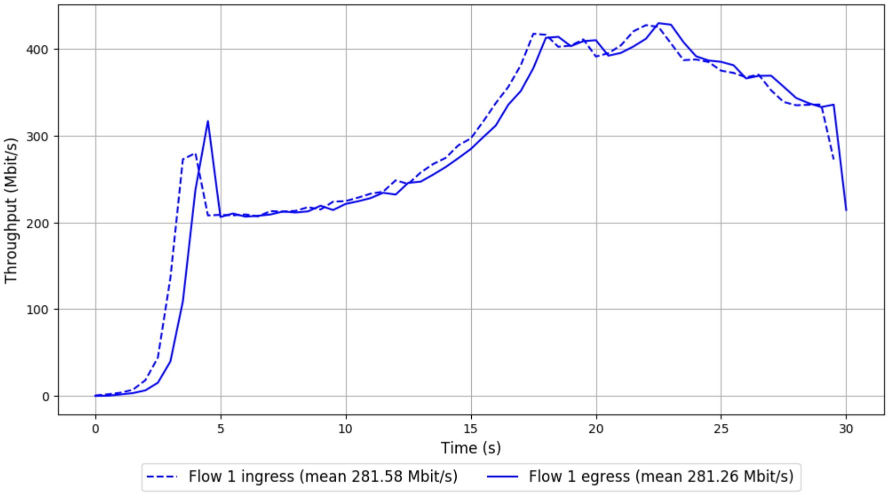
Run 1: Report of PCC-Vivace — Data Link

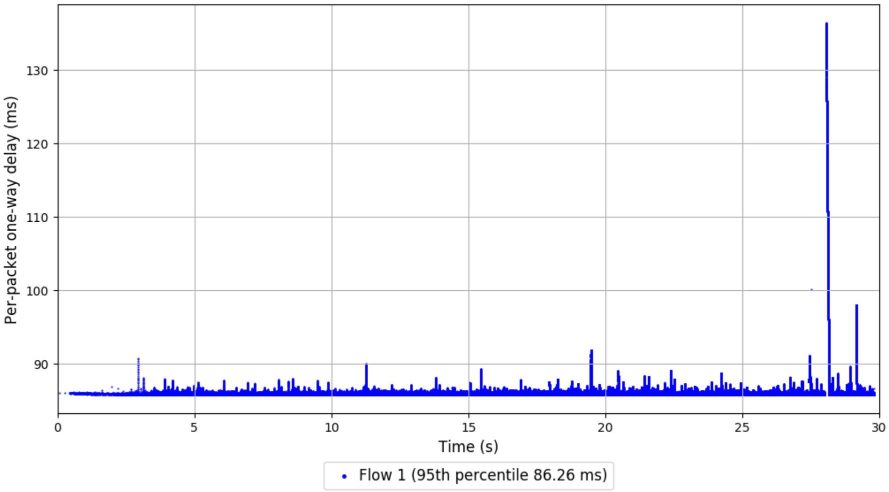




```
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-01 12:45:32
End at: 2018-08-01 12:46:03
Local clock offset: -0.049 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-08-01 17:38:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.26 Mbit/s
95th percentile per-packet one-way delay: 86.257 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 281.26 Mbit/s
95th percentile per-packet one-way delay: 86.257 ms
Loss rate: 0.69%
```

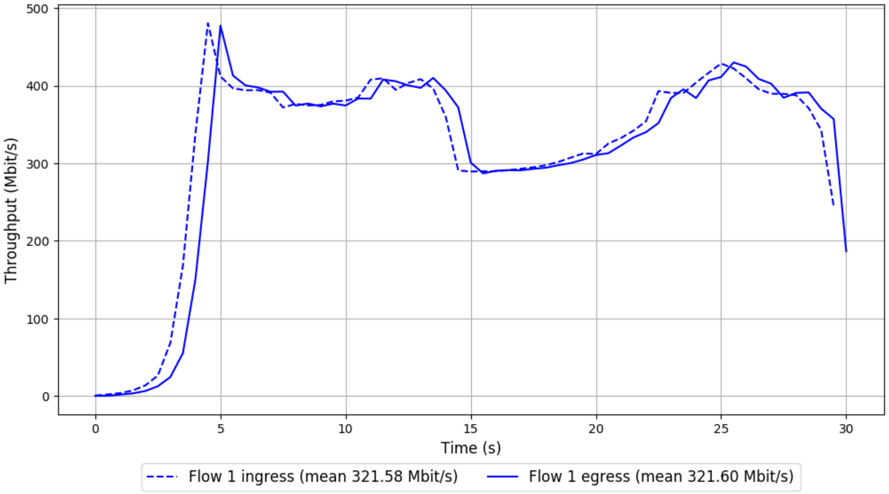
Run 2: Report of PCC-Vivace — Data Link

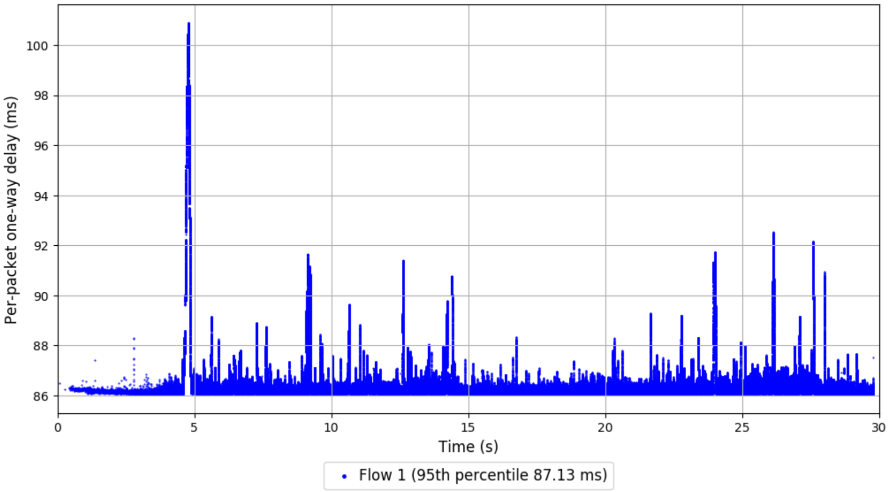




```
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-01 13:07:47
End at: 2018-08-01 13:08:17
Local clock offset: 0.158 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-08-01 17:39:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.60 Mbit/s
95th percentile per-packet one-way delay: 87.129 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 321.60 Mbit/s
95th percentile per-packet one-way delay: 87.129 ms
Loss rate: 0.57%
```

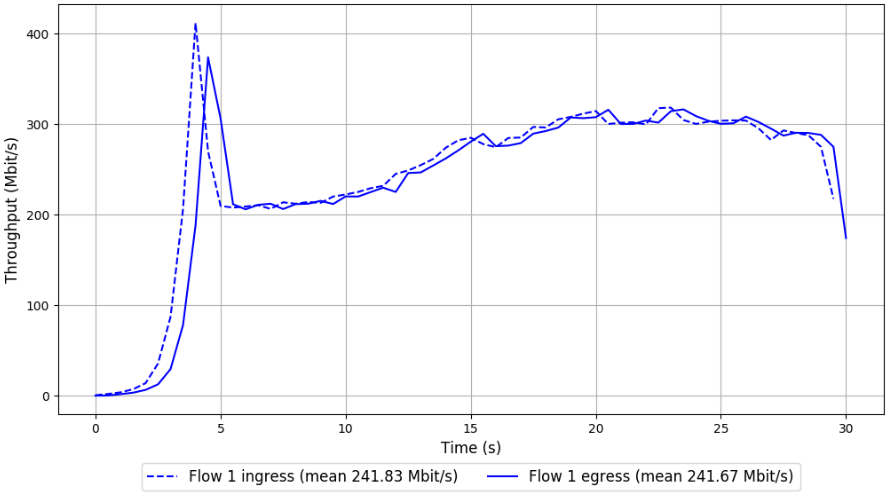
Run 3: Report of PCC-Vivace — Data Link

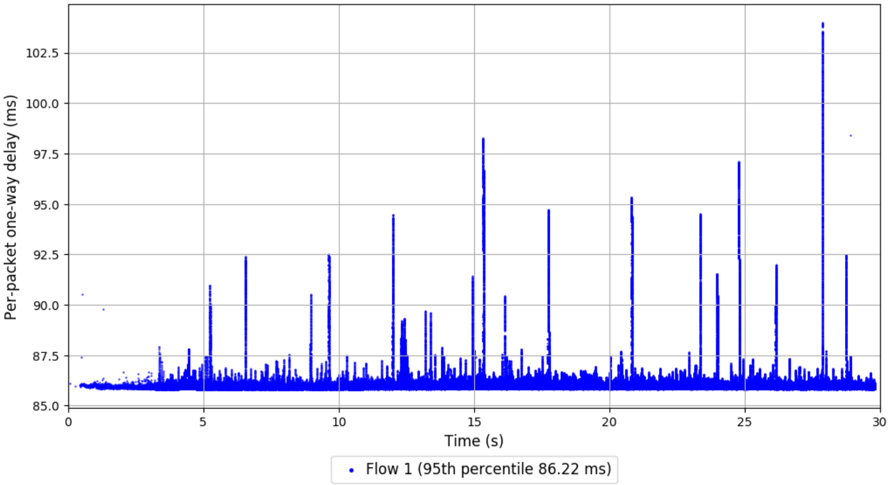




```
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-01 13:29:49
End at: 2018-08-01 13:30:19
Local clock offset: -0.006 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-08-01 17:39:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.67 Mbit/s
95th percentile per-packet one-way delay: 86.222 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 241.67 Mbit/s
95th percentile per-packet one-way delay: 86.222 ms
Loss rate: 0.64%
```

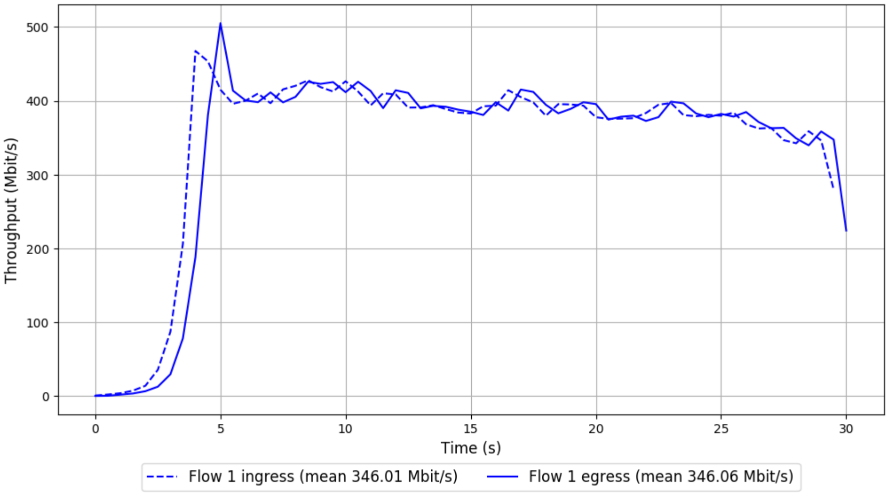
Run 4: Report of PCC-Vivace — Data Link

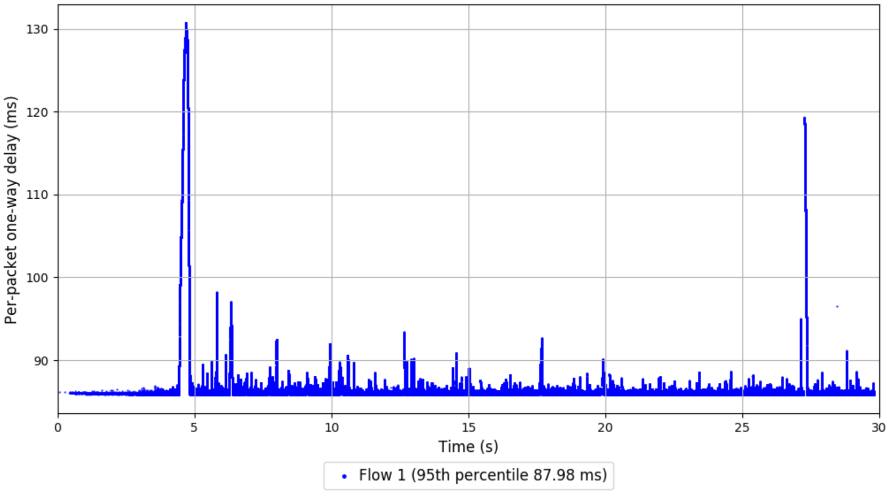




```
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-01 13:52:02
End at: 2018-08-01 13:52:32
Local clock offset: 0.083 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-08-01 17:40:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 346.06 Mbit/s
95th percentile per-packet one-way delay: 87.985 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 346.06 Mbit/s
95th percentile per-packet one-way delay: 87.985 ms
Loss rate: 0.56%
```

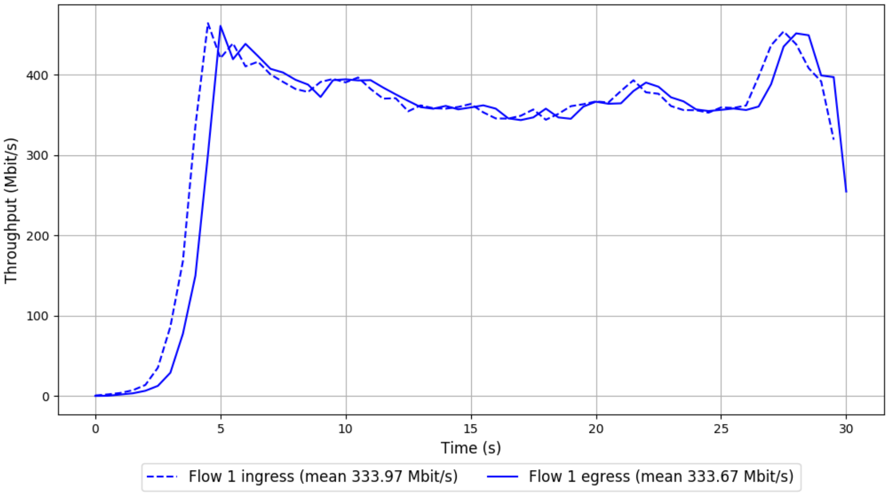
Run 5: Report of PCC-Vivace — Data Link

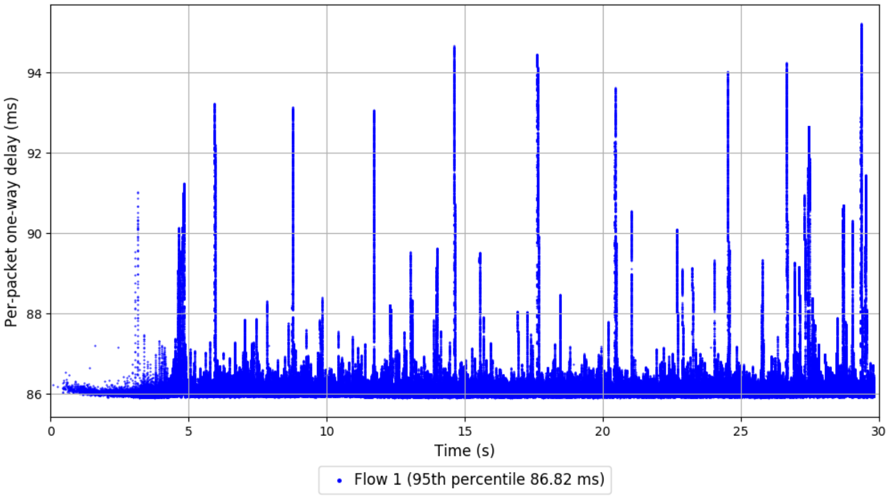




```
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-01 14:14:27
End at: 2018-08-01 14:14:57
Local clock offset: 0.026 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-08-01 17:40:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 333.67 Mbit/s
95th percentile per-packet one-way delay: 86.818 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 333.67 Mbit/s
95th percentile per-packet one-way delay: 86.818 ms
Loss rate: 0.67%
```

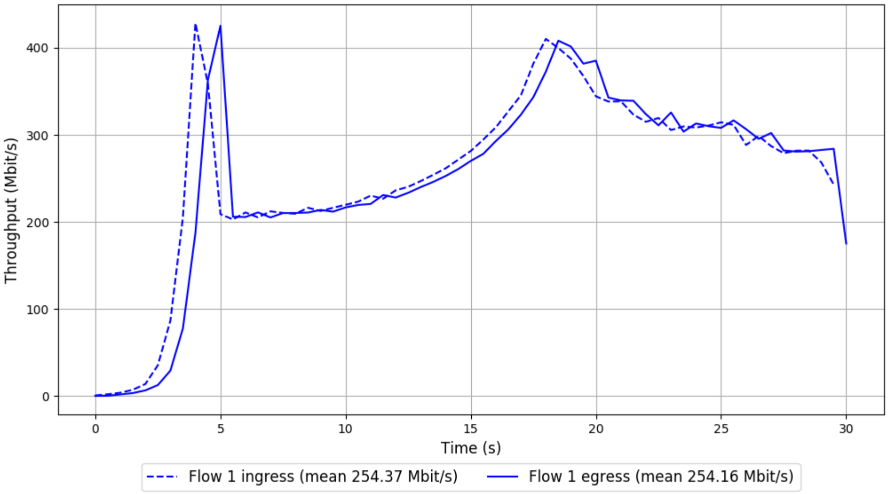
Run 6: Report of PCC-Vivace — Data Link

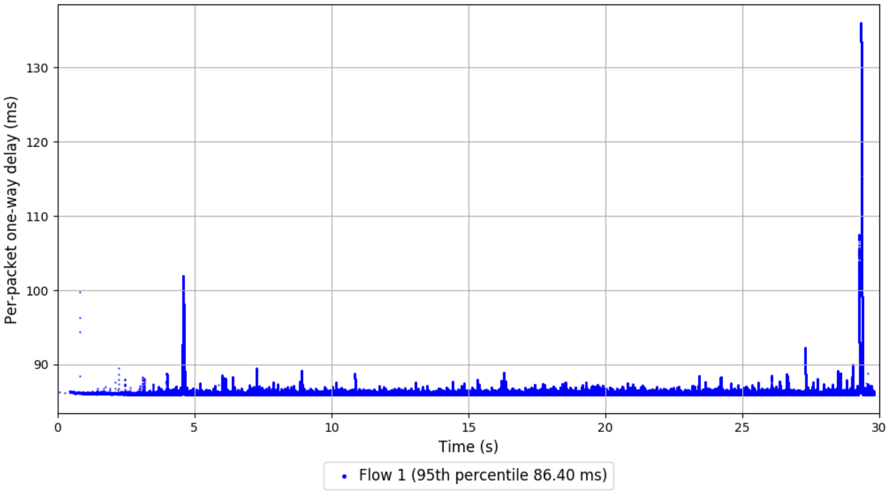




```
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-01 14:36:40
End at: 2018-08-01 14:37:10
Local clock offset: 0.099 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-08-01 17:40:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.16 Mbit/s
95th percentile per-packet one-way delay: 86.401 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 254.16 Mbit/s
95th percentile per-packet one-way delay: 86.401 ms
Loss rate: 0.66%
```

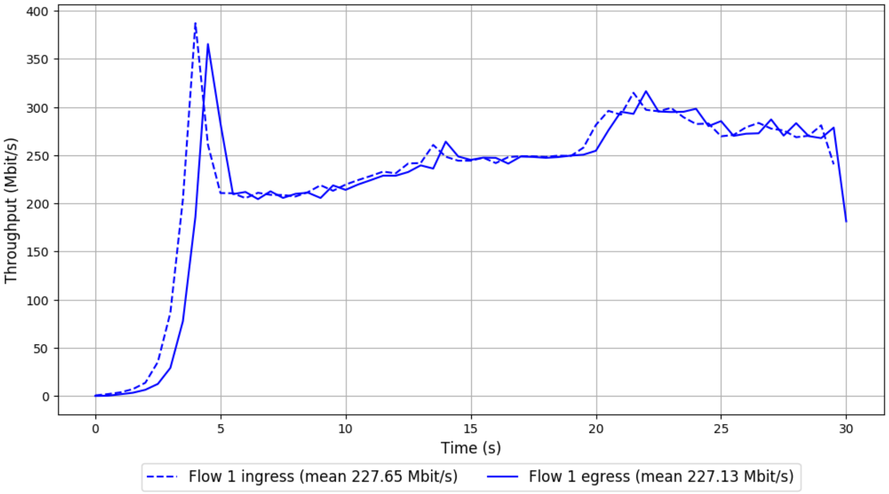
Run 7: Report of PCC-Vivace — Data Link

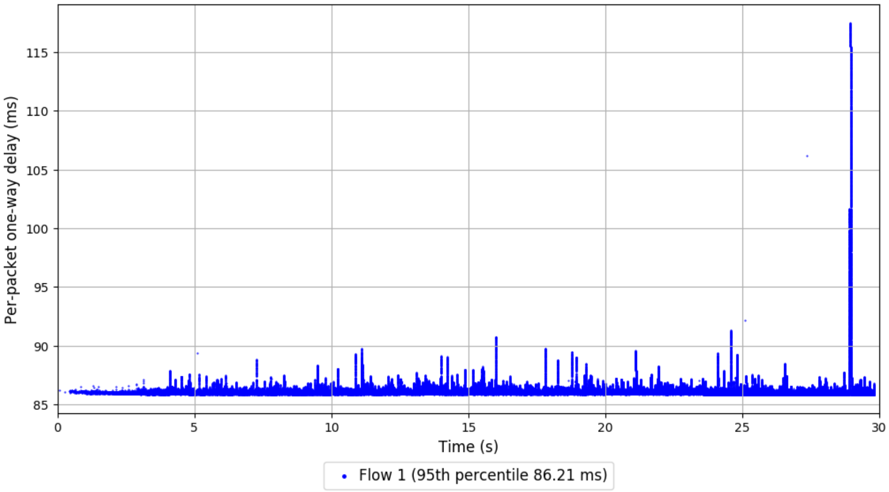




```
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-01 14:58:55
End at: 2018-08-01 14:59:25
Local clock offset: 0.061 ms
Remote clock offset: -0.15 ms

# Below is generated by plot.py at 2018-08-01 17:40:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.13 Mbit/s
95th percentile per-packet one-way delay: 86.209 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 227.13 Mbit/s
95th percentile per-packet one-way delay: 86.209 ms
Loss rate: 0.81%
```

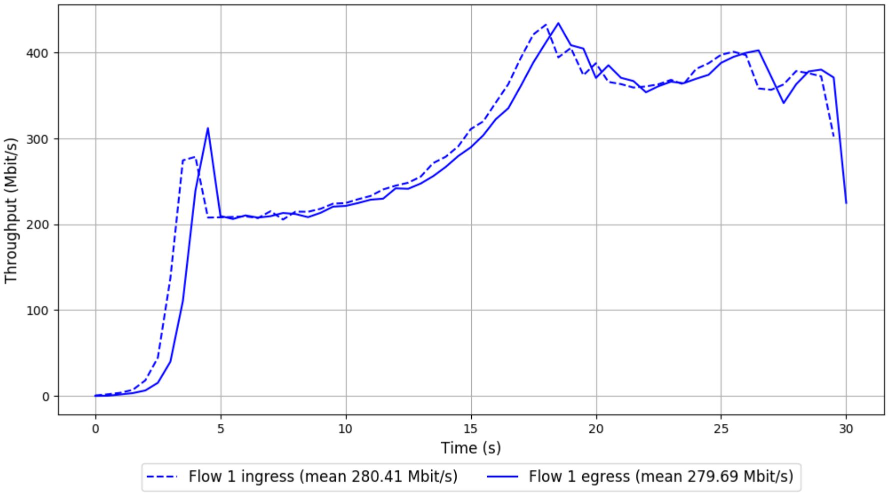
Run 8: Report of PCC-Vivace — Data Link

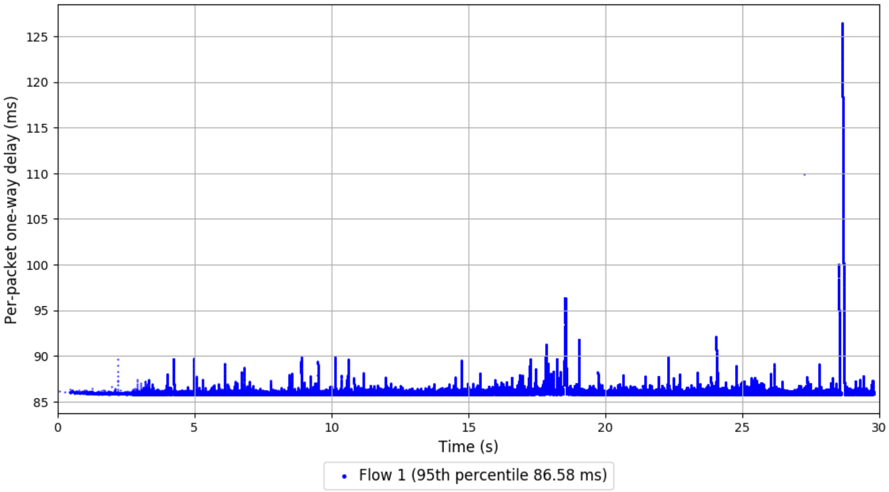




```
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-01 15:21:04
End at: 2018-08-01 15:21:34
Local clock offset: -0.086 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.69 Mbit/s
95th percentile per-packet one-way delay: 86.577 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 279.69 Mbit/s
95th percentile per-packet one-way delay: 86.577 ms
Loss rate: 0.84%
```

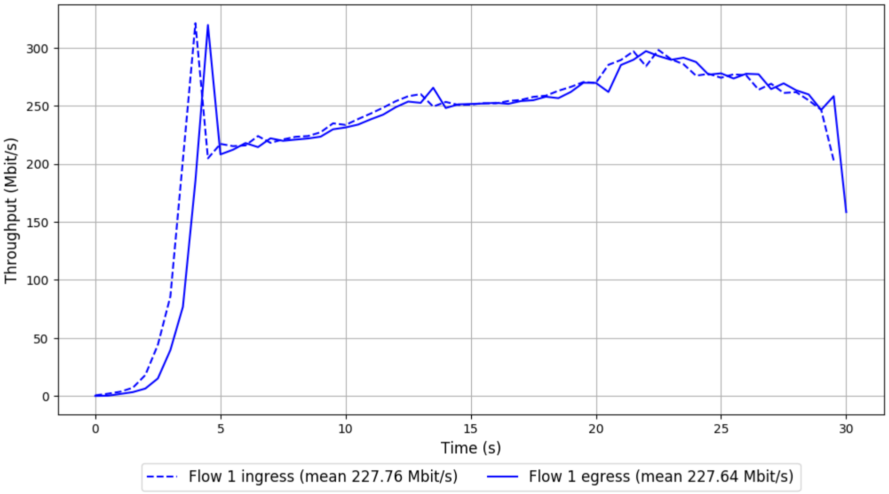
Run 9: Report of PCC-Vivace — Data Link

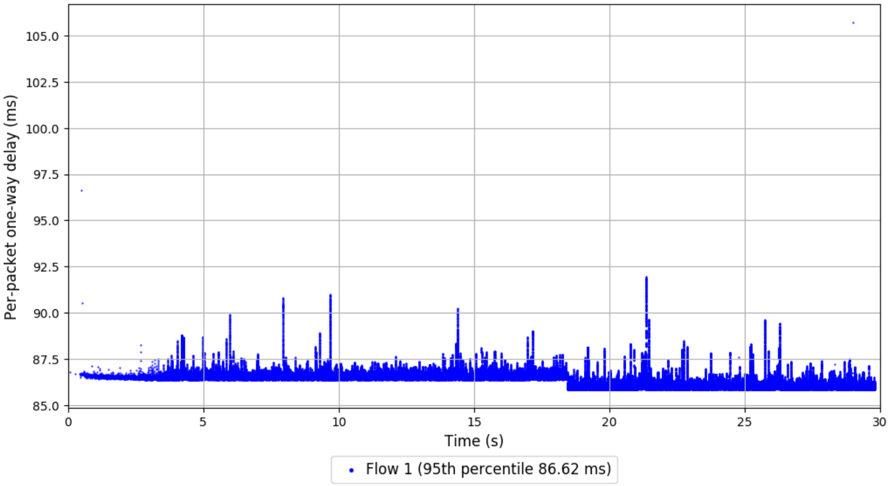




```
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-01 15:43:00
End at: 2018-08-01 15:43:30
Local clock offset: 0.01 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.64 Mbit/s
95th percentile per-packet one-way delay: 86.620 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 227.64 Mbit/s
95th percentile per-packet one-way delay: 86.620 ms
Loss rate: 0.63%
```

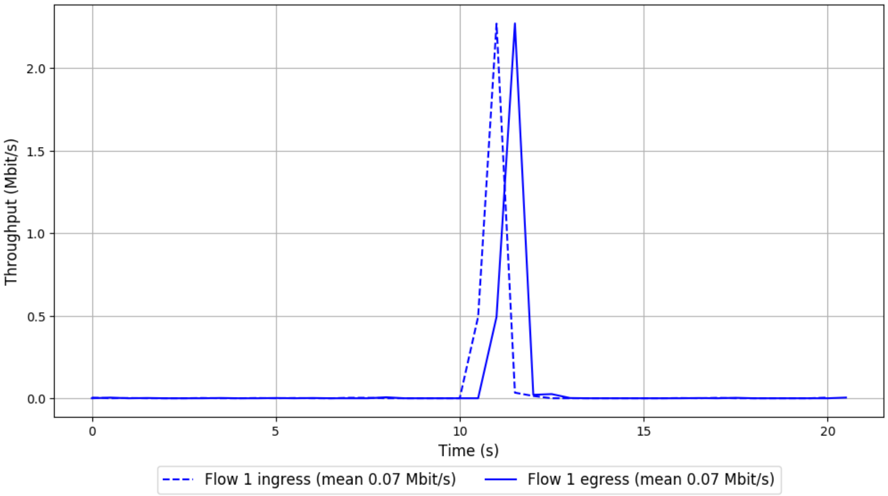
Run 10: Report of PCC-Vivace — Data Link

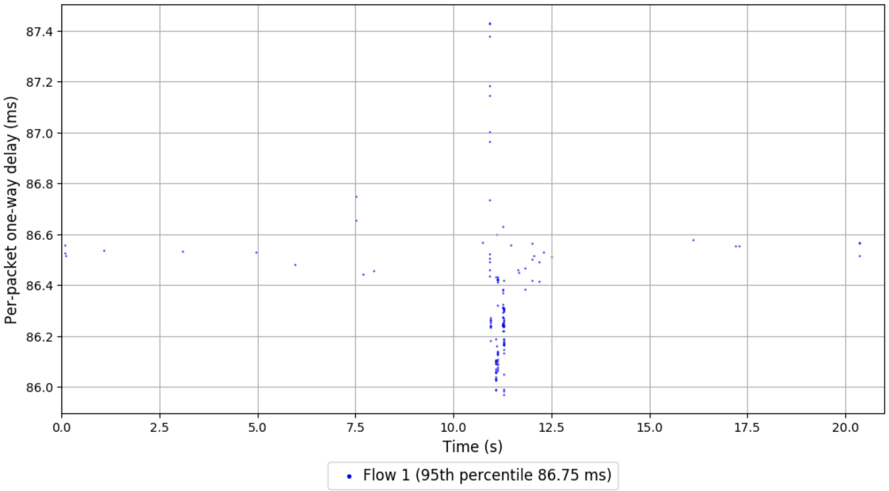




```
Run 1: Statistics of WebRTC media

Start at: 2018-08-01 12:34:09
End at: 2018-08-01 12:34:39
Local clock offset: 0.029 ms
Remote clock offset: -0.146 ms
```

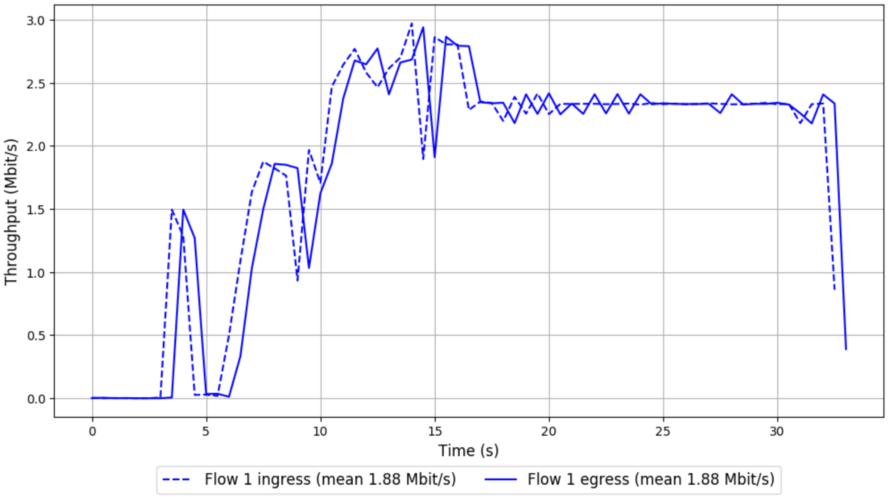
Run 1: Report of WebRTC media — Data Link

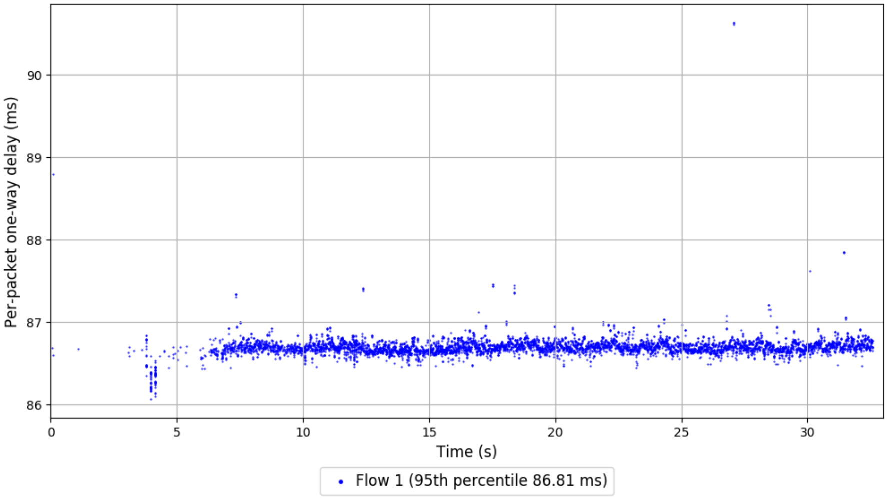




```
Run 2: Statistics of WebRTC media

Start at: 2018-08-01 12:56:28
End at: 2018-08-01 12:56:58
Local clock offset: 0.247 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 86.814 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 86.814 ms
Loss rate: 0.70%
```

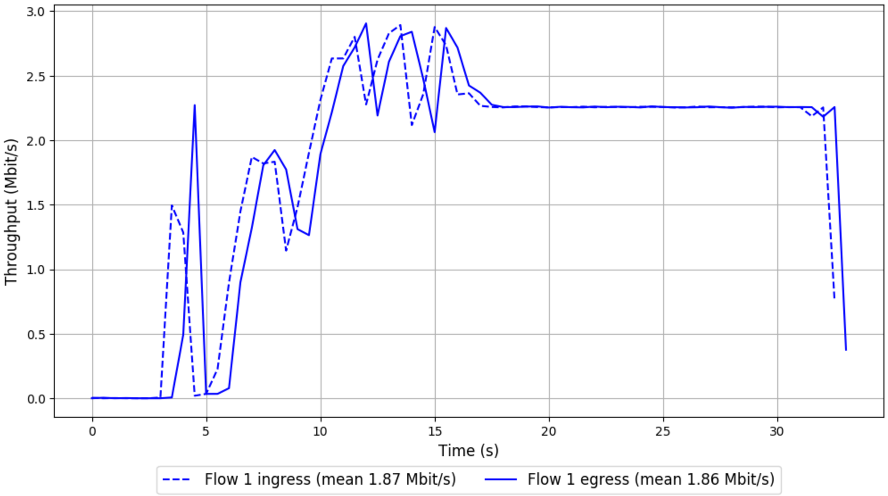
Run 2: Report of WebRTC media — Data Link

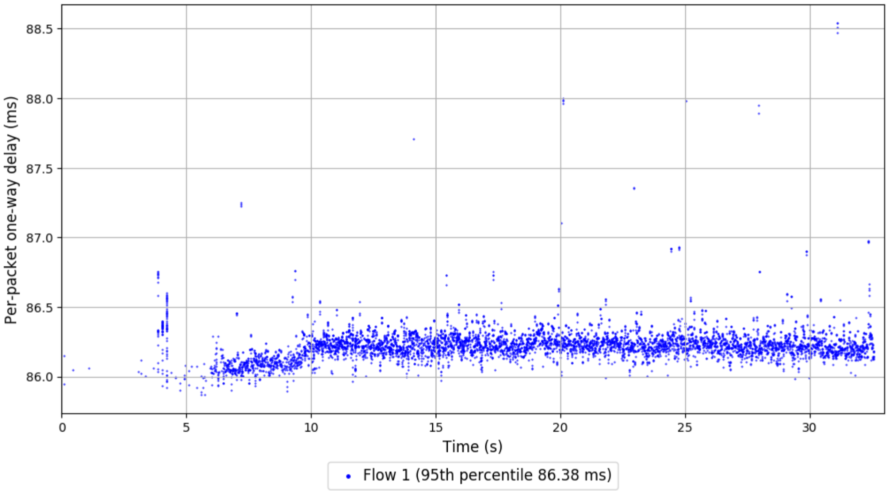




```
Run 3: Statistics of WebRTC media

Start at: 2018-08-01 13:18:26
End at: 2018-08-01 13:18:56
Local clock offset: 0.047 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.375 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.375 ms
Loss rate: 0.62%
```

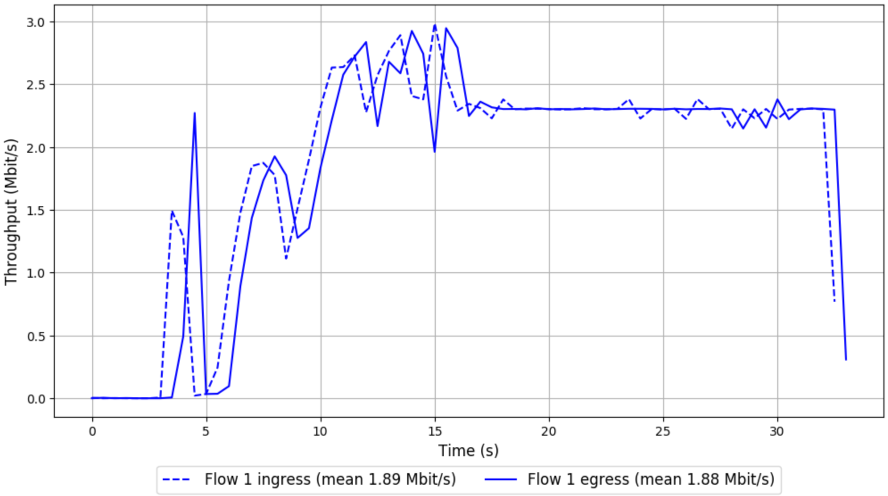
Run 3: Report of WebRTC media — Data Link

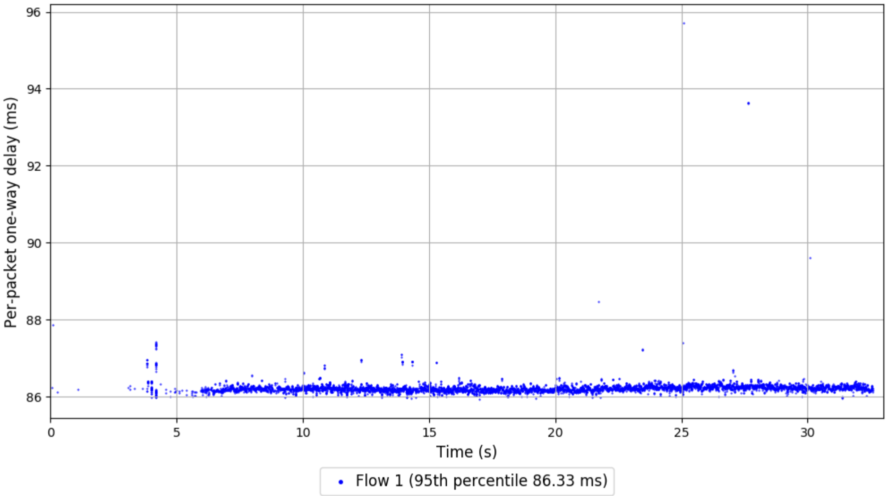




```
Run 4: Statistics of WebRTC media

Start at: 2018-08-01 13:40:43
End at: 2018-08-01 13:41:13
Local clock offset: 0.073 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 86.333 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 86.333 ms
Loss rate: 0.69%
```

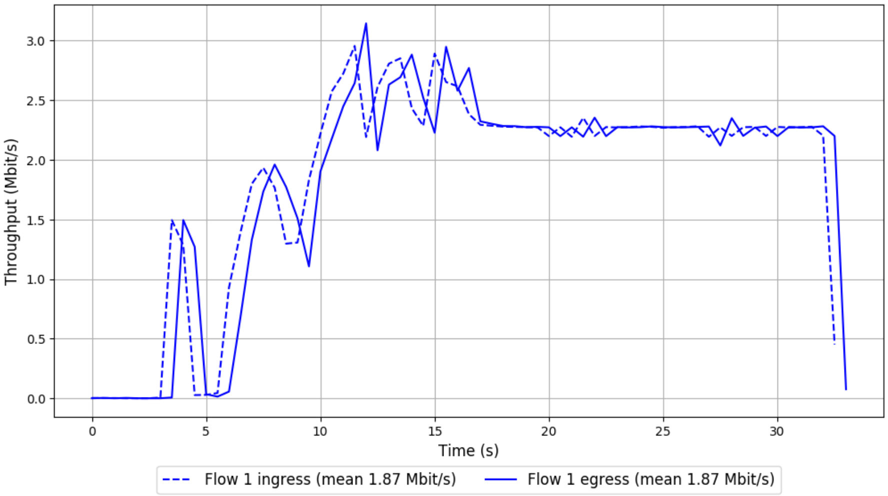
Run 4: Report of WebRTC media — Data Link

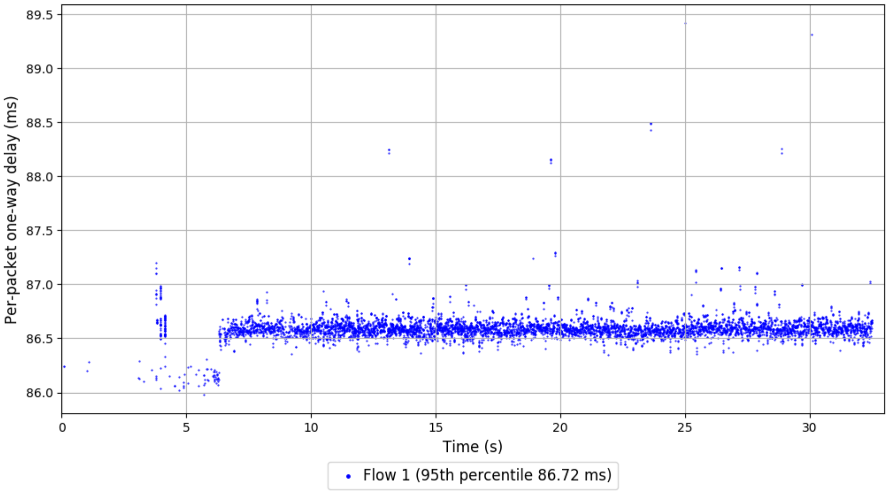




```
Run 5: Statistics of WebRTC media

Start at: 2018-08-01 14:03:09
End at: 2018-08-01 14:03:39
Local clock offset: 0.166 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 86.716 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 86.716 ms
Loss rate: 0.62%
```

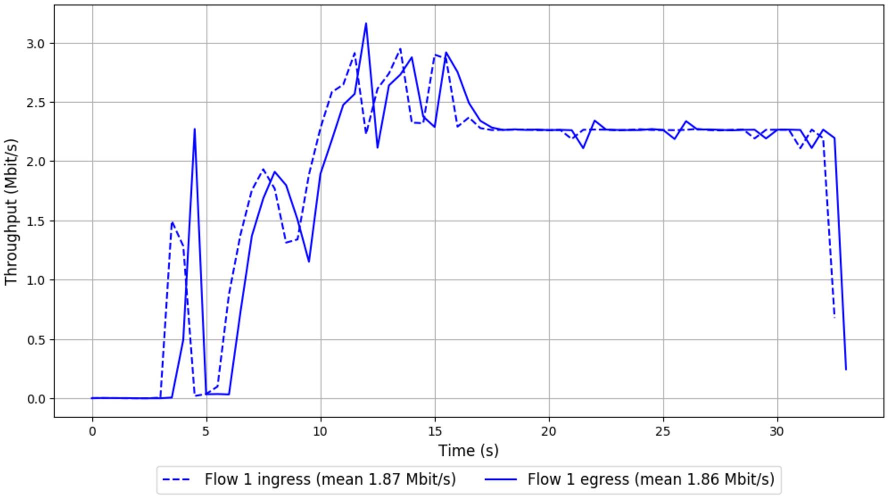
Run 5: Report of WebRTC media — Data Link

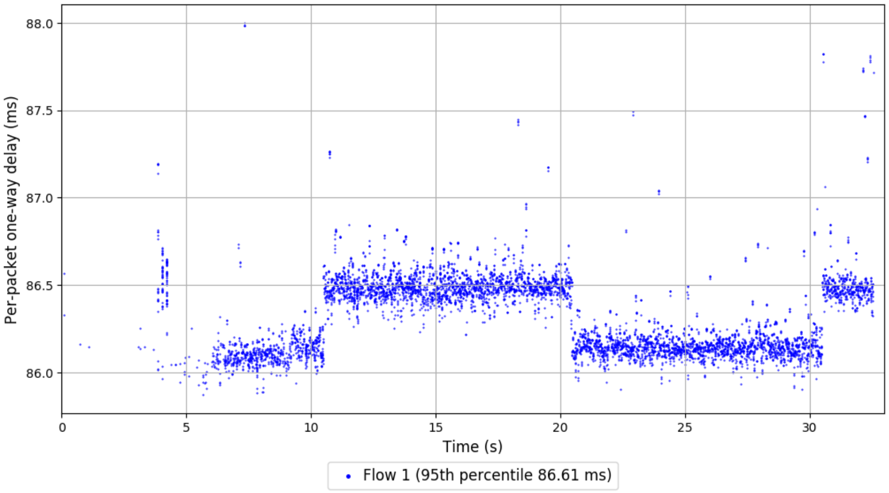




```
Run 6: Statistics of WebRTC media

Start at: 2018-08-01 14:25:21
End at: 2018-08-01 14:25:51
Local clock offset: -0.026 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.609 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.609 ms
Loss rate: 0.66%
```

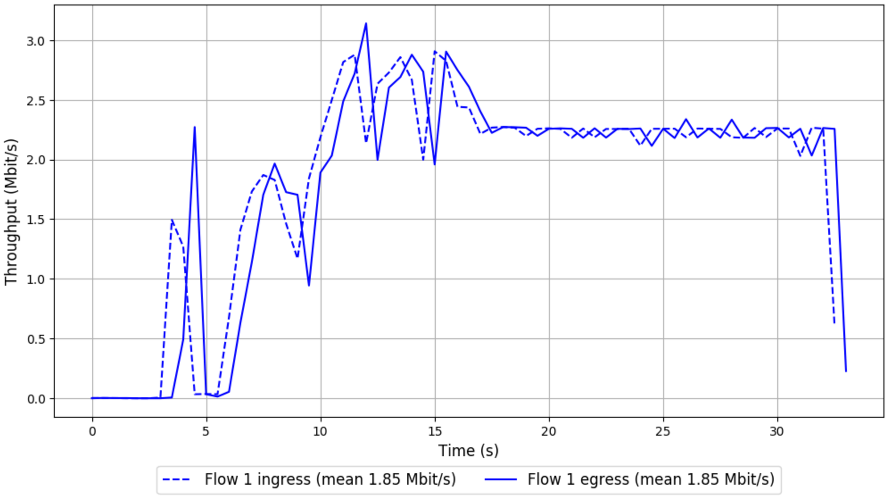
Run 6: Report of WebRTC media — Data Link

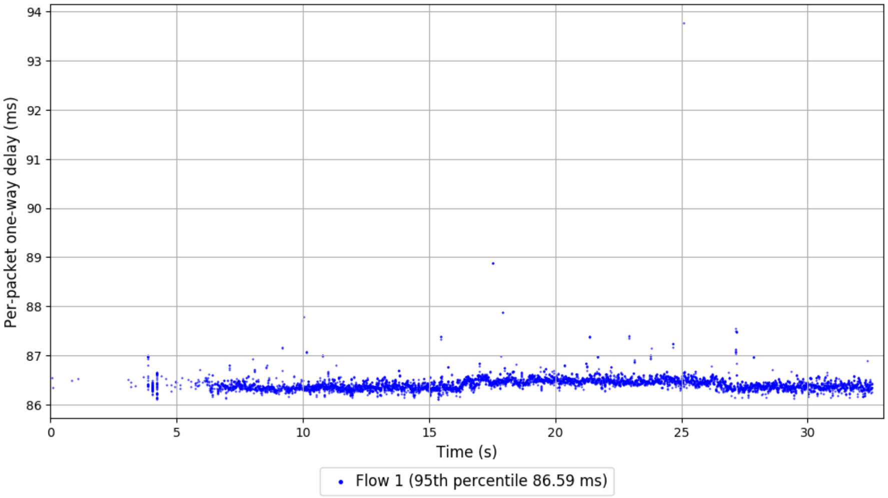




```
Run 7: Statistics of WebRTC media

Start at: 2018-08-01 14:47:35
End at: 2018-08-01 14:48:05
Local clock offset: 0.226 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 86.589 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 86.589 ms
Loss rate: 0.63%
```

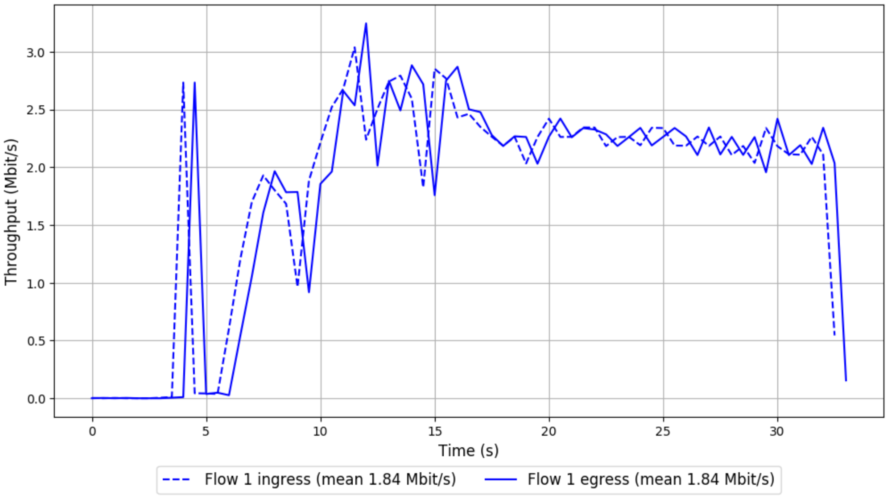
Run 7: Report of WebRTC media — Data Link

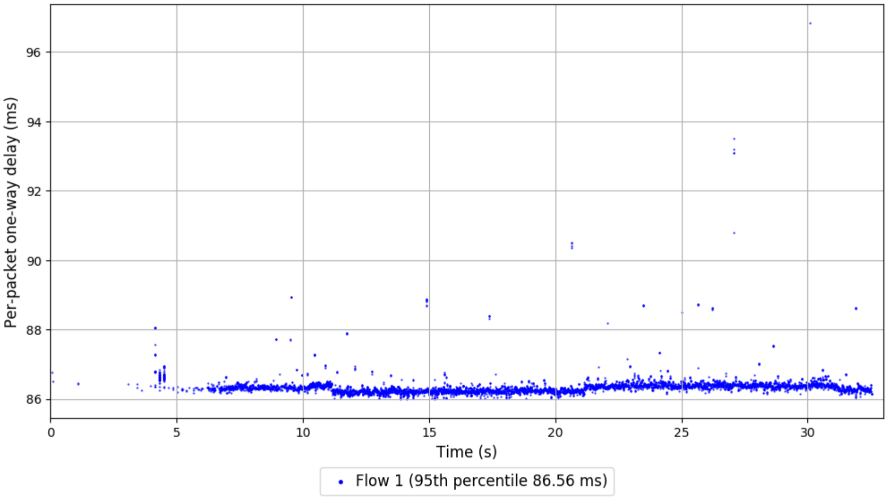




```
Run 8: Statistics of WebRTC media

Start at: 2018-08-01 15:09:44
End at: 2018-08-01 15:10:14
Local clock offset: 0.235 ms
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 86.556 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 86.556 ms
Loss rate: 0.65%
```

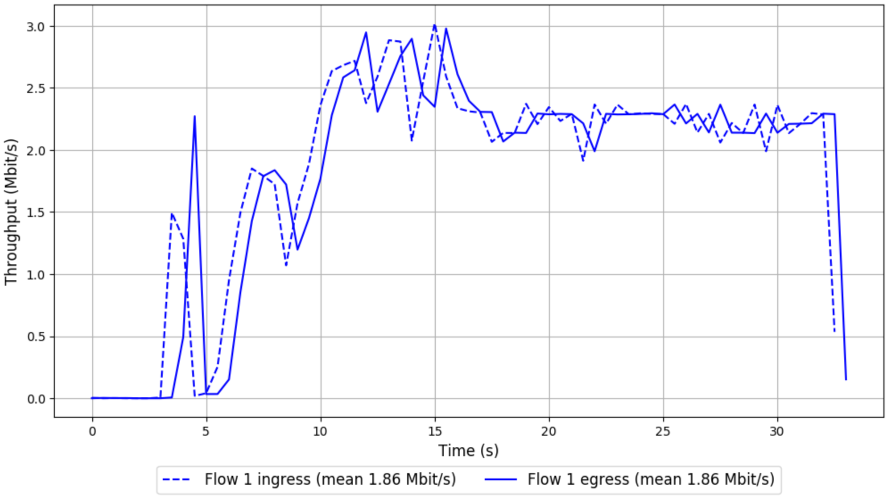
Run 8: Report of WebRTC media — Data Link

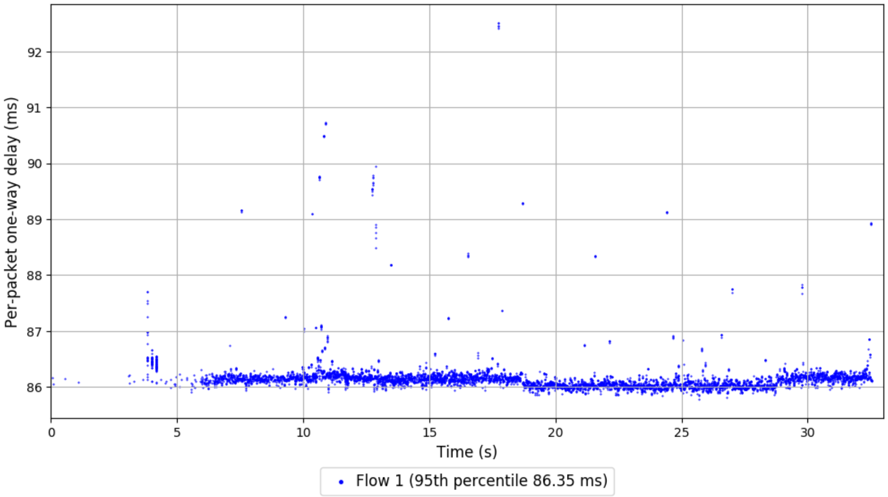




```
Run 9: Statistics of WebRTC media

Start at: 2018-08-01 15:31:37
End at: 2018-08-01 15:32:07
Local clock offset: -0.013 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.348 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.348 ms
Loss rate: 0.63%
```

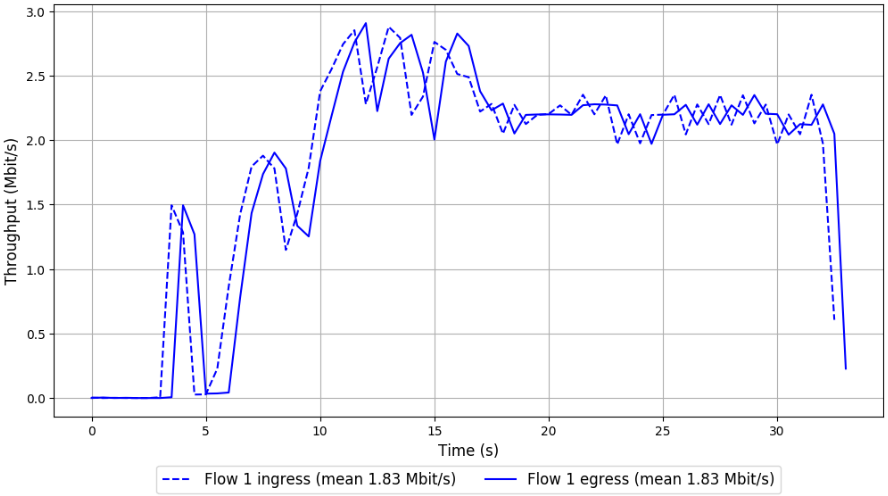
Run 9: Report of WebRTC media — Data Link



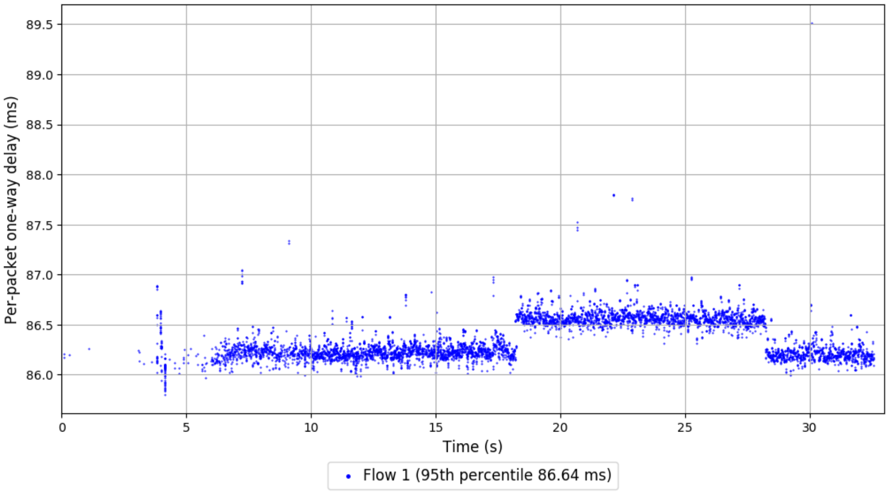


```
Run 10: Statistics of WebRTC media

Start at: 2018-08-01 15:53:57
End at: 2018-08-01 15:54:27
Local clock offset: -0.096 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-08-01 17:41:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.57%
```

Run 10: Report of WebRTC media — Data Link



Throughput (Mbit/s)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 1.83 Mbit/s)
Flow 1 egress (mean 1.83 Mbit/s)



Per-packet one-way delay (ms)
89.5
89.0
88.5
88.0
87.5
87.0
86.5
86.0
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 86.64 ms)