Pantheon Report

Generated at 2020-04-16 08:58:34 (UTC).

Tested in mahimahi: `mm-delay 50 mm-link 60mbps.trace 60mbps.trace --uplink-queue=droptail --uplink-queue-args=packets=1 --downlink-queue=droptail --downlink-queue-args=packets=1`

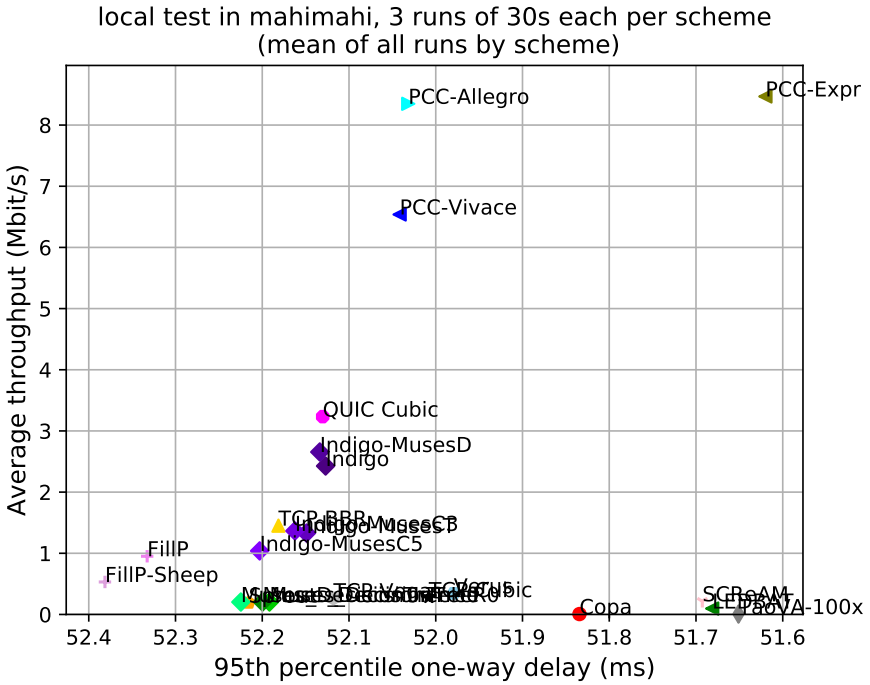
Repeated the test of 24 congestion control schemes 3 times.

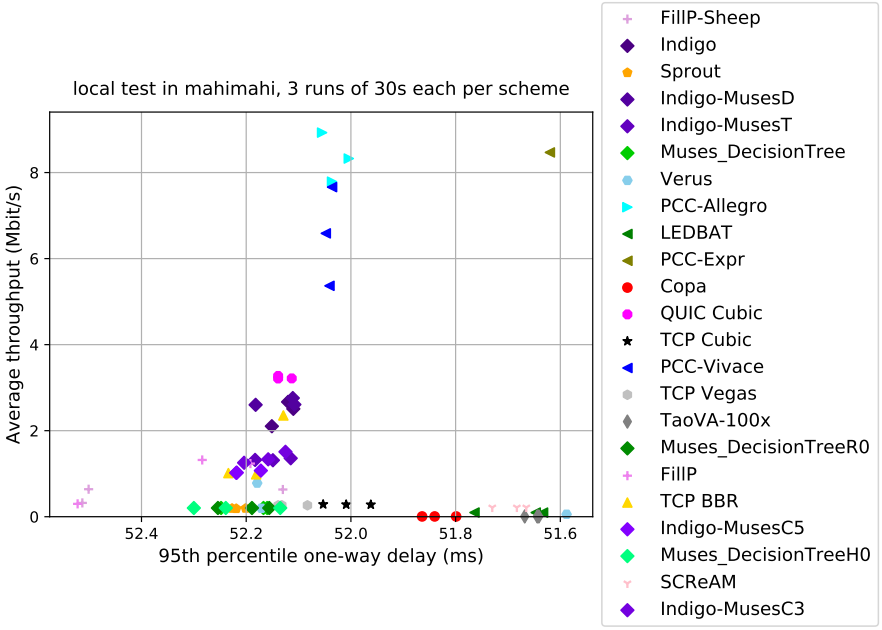
Each test lasted for 30 seconds running 1 flow.

```
System info:
Linux 5.0.0-1031-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

```
Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```

```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```


local test in mahimahi, 3 runs of 30s each per scheme
(mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
PCC-Allegro
PCC-Expr
PCC-Vivace
QUIC Cubic
Indigo-MusesD
Indigo
FillP
FillP-Sheep
Indigo-MusesC5
Copa
SCReAM
TaoVA-100x


local test in mahimahi, 3 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
FillP-Sheep
Indigo
Sprout
Indigo-MusesD
Indigo-MusesT
Muses_DecisionTree
Verus
PCC-Allegro
LEDBAT
PCC-Expr
Copa
QUIC Cubic
TCP Cubic
PCC-Vivace
TCP Vegas
TaoVA-100x
Muses_DecisionTreeR0
FillP
TCP BBR
Indigo-MusesC5
Muses_DecisionTreeH0
SCReAM
Indigo-MusesC3

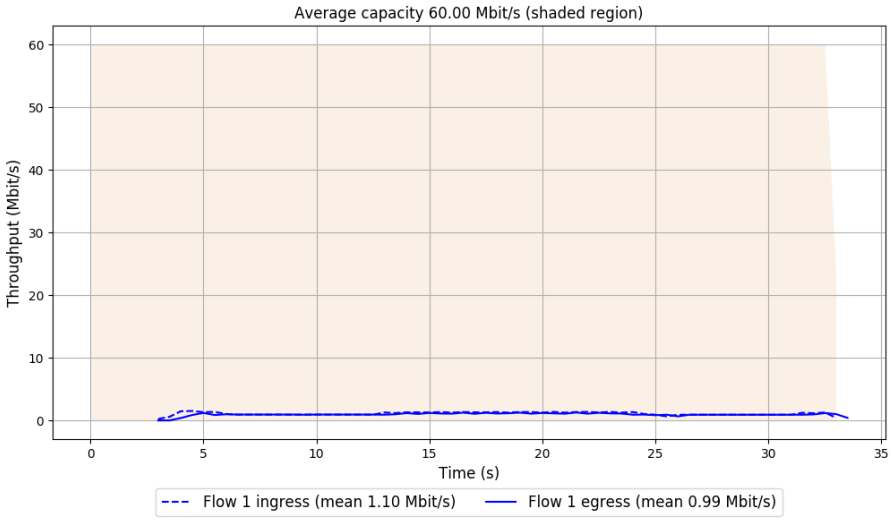
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	1.45	52.18	17.87
Copa	3	0.01	51.83	90.36
TCP Cubic	3	0.28	52.01	13.04
FillP	3	0.95	52.33	50.35
FillP-Sheep	3	0.53	52.38	38.08
Indigo	3	2.43	52.13	96.95
Indigo-MusesC3	3	1.36	52.16	31.59
Indigo-MusesC5	3	1.04	52.20	43.71
Indigo-MusesD	3	2.66	52.13	44.63
Indigo-MusesT	3	1.33	52.15	26.07
LEDBAT	3	0.10	51.68	42.05
Muses_DecisionTree	3	0.20	52.19	1.72
Muses_DecisionTreeH0	3	0.20	52.22	1.78
Muses_DecisionTreeR0	3	0.20	52.20	1.85
PCC-Allegro	3	8.35	52.03	2.84
PCC-Expr	1	8.47	51.62	97.47
QUIC Cubic	3	3.23	52.13	1.41
SCReAM	3	0.22	51.69	0.22
Sprout	3	0.19	52.22	7.67
TaoVA-100x	3	0.01	51.65	51.91
TCP Vegas	3	0.26	52.12	13.79
Verus	3	0.35	51.98	78.58
PCC-Vivace	3	6.54	52.04	0.32
WebRTC media	0	N/A	N/A	N/A

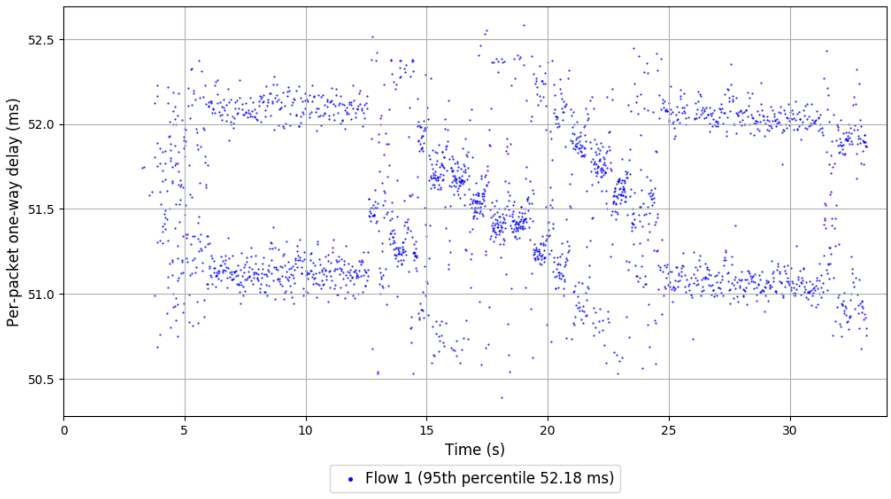
```
Run 1: Statistics of TCP BBR

Start at: 2020-04-16 08:22:37
End at: 2020-04-16 08:23:07

# Below is generated by plot.py at 2020-04-16 08:54:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.99 Mbit/s (1.6% utilization)
95th percentile per-packet one-way delay: 52.181 ms
Loss rate: 10.80%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 52.181 ms
Loss rate: 10.80%
```

Run 1: Report of TCP BBR — Data Link



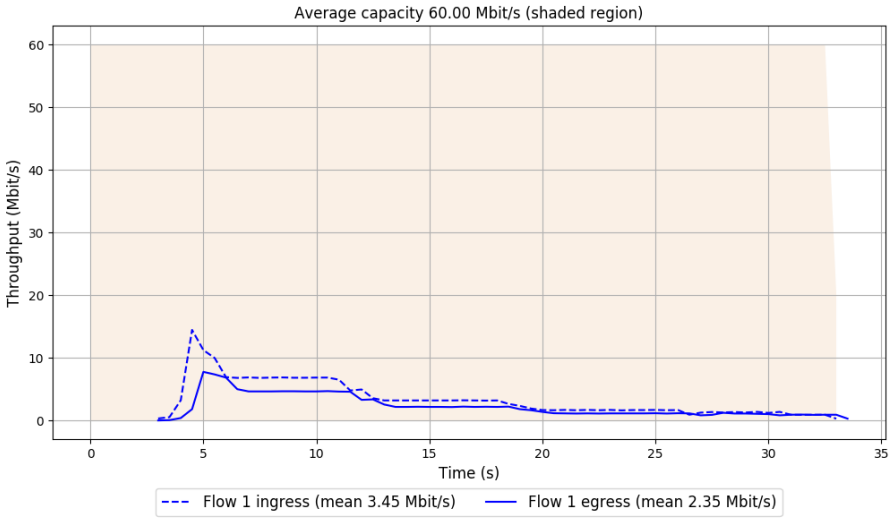


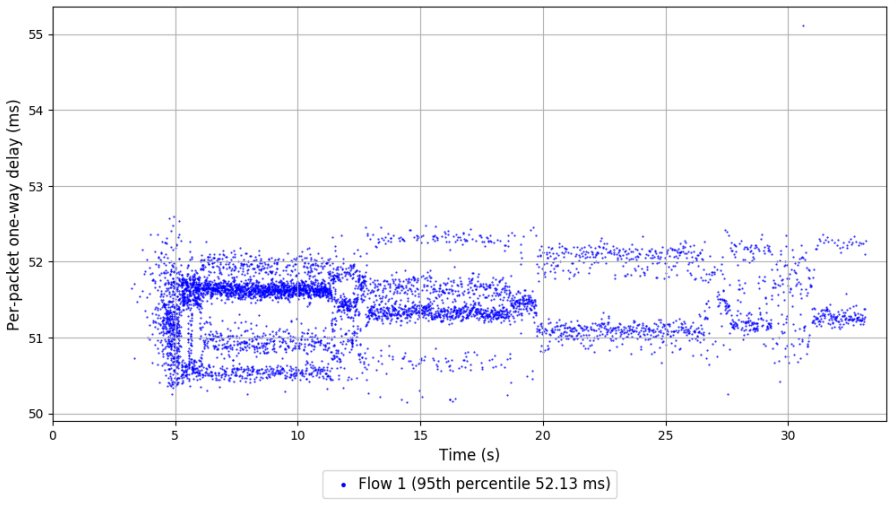
```
Run 2: Statistics of TCP BBR

Start at: 2020-04-16 08:36:58
End at: 2020-04-16 08:37:28

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.35 Mbit/s (3.9% utilization)
95th percentile per-packet one-way delay: 52.129 ms
Loss rate: 31.78%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 52.129 ms
Loss rate: 31.78%
```

Run 2: Report of TCP BBR — Data Link



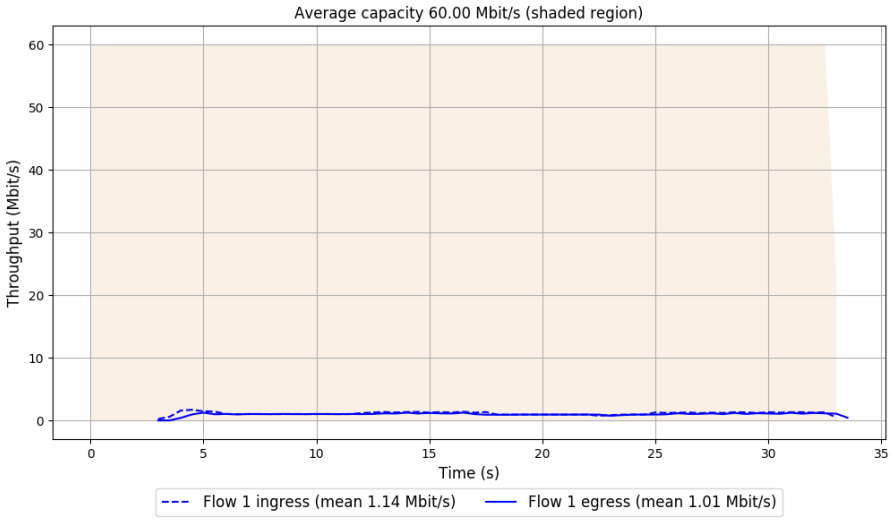


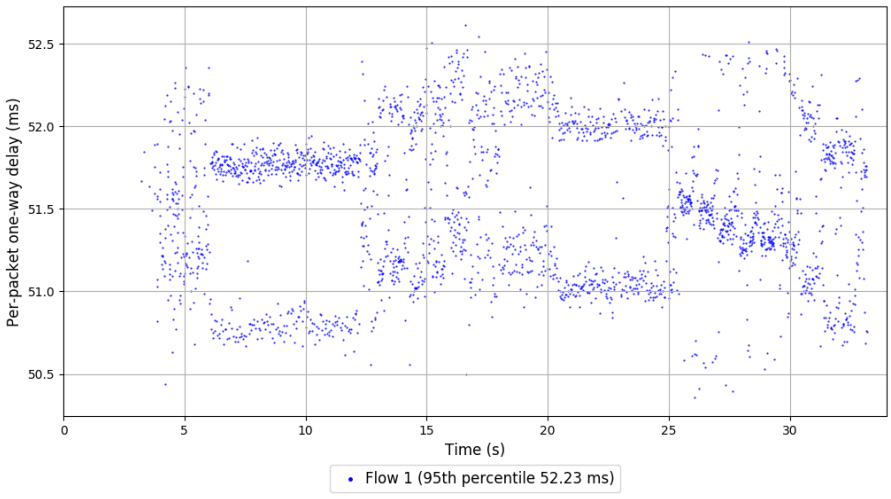
```
Run 3: Statistics of TCP BBR

Start at: 2020-04-16 08:51:20
End at: 2020-04-16 08:51:50

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.01 Mbit/s (1.7% utilization)
95th percentile per-packet one-way delay: 52.234 ms
Loss rate: 11.04%
-- Flow 1:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 52.234 ms
Loss rate: 11.04%
```

Run 3: Report of TCP BBR — Data Link



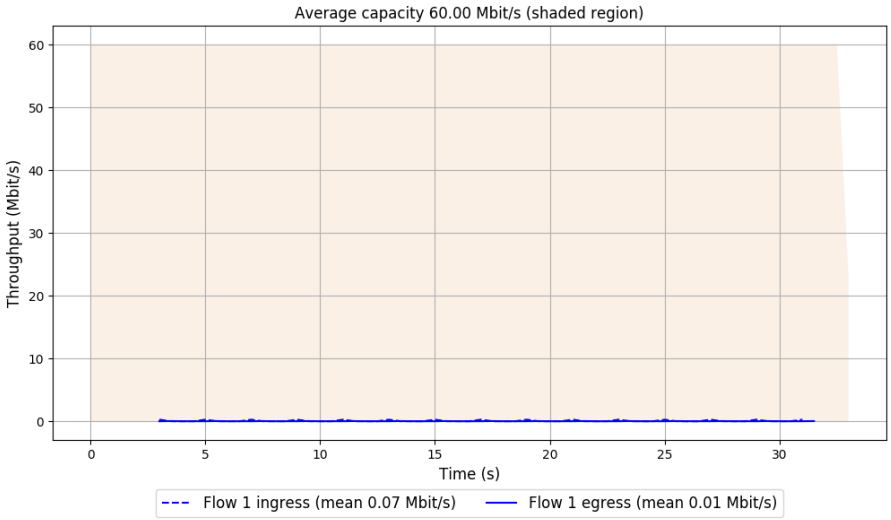


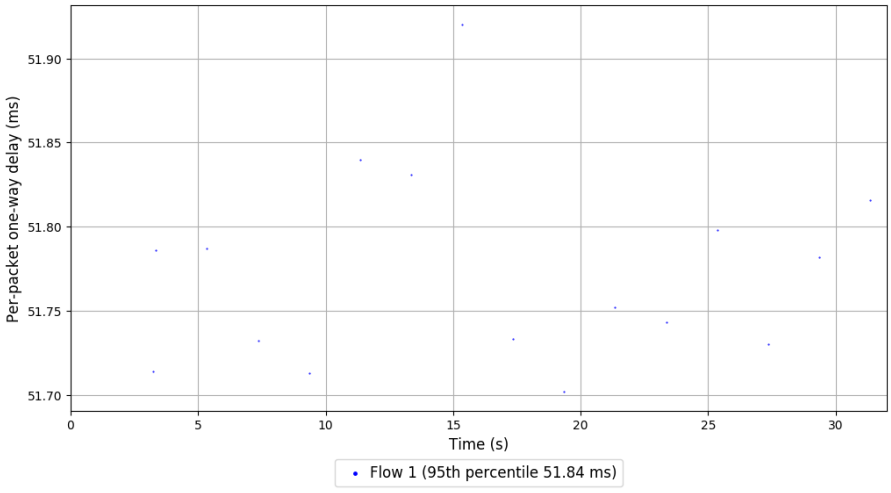
```
Run 1: Statistics of Copa

Start at: 2020-04-16 08:17:52
End at: 2020-04-16 08:18:22

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.840 ms
Loss rate: 90.36%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.840 ms
Loss rate: 90.36%
```

Run 1: Report of Copa — Data Link



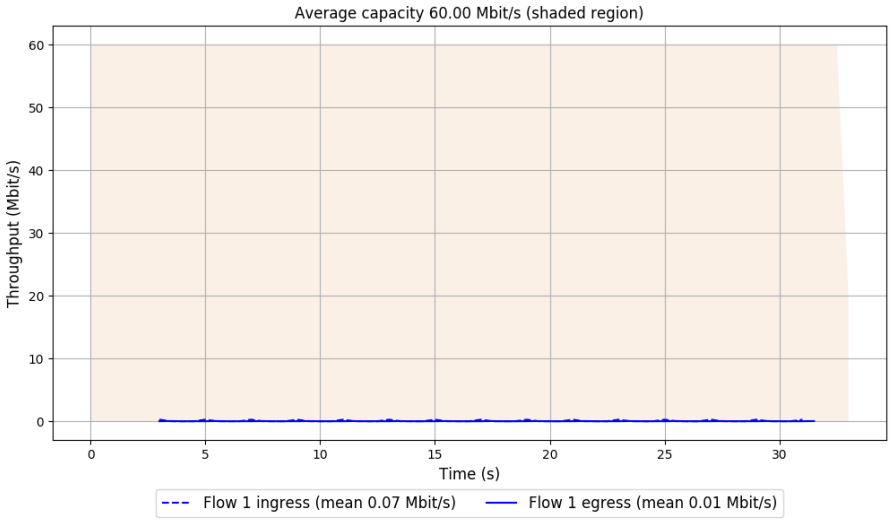


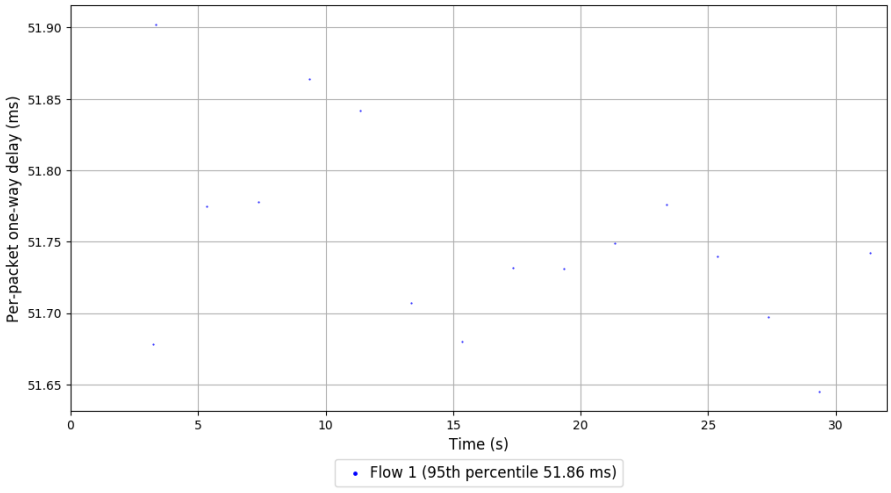
```
Run 2: Statistics of Copa

Start at: 2020-04-16 08:32:12
End at: 2020-04-16 08:32:42

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.864 ms
Loss rate: 90.36%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.864 ms
Loss rate: 90.36%
```

Run 2: Report of Copa — Data Link



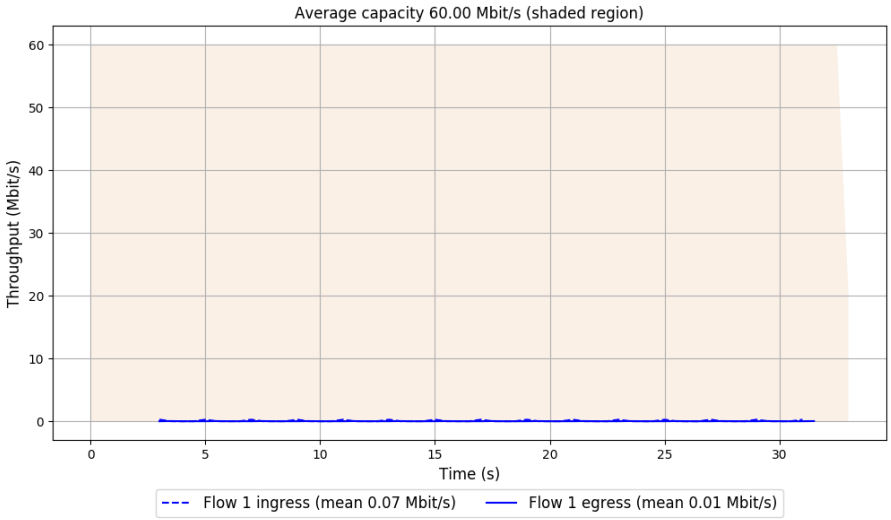


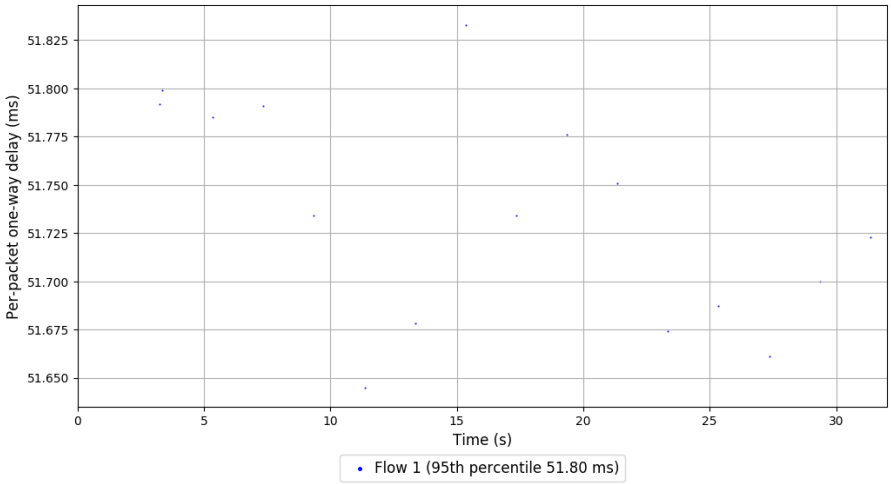
```
Run 3: Statistics of Copa

Start at: 2020-04-16 08:46:34
End at: 2020-04-16 08:47:04

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.799 ms
Loss rate: 90.36%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.799 ms
Loss rate: 90.36%
```

Run 3: Report of Copa — Data Link



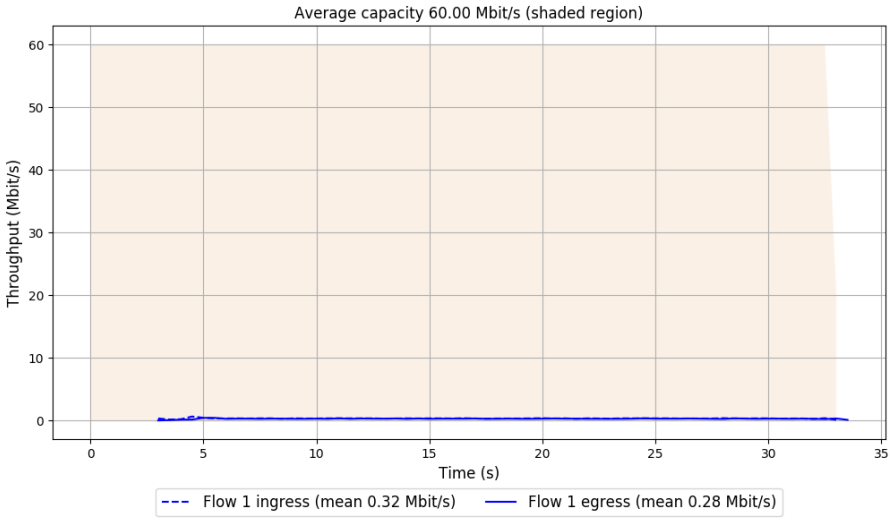


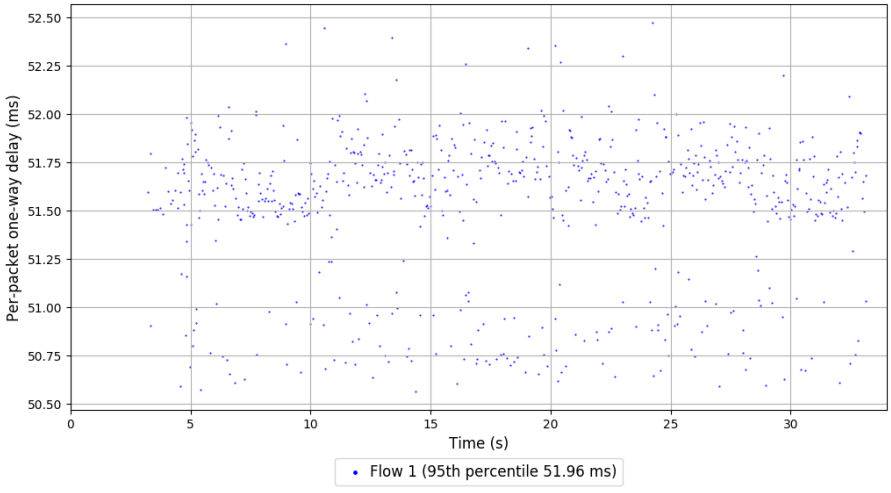
```
Run 1: Statistics of TCP Cubic

Start at: 2020-04-16 08:11:18
End at: 2020-04-16 08:11:48

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.28 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 51.962 ms
Loss rate: 13.59%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 51.962 ms
Loss rate: 13.59%
```

Run 1: Report of TCP Cubic — Data Link



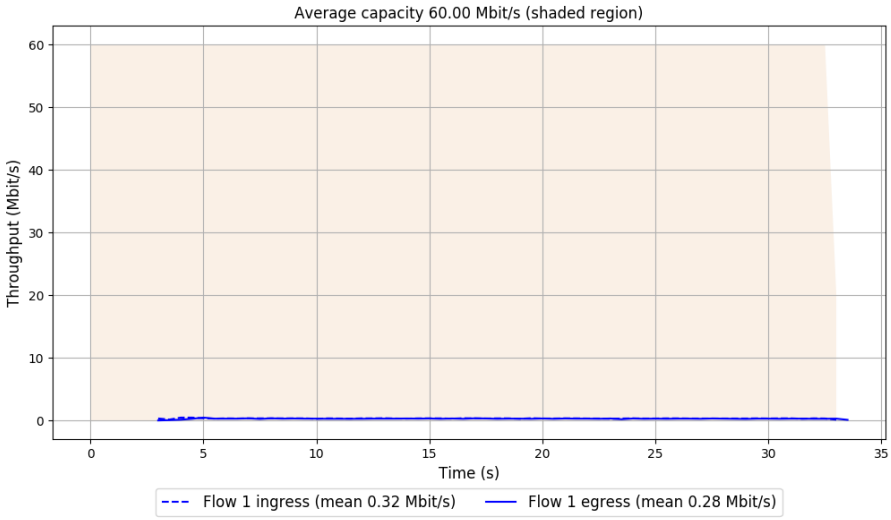


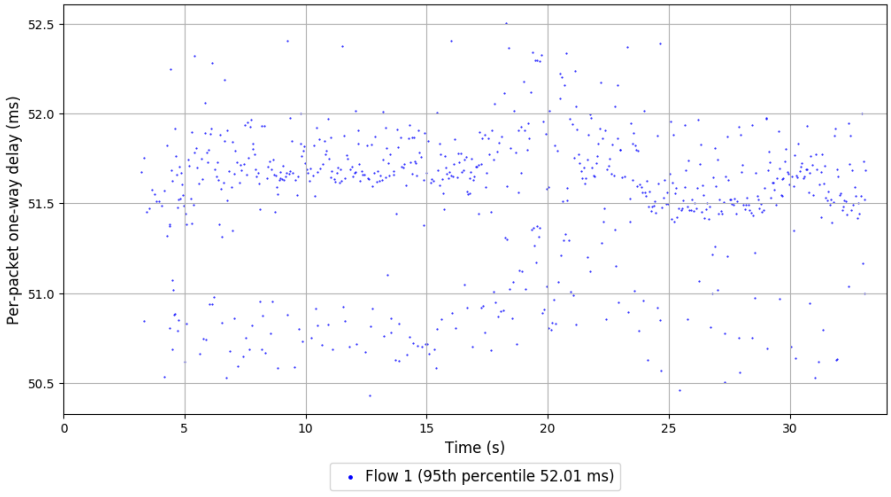
```
Run 2: Statistics of TCP Cubic

Start at: 2020-04-16 08:25:40
End at: 2020-04-16 08:26:10

# Below is generated by plot.py at 2020-04-16 08:54:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.28 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 52.009 ms
Loss rate: 13.08%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 52.009 ms
Loss rate: 13.08%
```

Run 2: Report of TCP Cubic — Data Link



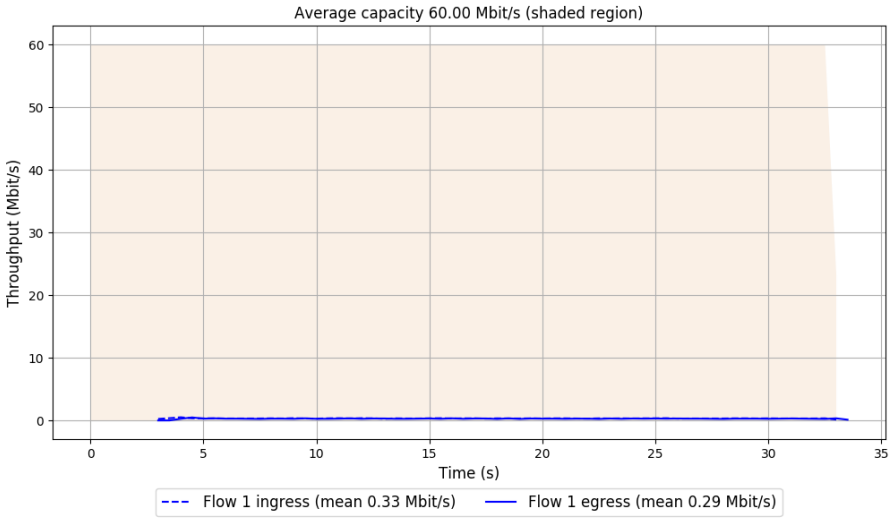


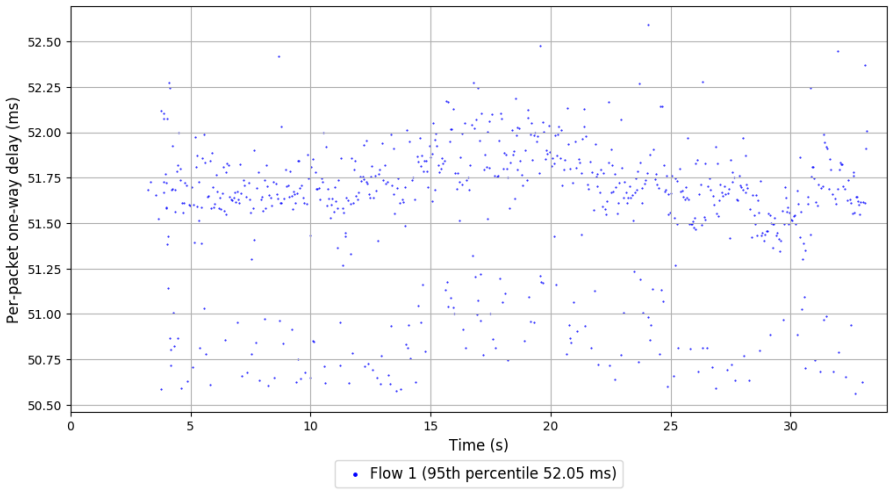
```
Run 3: Statistics of TCP Cubic

Start at: 2020-04-16 08:40:01
End at: 2020-04-16 08:40:31

# Below is generated by plot.py at 2020-04-16 08:54:46
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.29 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 52.053 ms
Loss rate: 12.45%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 52.053 ms
Loss rate: 12.45%
```

Run 3: Report of TCP Cubic — Data Link



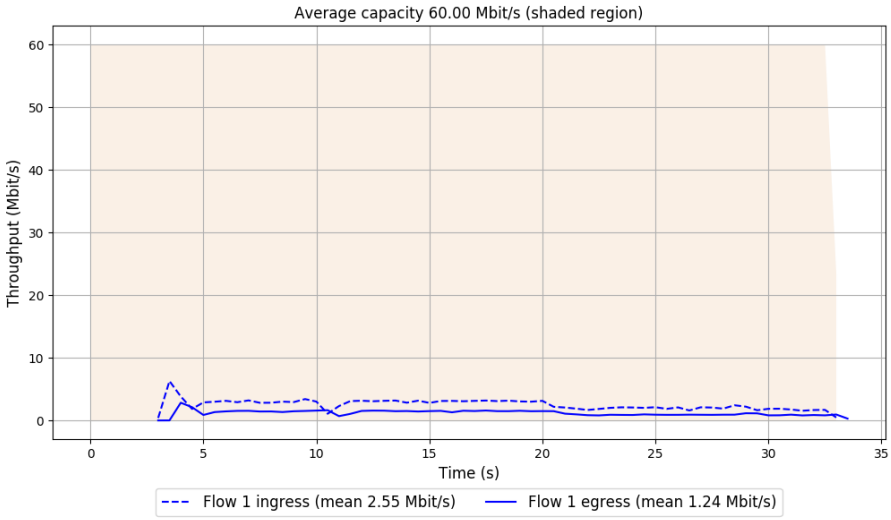


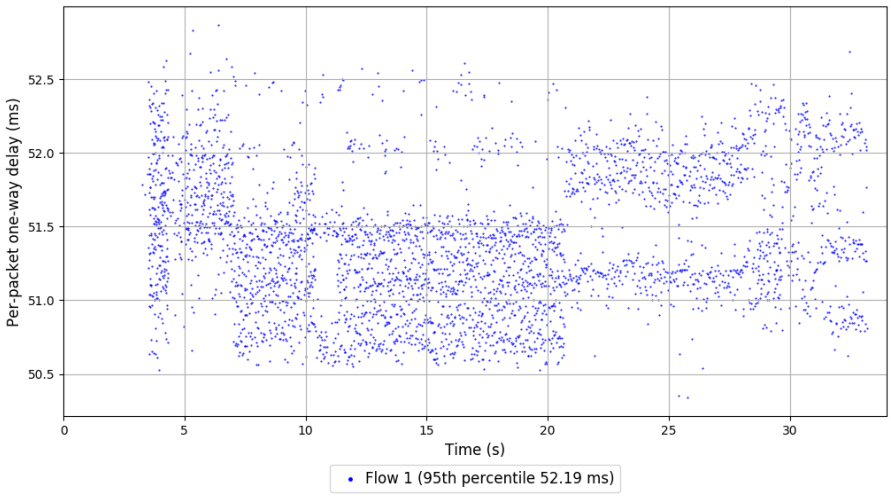
```
Run 1: Statistics of FillP

Start at: 2020-04-16 08:20:49
End at: 2020-04-16 08:21:19

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.24 Mbit/s (2.1% utilization)
95th percentile per-packet one-way delay: 52.192 ms
Loss rate: 51.61%
-- Flow 1:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 52.192 ms
Loss rate: 51.61%
```

Run 1: Report of FillP — Data Link



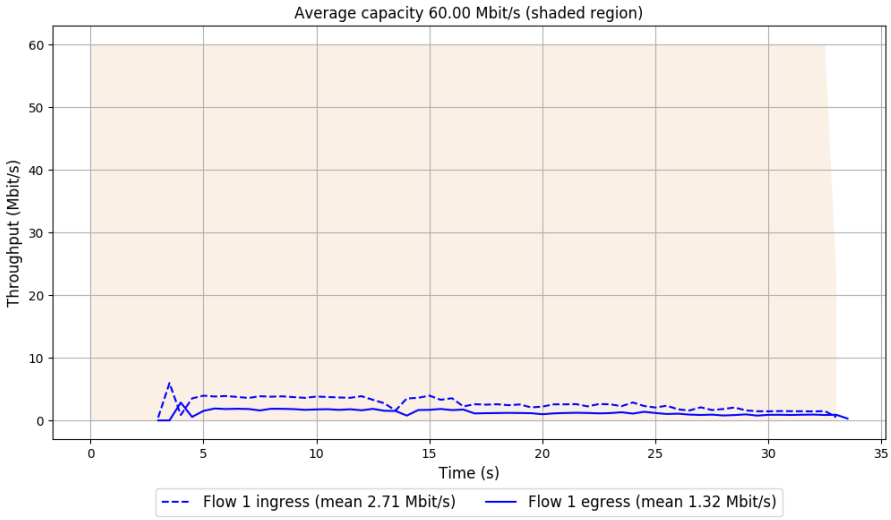


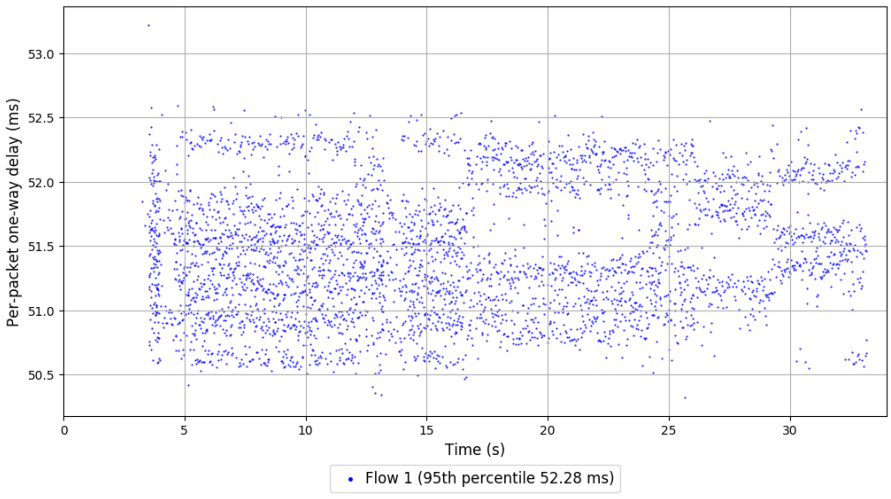
```
Run 2: Statistics of FillP

Start at: 2020-04-16 08:35:10
End at: 2020-04-16 08:35:40

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.32 Mbit/s (2.2% utilization)
95th percentile per-packet one-way delay: 52.284 ms
Loss rate: 51.46%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 52.284 ms
Loss rate: 51.46%
```

Run 2: Report of FillP — Data Link



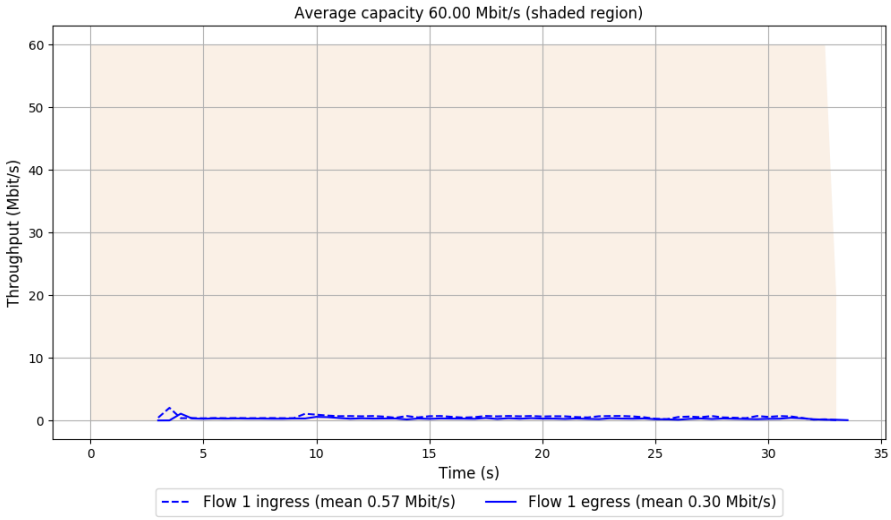


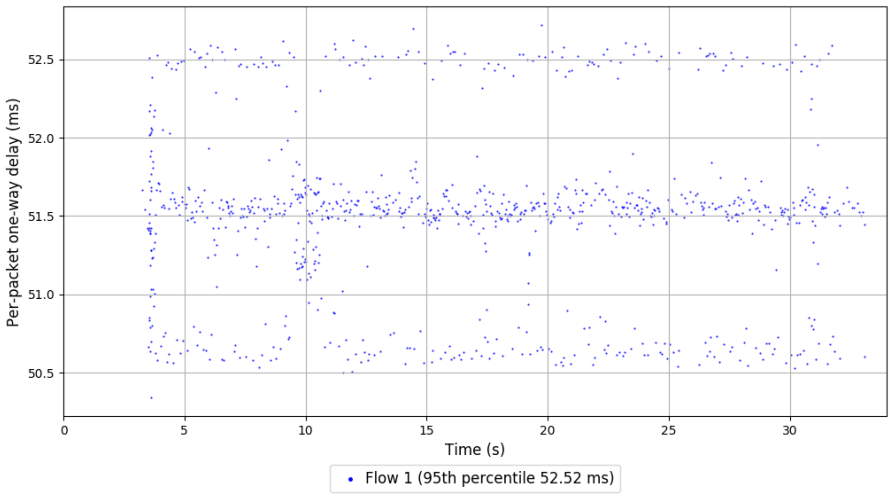
```
Run 3: Statistics of FillP

Start at: 2020-04-16 08:49:31
End at: 2020-04-16 08:50:01

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.30 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 52.522 ms
Loss rate: 47.99%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 52.522 ms
Loss rate: 47.99%
```

Run 3: Report of FillP — Data Link



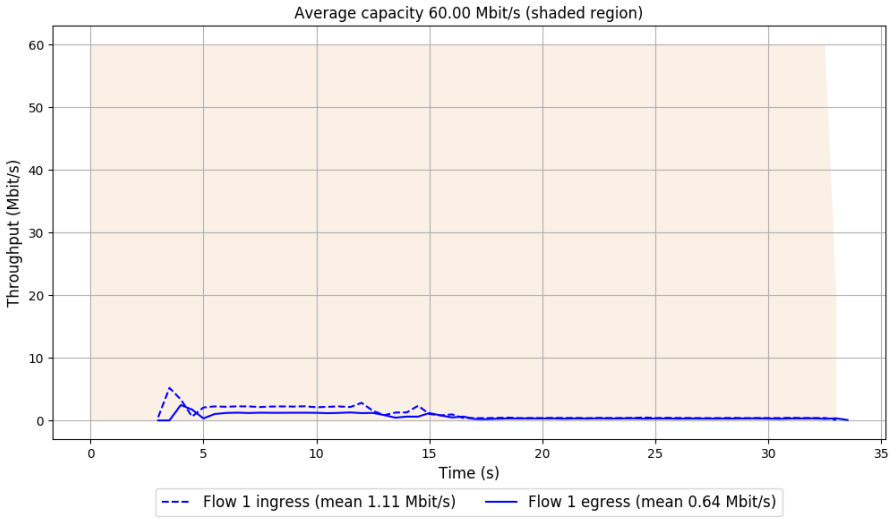


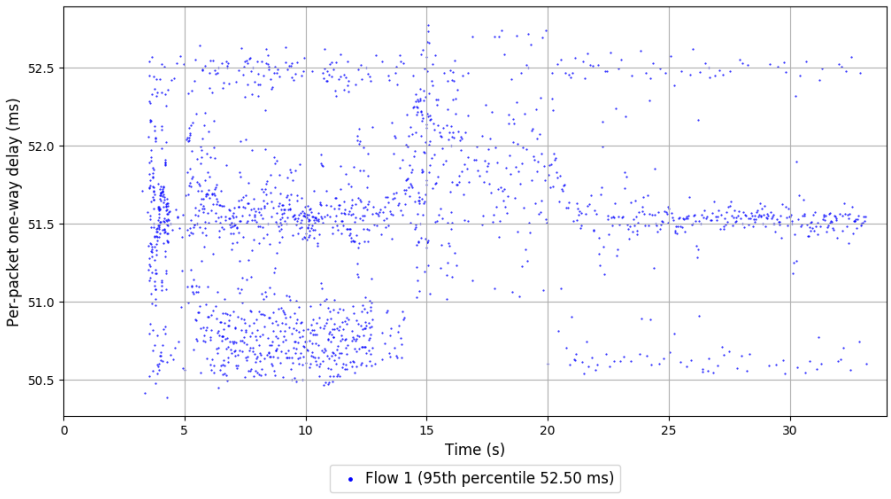
```
Run 1: Statistics of FillP-Sheep

Start at: 2020-04-16 08:15:28
End at: 2020-04-16 08:15:58

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.64 Mbit/s (1.1% utilization)
95th percentile per-packet one-way delay: 52.501 ms
Loss rate: 42.43%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 52.501 ms
Loss rate: 42.43%
```

Run 1: Report of FillP-Sheep — Data Link



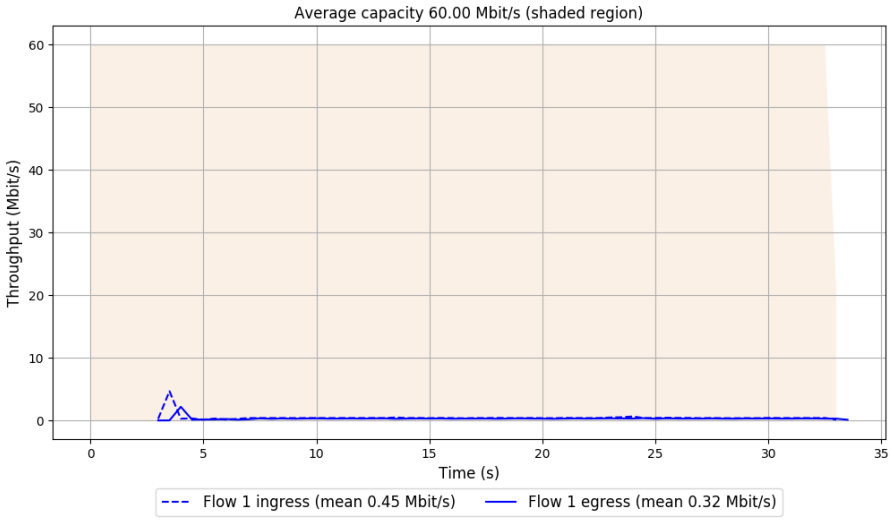


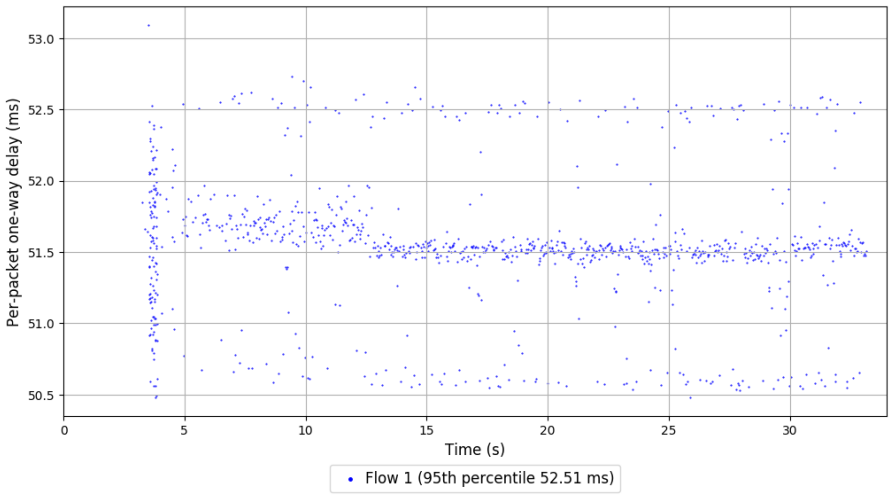
```
Run 2: Statistics of FillP-Sheep

Start at: 2020-04-16 08:29:49
End at: 2020-04-16 08:30:20

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.32 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 52.513 ms
Loss rate: 29.33%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 52.513 ms
Loss rate: 29.33%
```

Run 2: Report of FillP-Sheep — Data Link



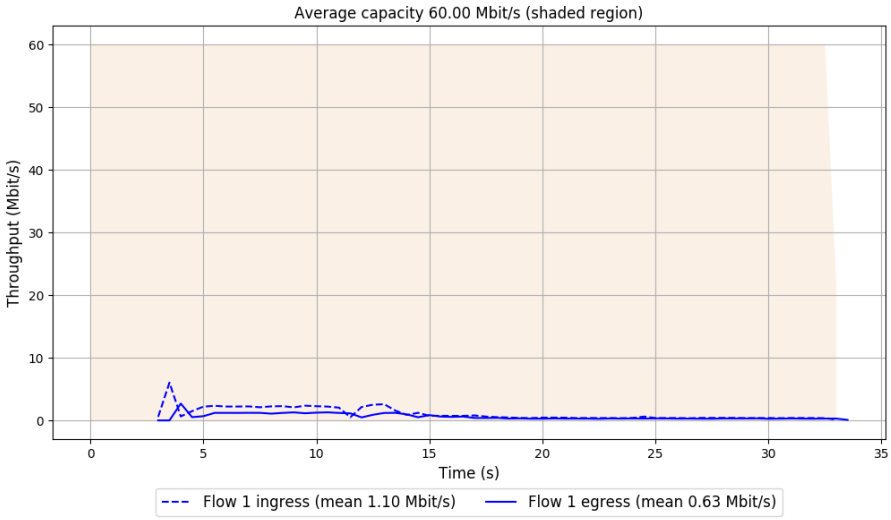


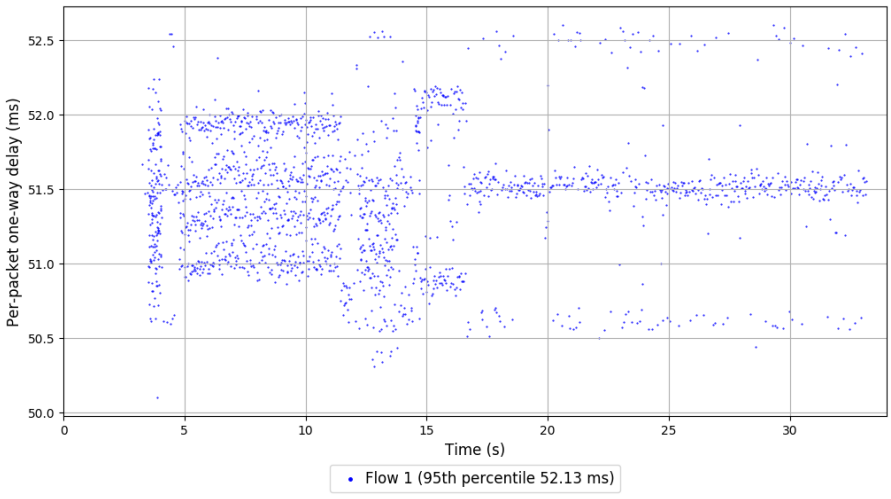
```
Run 3: Statistics of FillP-Sheep

Start at: 2020-04-16 08:44:11
End at: 2020-04-16 08:44:41

# Below is generated by plot.py at 2020-04-16 08:54:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.63 Mbit/s (1.1% utilization)
95th percentile per-packet one-way delay: 52.130 ms
Loss rate: 42.47%
-- Flow 1:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 52.130 ms
Loss rate: 42.47%
```

Run 3: Report of FillP-Sheep — Data Link



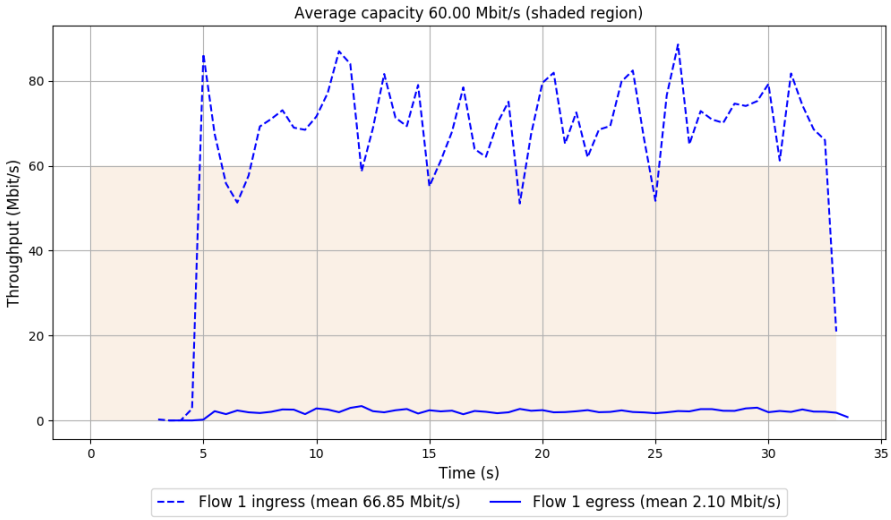


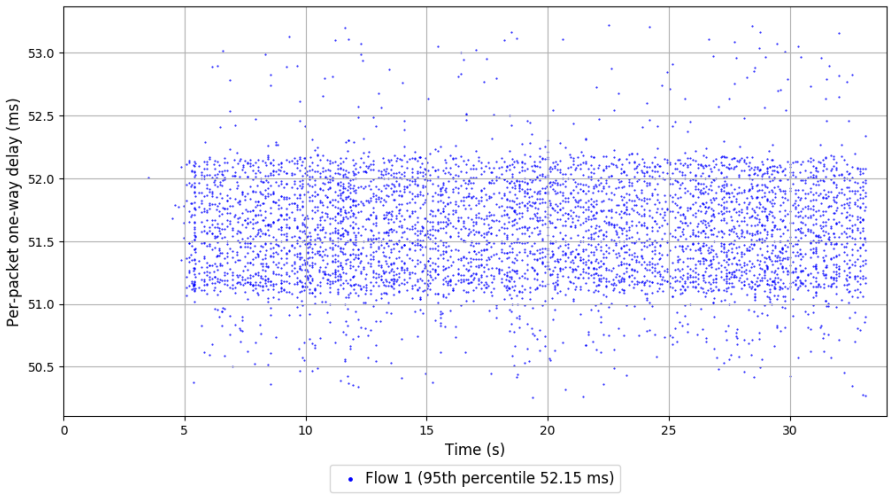
```
Run 1: Statistics of Indigo

Start at: 2020-04-16 08:22:01
End at: 2020-04-16 08:22:31

# Below is generated by plot.py at 2020-04-16 08:55:09
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.10 Mbit/s (3.5% utilization)
95th percentile per-packet one-way delay: 52.151 ms
Loss rate: 96.86%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 52.151 ms
Loss rate: 96.86%
```

Run 1: Report of Indigo — Data Link



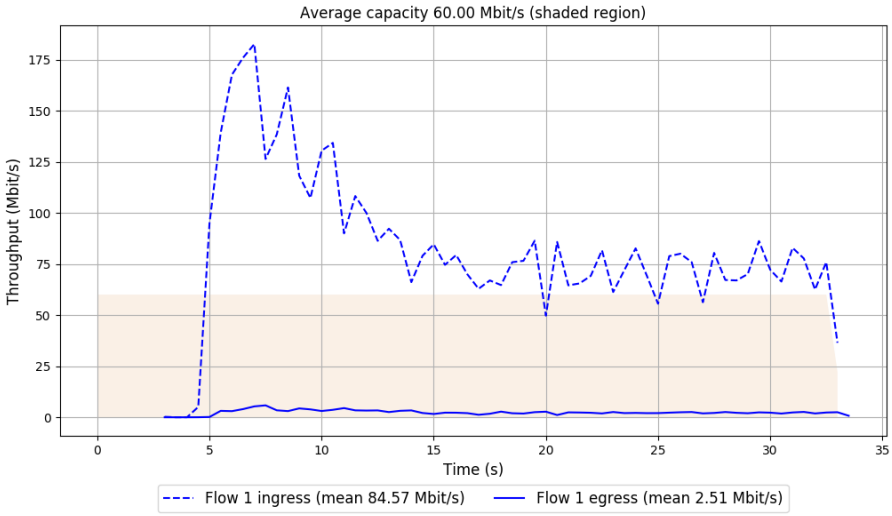


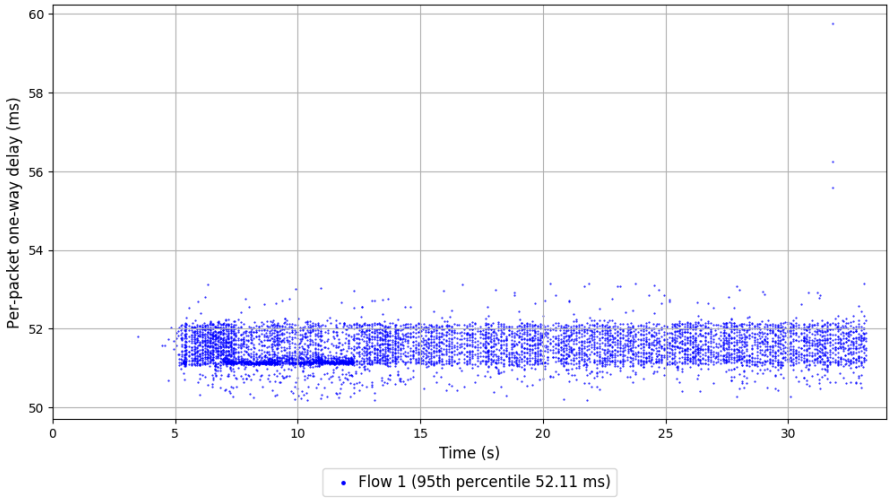
```
Run 2: Statistics of Indigo

Start at: 2020-04-16 08:36:21
End at: 2020-04-16 08:36:51

# Below is generated by plot.py at 2020-04-16 08:55:34
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.51 Mbit/s (4.2% utilization)
95th percentile per-packet one-way delay: 52.110 ms
Loss rate: 97.04%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 52.110 ms
Loss rate: 97.04%
```

Run 2: Report of Indigo — Data Link



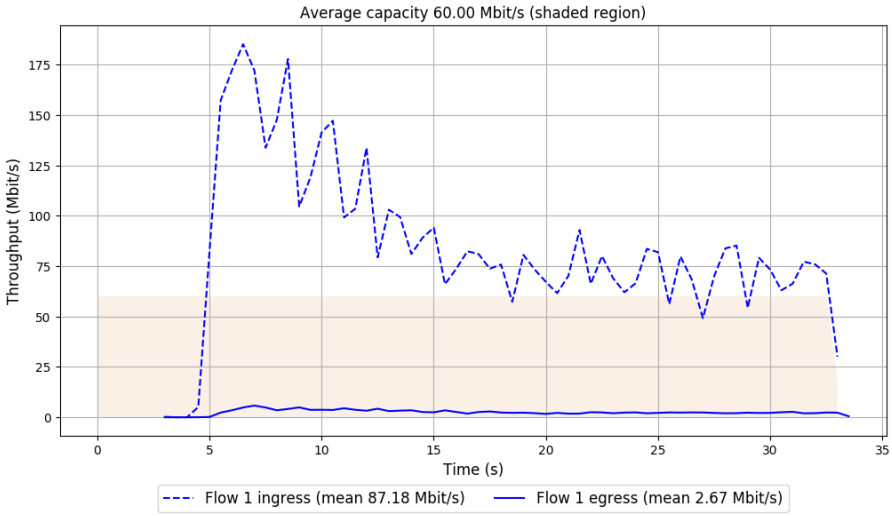


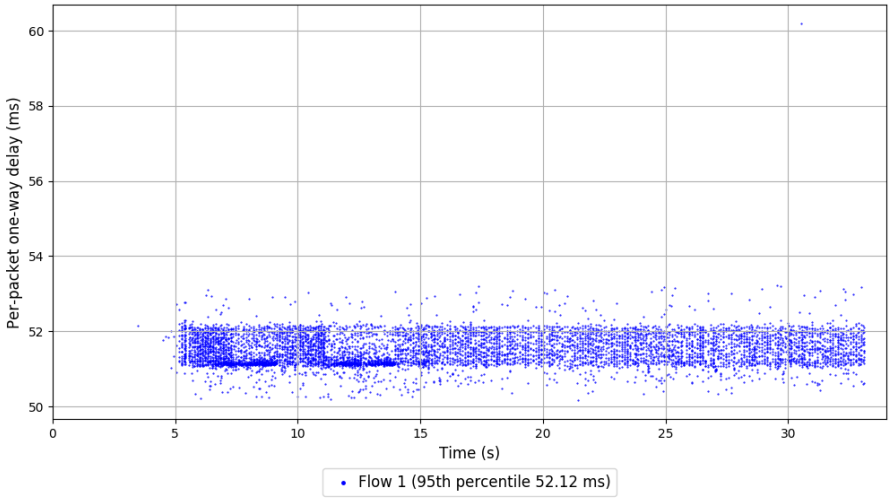
```
Run 3: Statistics of Indigo

Start at: 2020-04-16 08:50:43
End at: 2020-04-16 08:51:13

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.67 Mbit/s (4.4% utilization)
95th percentile per-packet one-way delay: 52.120 ms
Loss rate: 96.95%
-- Flow 1:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 52.120 ms
Loss rate: 96.95%
```

Run 3: Report of Indigo — Data Link



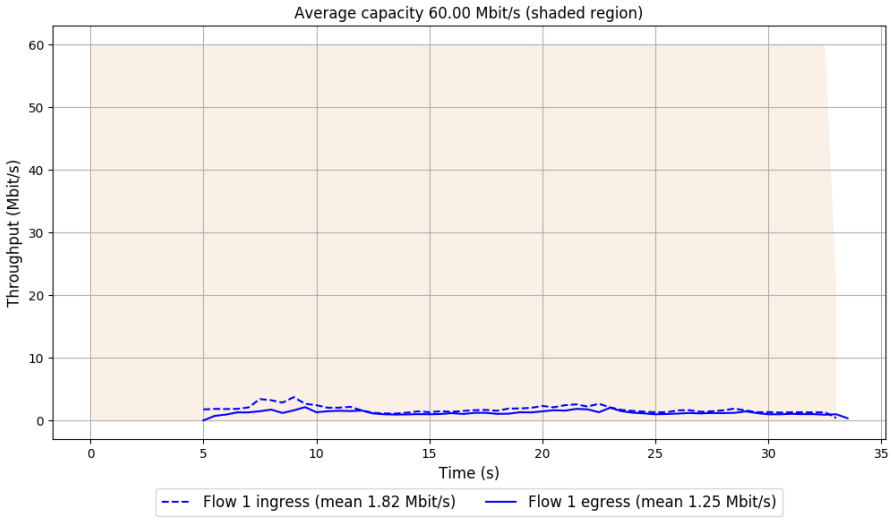


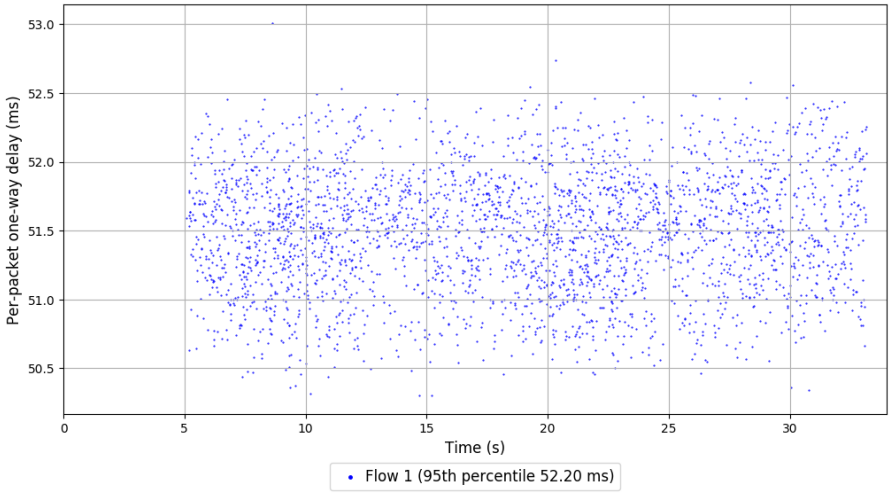
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:16:04
End at: 2020-04-16 08:16:34

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.25 Mbit/s (2.1% utilization)
95th percentile per-packet one-way delay: 52.204 ms
Loss rate: 31.12%
-- Flow 1:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 52.204 ms
Loss rate: 31.12%
```

Run 1: Report of Indigo-MusesC3 — Data Link



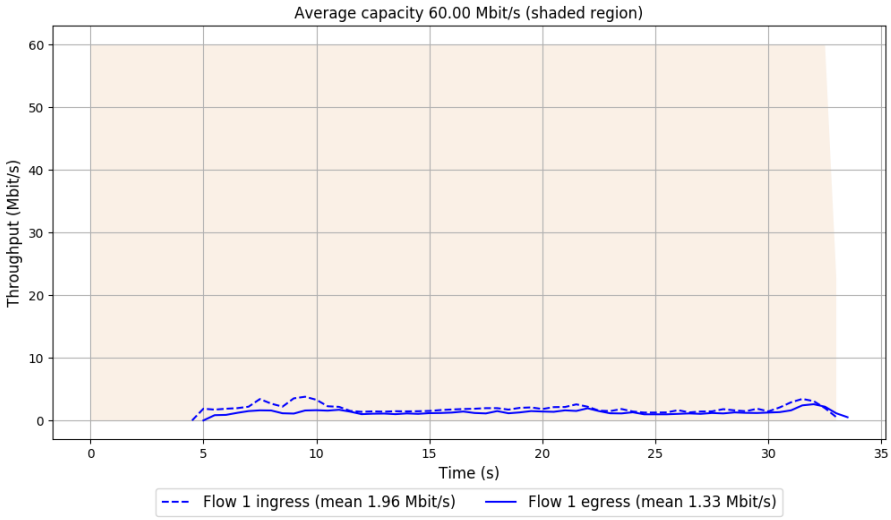


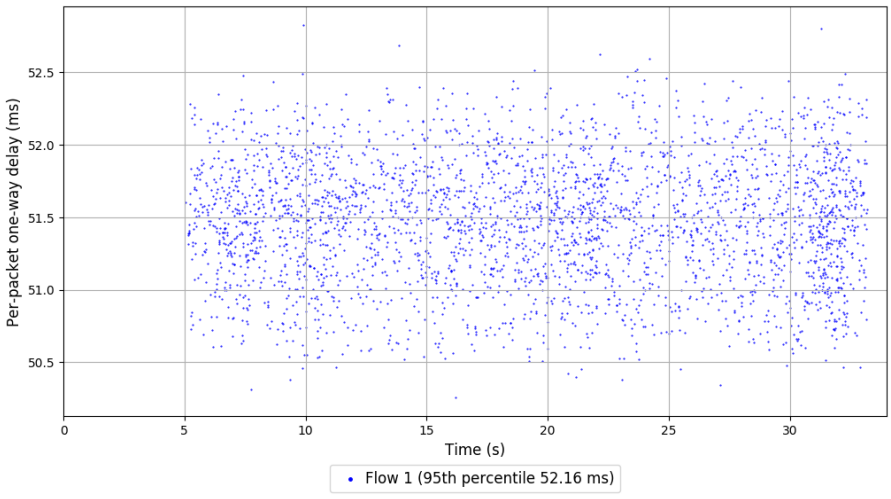
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:30:25
End at: 2020-04-16 08:30:55

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.33 Mbit/s (2.2% utilization)
95th percentile per-packet one-way delay: 52.158 ms
Loss rate: 32.01%
-- Flow 1:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 52.158 ms
Loss rate: 32.01%
```

Run 2: Report of Indigo-MusesC3 — Data Link



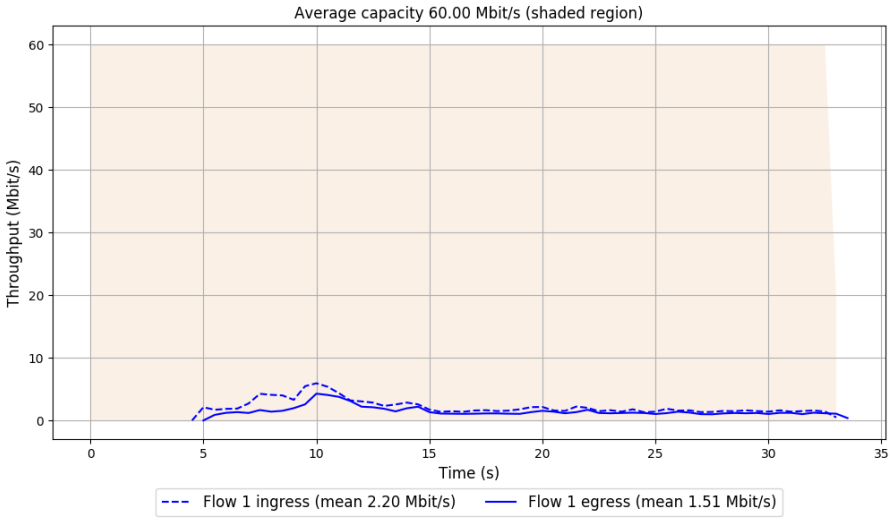


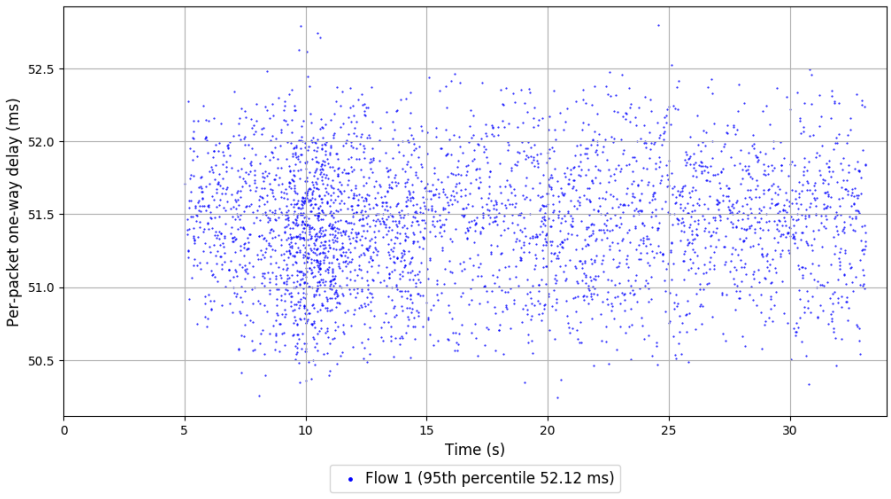
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:44:46
End at: 2020-04-16 08:45:16

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.51 Mbit/s (2.5% utilization)
95th percentile per-packet one-way delay: 52.125 ms
Loss rate: 31.65%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 52.125 ms
Loss rate: 31.65%
```

Run 3: Report of Indigo-MusesC3 — Data Link



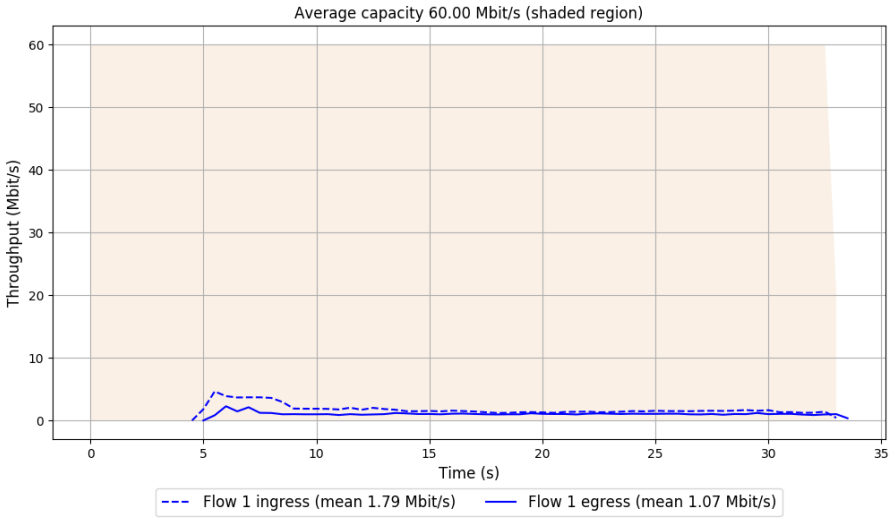


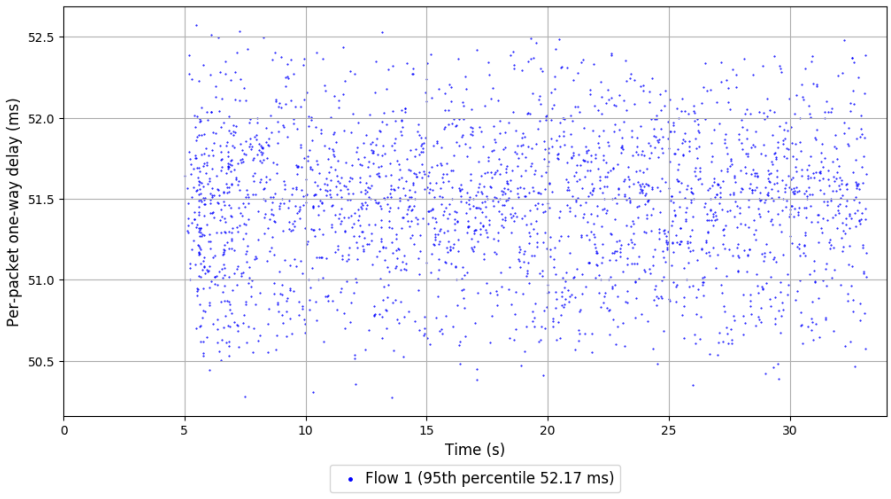
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:20:14
End at: 2020-04-16 08:20:44

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.07 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 52.172 ms
Loss rate: 40.06%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 52.172 ms
Loss rate: 40.06%
```

Run 1: Report of Indigo-MusesC5 — Data Link



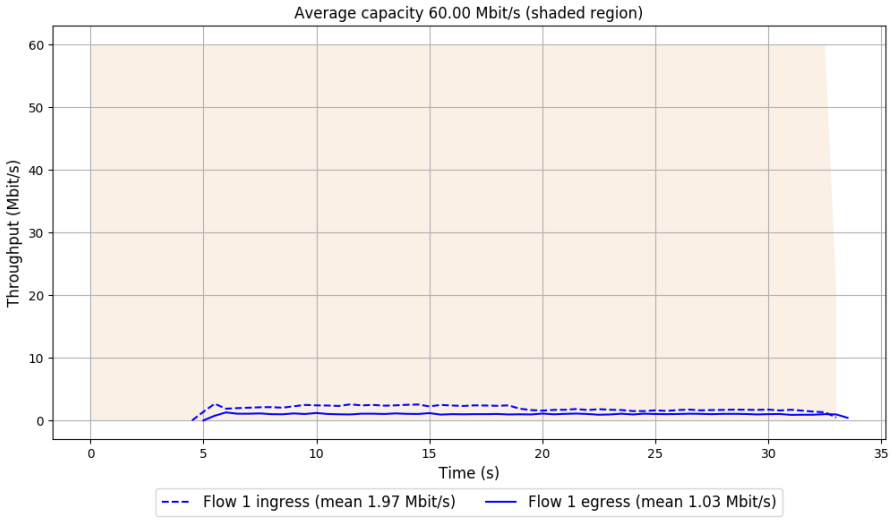


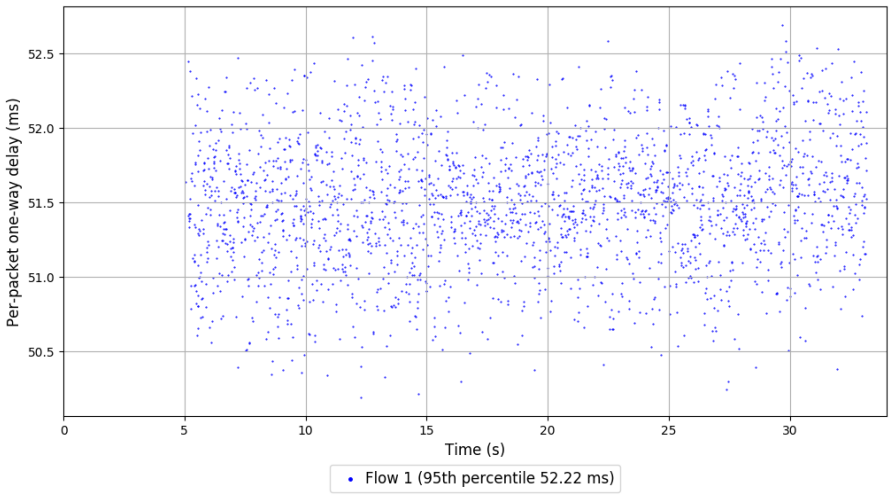
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:34:34
End at: 2020-04-16 08:35:04

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.03 Mbit/s (1.7% utilization)
95th percentile per-packet one-way delay: 52.218 ms
Loss rate: 47.93%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 52.218 ms
Loss rate: 47.93%
```

Run 2: Report of Indigo-MusesC5 — Data Link



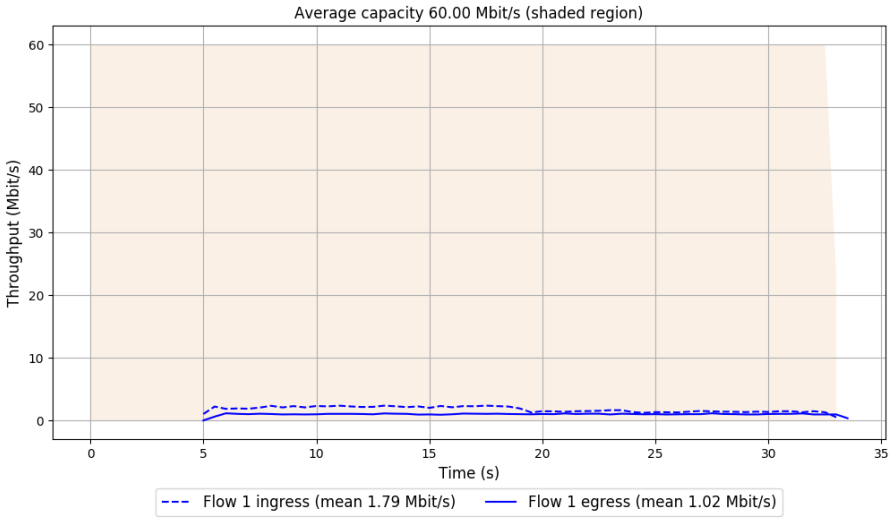


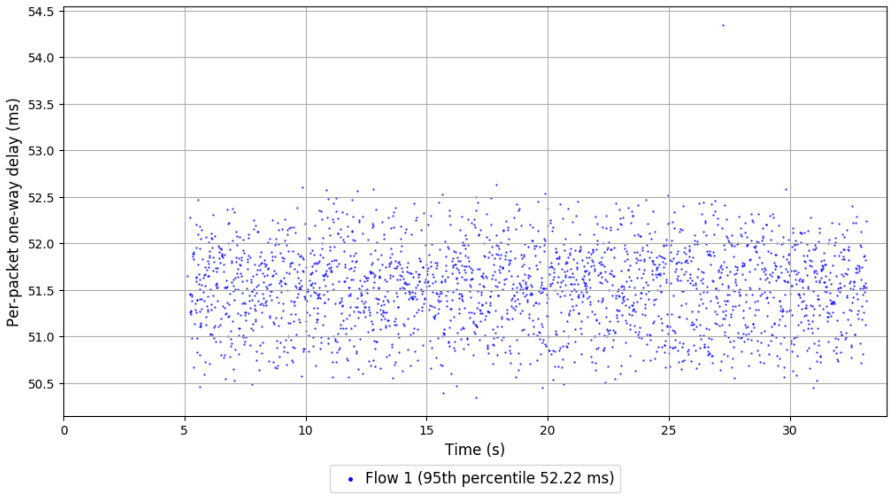
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:48:56
End at: 2020-04-16 08:49:26

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.02 Mbit/s (1.7% utilization)
95th percentile per-packet one-way delay: 52.219 ms
Loss rate: 43.14%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 52.219 ms
Loss rate: 43.14%
```

Run 3: Report of Indigo-MusesC5 — Data Link



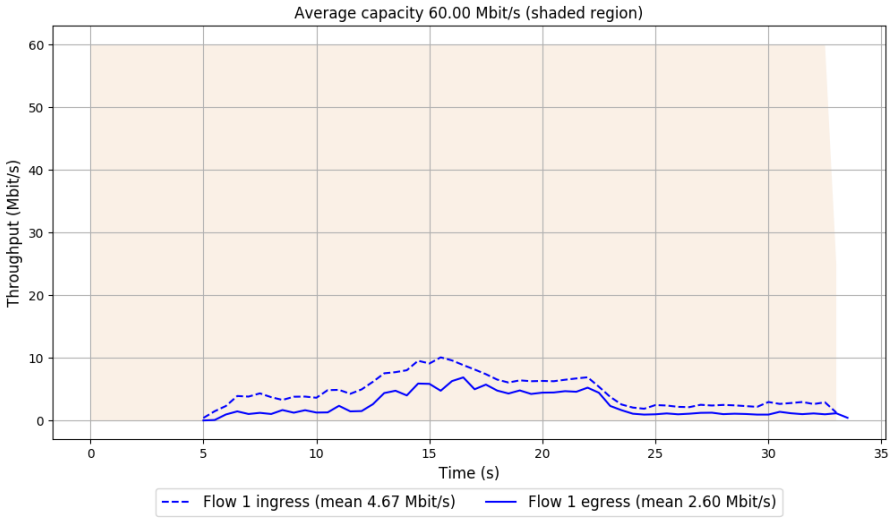


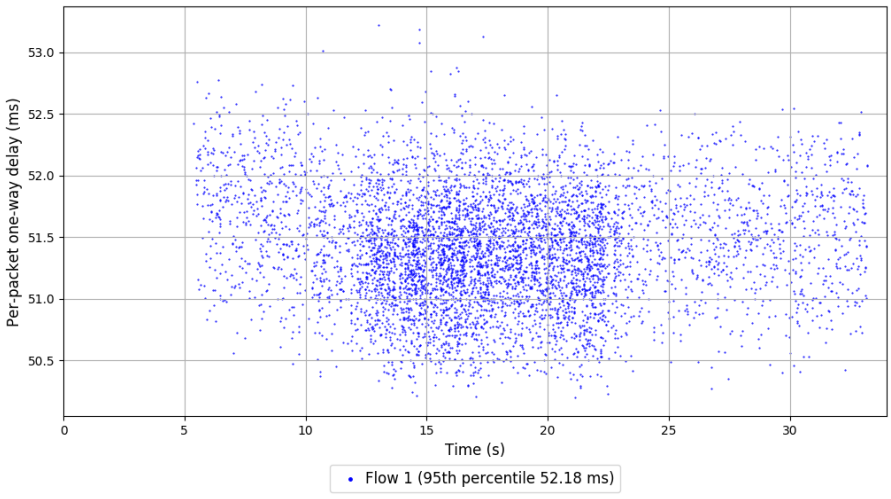
```
Run 1: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:14:17
End at: 2020-04-16 08:14:47

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.60 Mbit/s (4.3% utilization)
95th percentile per-packet one-way delay: 52.182 ms
Loss rate: 44.39%
-- Flow 1:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 52.182 ms
Loss rate: 44.39%
```

Run 1: Report of Indigo-MusesD — Data Link



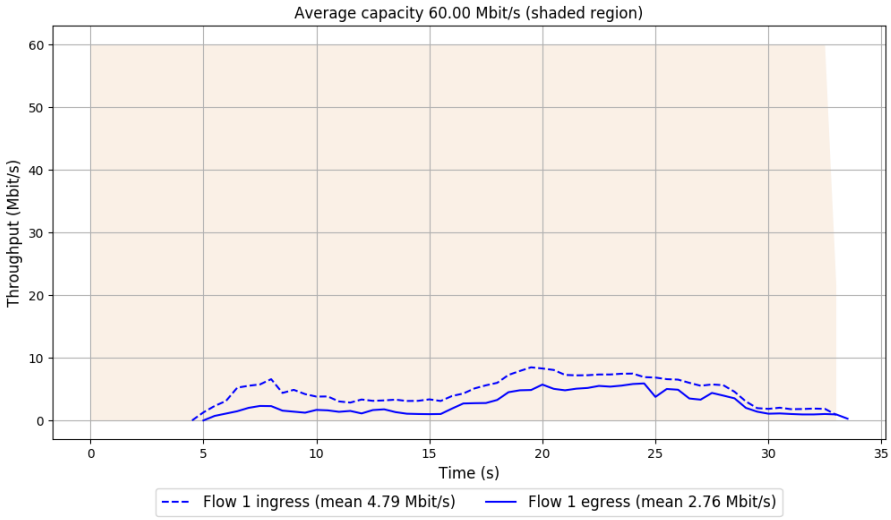


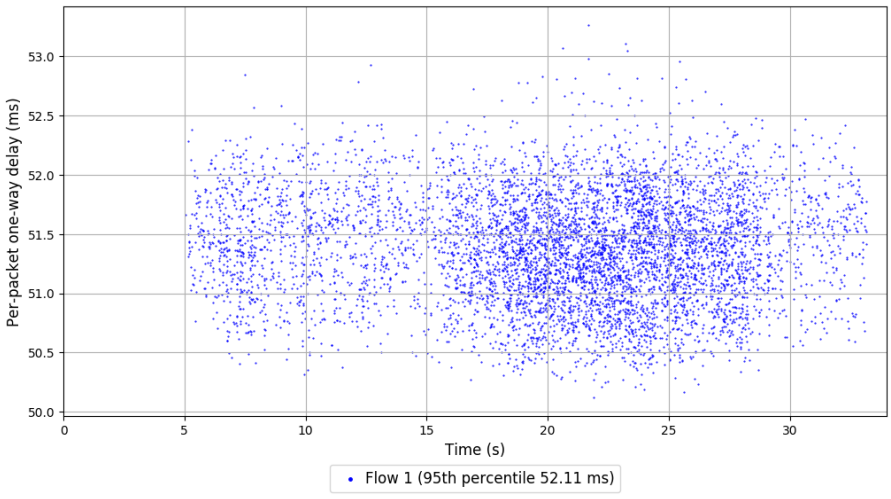
```
Run 2: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:28:38
End at: 2020-04-16 08:29:08

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.76 Mbit/s (4.6% utilization)
95th percentile per-packet one-way delay: 52.111 ms
Loss rate: 42.57%
-- Flow 1:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 52.111 ms
Loss rate: 42.57%
```

Run 2: Report of Indigo-MusesD — Data Link



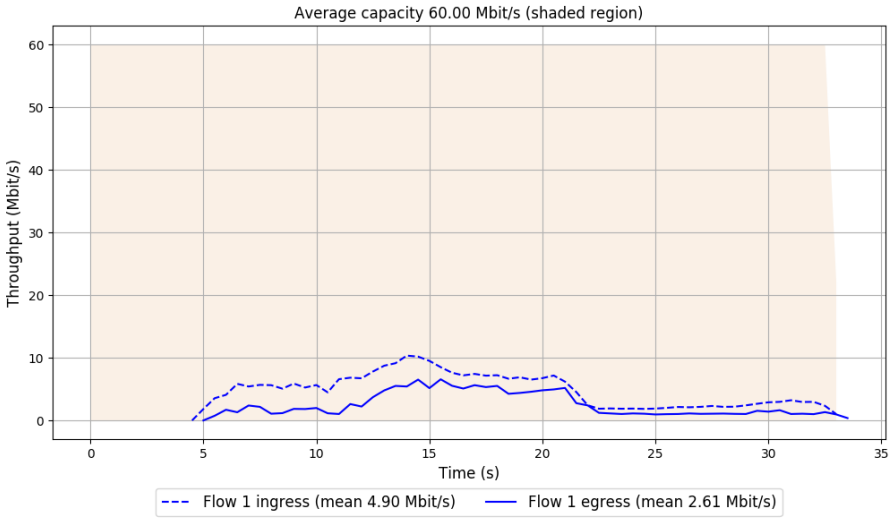


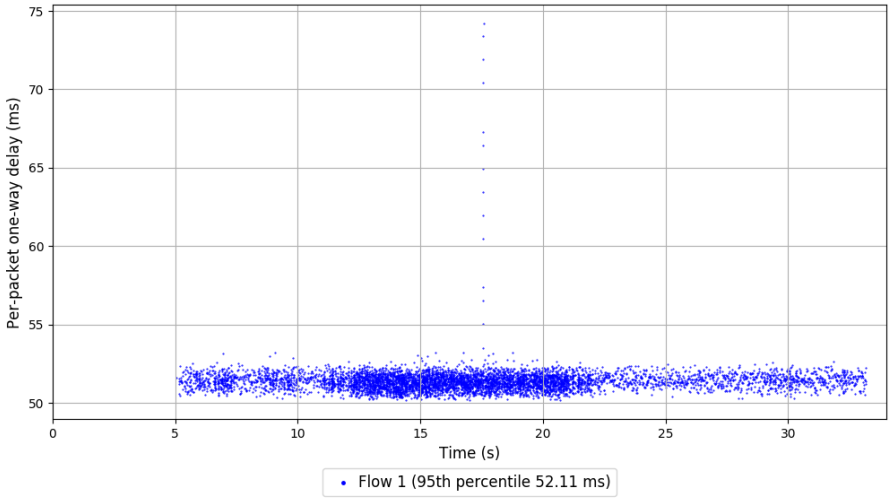
```
Run 3: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:42:59
End at: 2020-04-16 08:43:30

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.61 Mbit/s (4.3% utilization)
95th percentile per-packet one-way delay: 52.108 ms
Loss rate: 46.92%
-- Flow 1:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 52.108 ms
Loss rate: 46.92%
```

Run 3: Report of Indigo-MusesD — Data Link



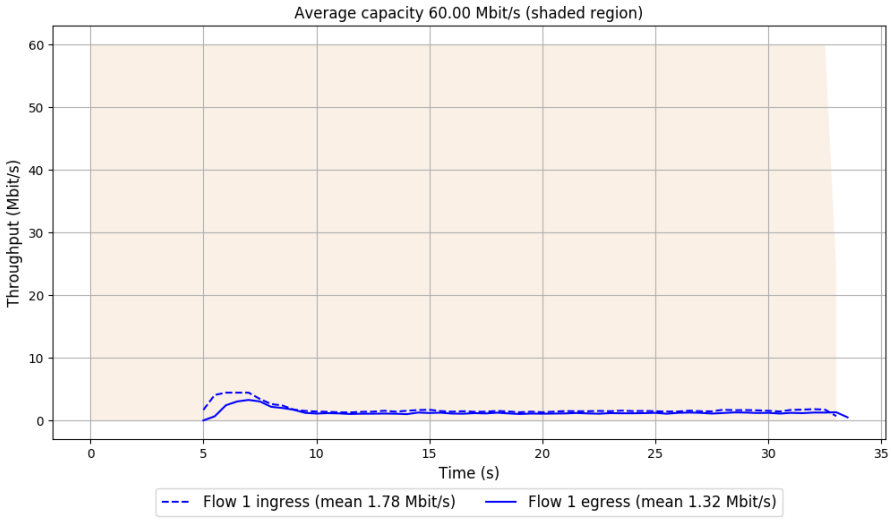


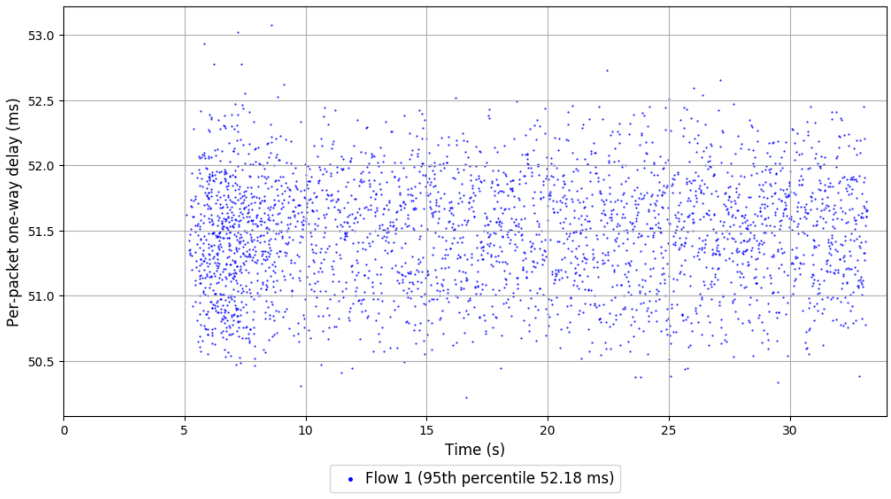
```
Run 1: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:10:43
End at: 2020-04-16 08:11:13

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.32 Mbit/s (2.2% utilization)
95th percentile per-packet one-way delay: 52.183 ms
Loss rate: 26.01%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 52.183 ms
Loss rate: 26.01%
```

Run 1: Report of Indigo-MusesT — Data Link



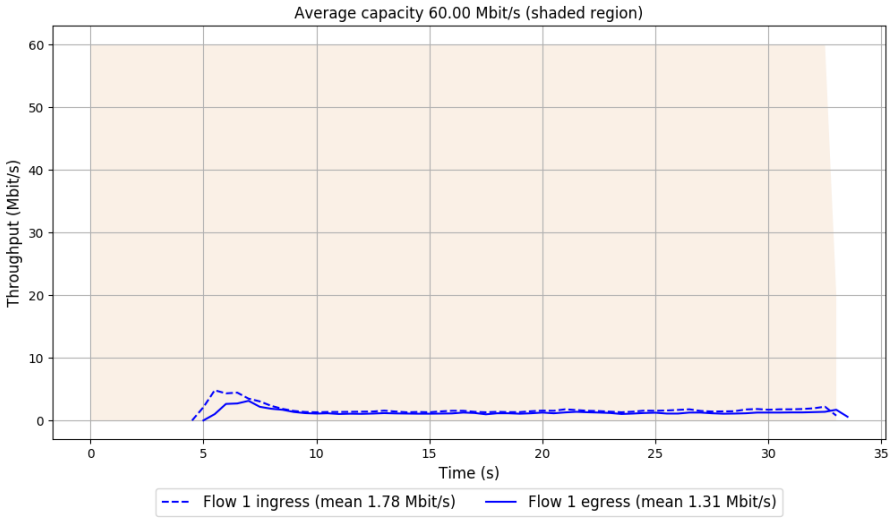


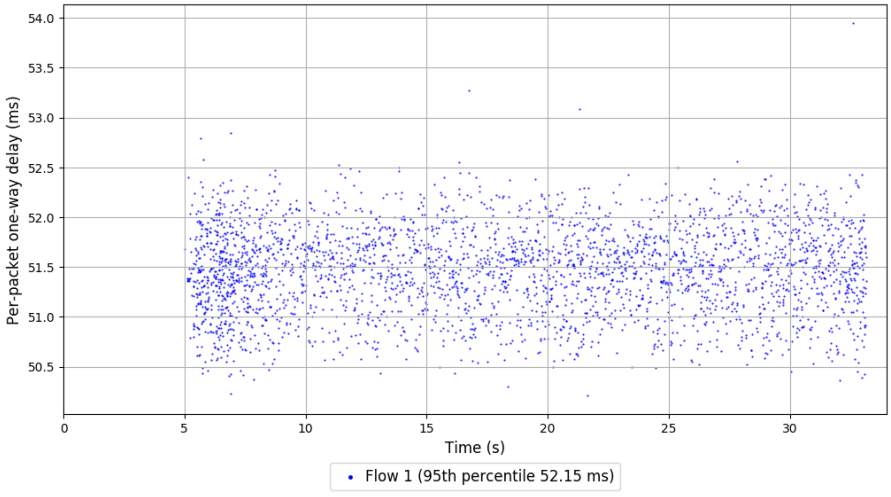
```
Run 2: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:25:04
End at: 2020-04-16 08:25:34

# Below is generated by plot.py at 2020-04-16 08:55:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.31 Mbit/s (2.2% utilization)
95th percentile per-packet one-way delay: 52.149 ms
Loss rate: 26.45%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 52.149 ms
Loss rate: 26.45%
```

Run 2: Report of Indigo-MusesT — Data Link



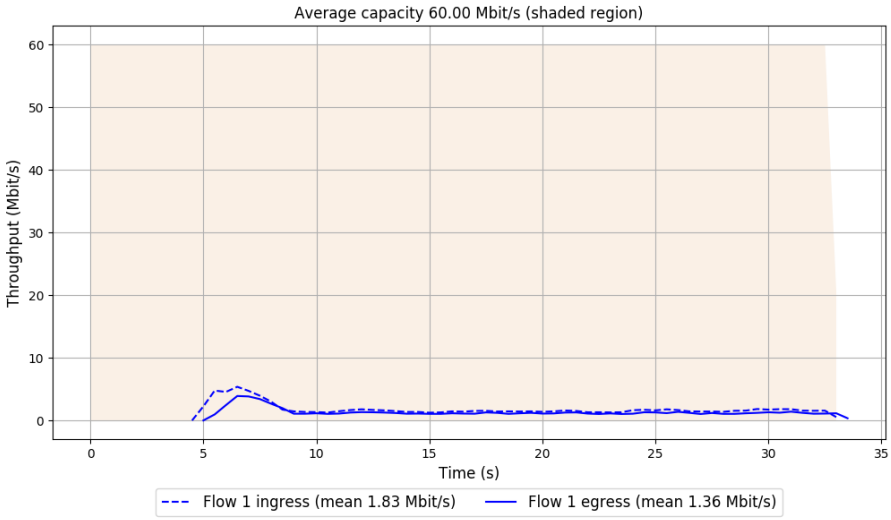


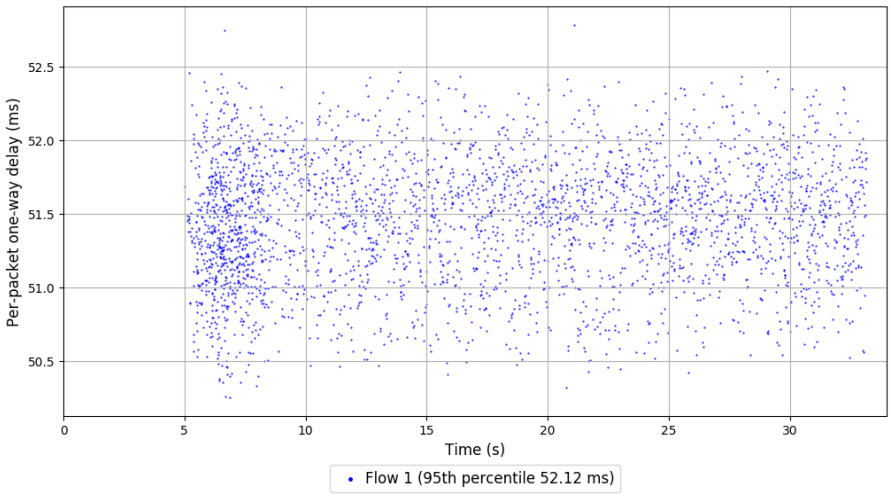
```
Run 3: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:39:25
End at: 2020-04-16 08:39:55

# Below is generated by plot.py at 2020-04-16 08:55:56
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.36 Mbit/s (2.3% utilization)
95th percentile per-packet one-way delay: 52.115 ms
Loss rate: 25.75%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 52.115 ms
Loss rate: 25.75%
```

Run 3: Report of Indigo-MusesT — Data Link



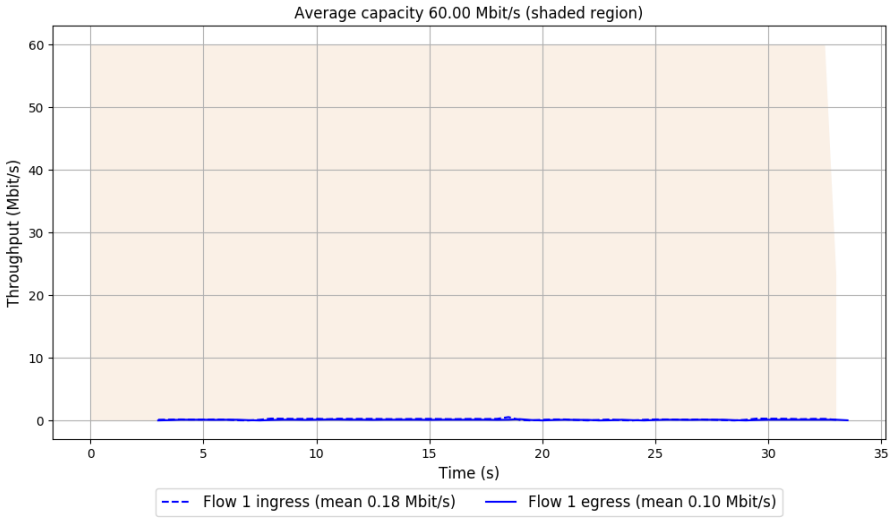


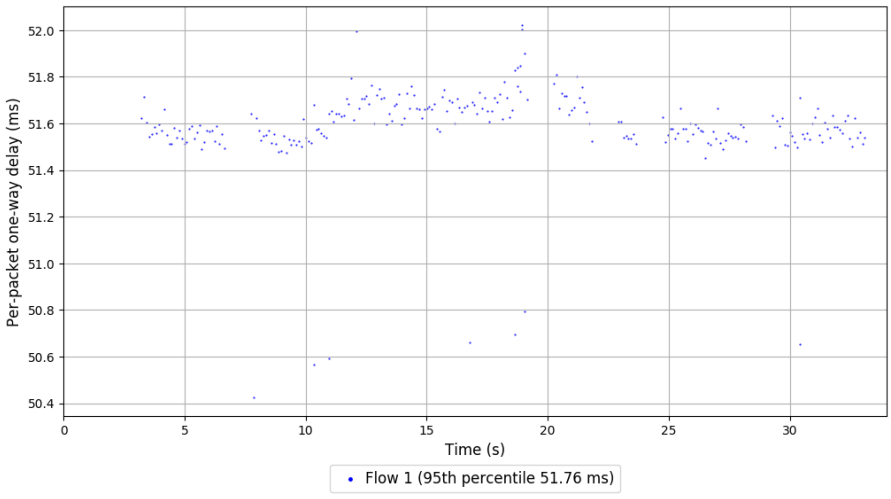
```
Run 1: Statistics of LEDBAT

Start at: 2020-04-16 08:24:29
End at: 2020-04-16 08:24:59

# Below is generated by plot.py at 2020-04-16 08:55:58
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.10 Mbit/s (0.2% utilization)
95th percentile per-packet one-way delay: 51.764 ms
Loss rate: 46.89%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 51.764 ms
Loss rate: 46.89%
```

Run 1: Report of LEDBAT — Data Link



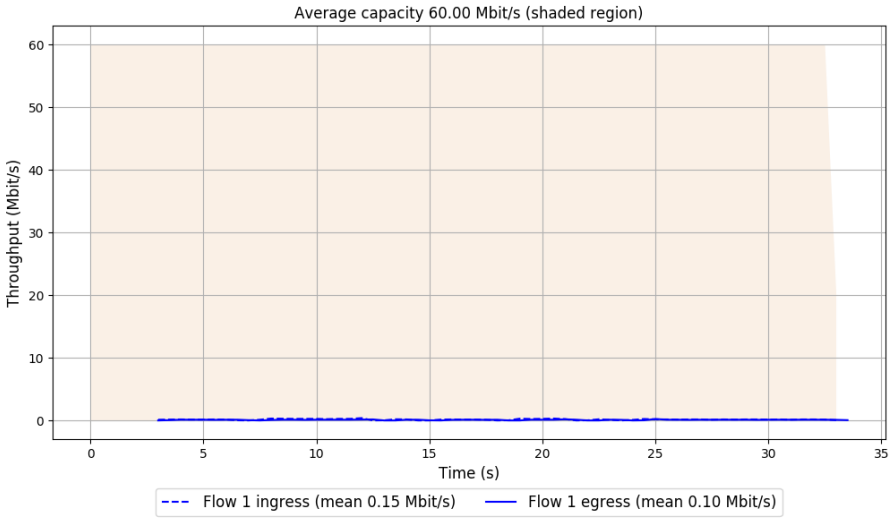


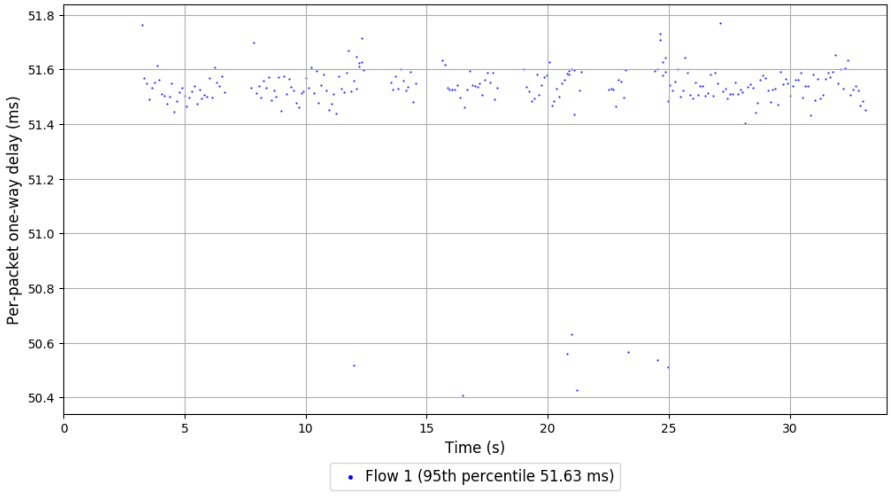
```
Run 2: Statistics of LEDBAT

Start at: 2020-04-16 08:38:49
End at: 2020-04-16 08:39:19

# Below is generated by plot.py at 2020-04-16 08:56:00
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.10 Mbit/s (0.2% utilization)
95th percentile per-packet one-way delay: 51.633 ms
Loss rate: 37.27%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 51.633 ms
Loss rate: 37.27%
```

Run 2: Report of LEDBAT — Data Link



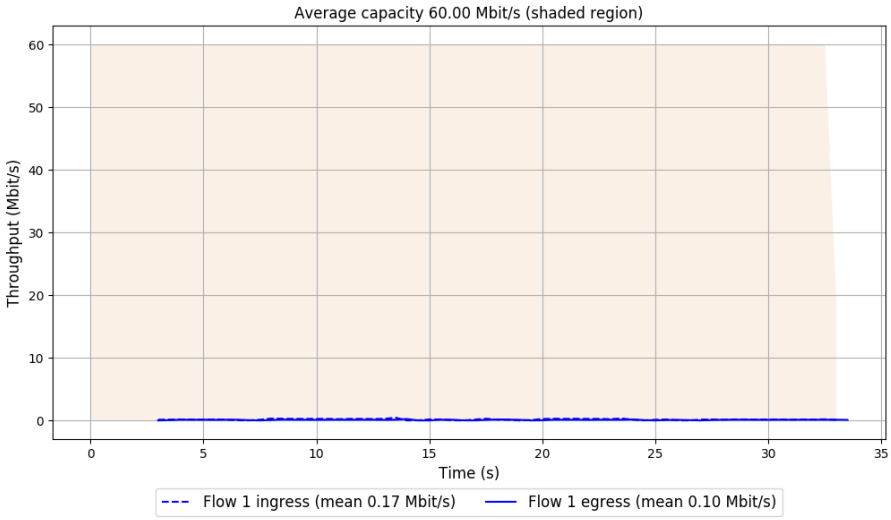


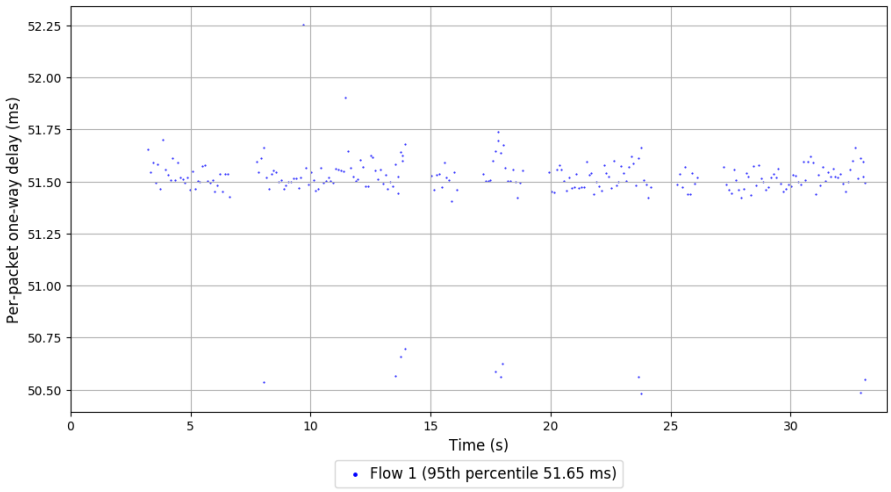
```
Run 3: Statistics of LEDBAT

Start at: 2020-04-16 08:53:17
End at: 2020-04-16 08:53:47

# Below is generated by plot.py at 2020-04-16 08:56:02
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.10 Mbit/s (0.2% utilization)
95th percentile per-packet one-way delay: 51.647 ms
Loss rate: 41.98%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 51.647 ms
Loss rate: 41.98%
```

Run 3: Report of LEDBAT — Data Link



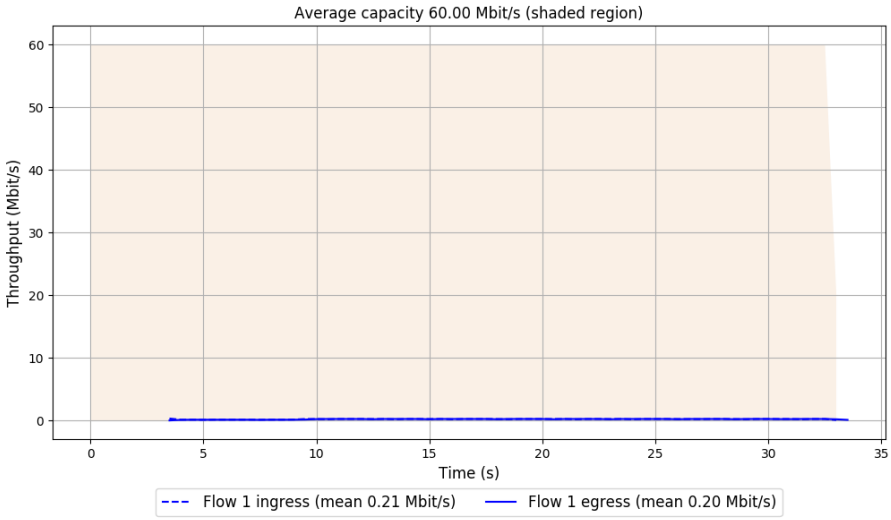


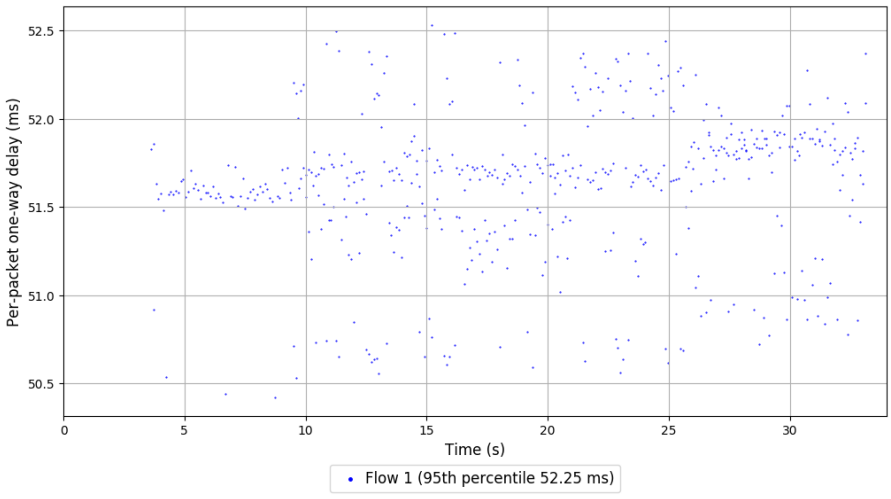
```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 08:19:03
End at: 2020-04-16 08:19:33

# Below is generated by plot.py at 2020-04-16 08:56:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.248 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.248 ms
Loss rate: 1.72%
```

Run 1: Report of Muses_DecisionTree — Data Link



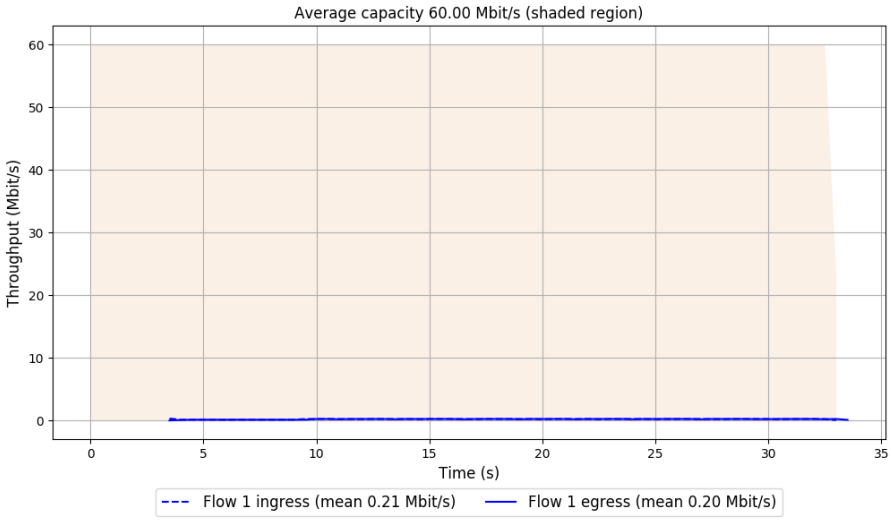


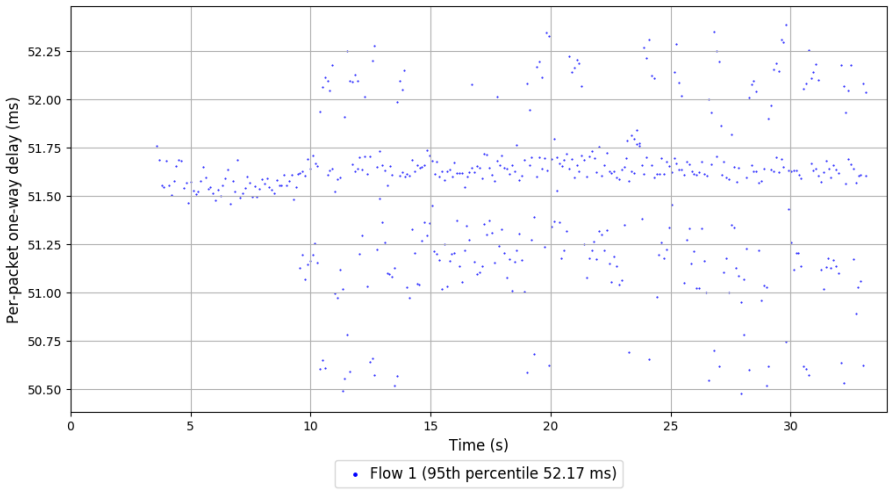
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 08:33:23
End at: 2020-04-16 08:33:53

# Below is generated by plot.py at 2020-04-16 08:56:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.167 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.167 ms
Loss rate: 1.72%
```

Run 2: Report of Muses_DecisionTree — Data Link



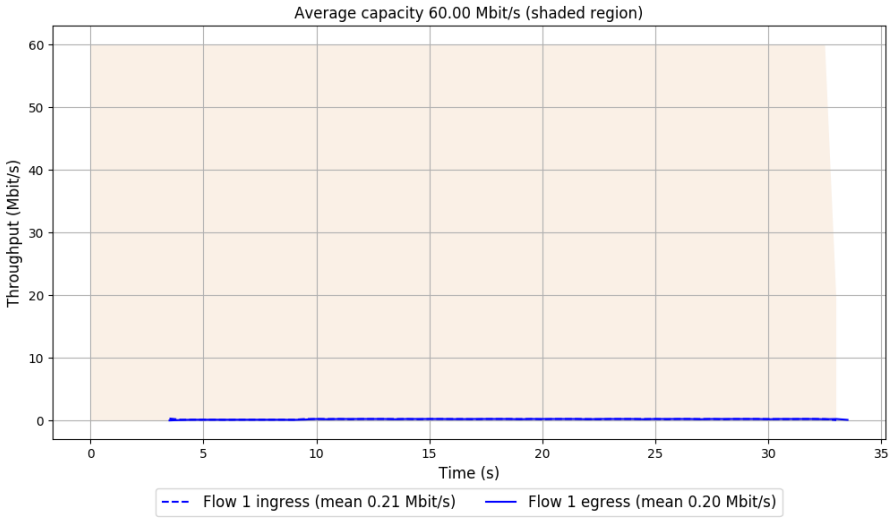


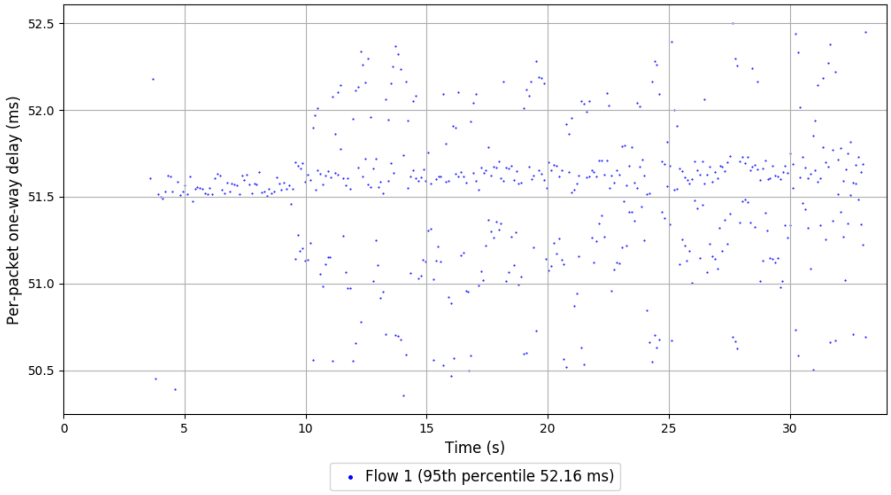
```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 08:47:45
End at: 2020-04-16 08:48:15

# Below is generated by plot.py at 2020-04-16 08:56:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.160 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.160 ms
Loss rate: 1.72%
```

Run 3: Report of Muses_DecisionTree — Data Link



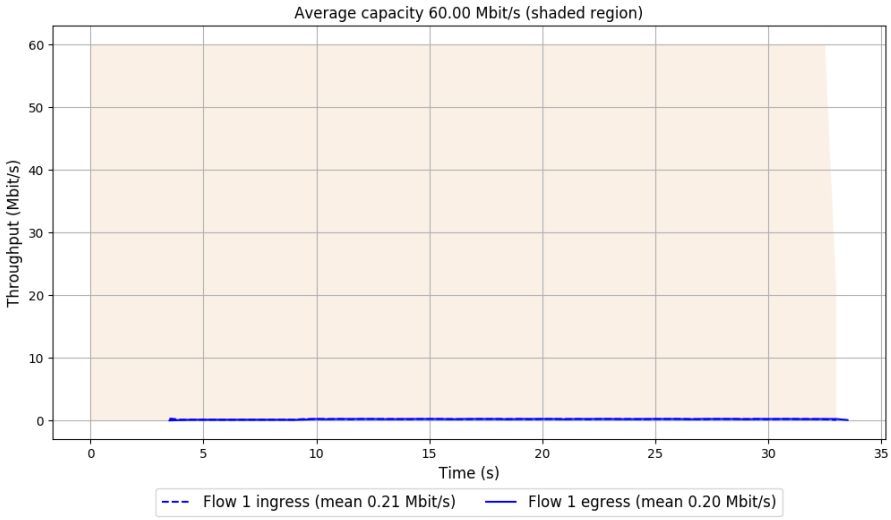


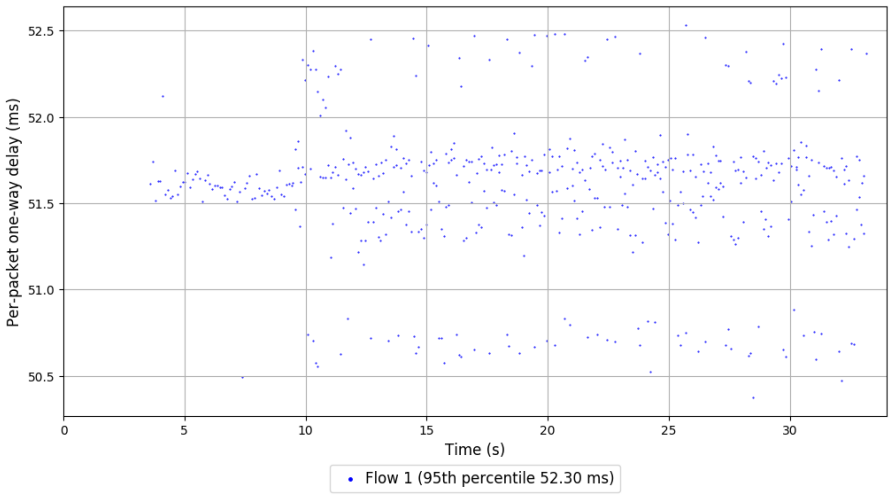
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:18:27
End at: 2020-04-16 08:18:57

# Below is generated by plot.py at 2020-04-16 08:56:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.300 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.300 ms
Loss rate: 1.91%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link



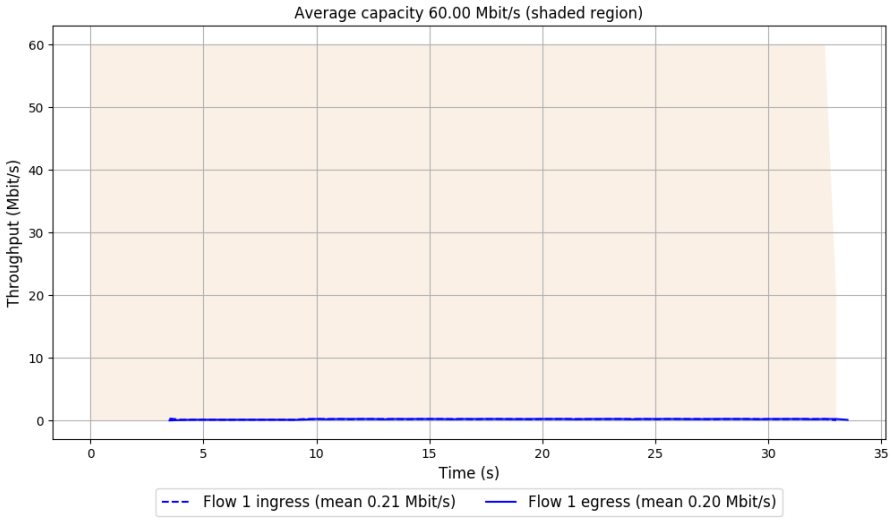


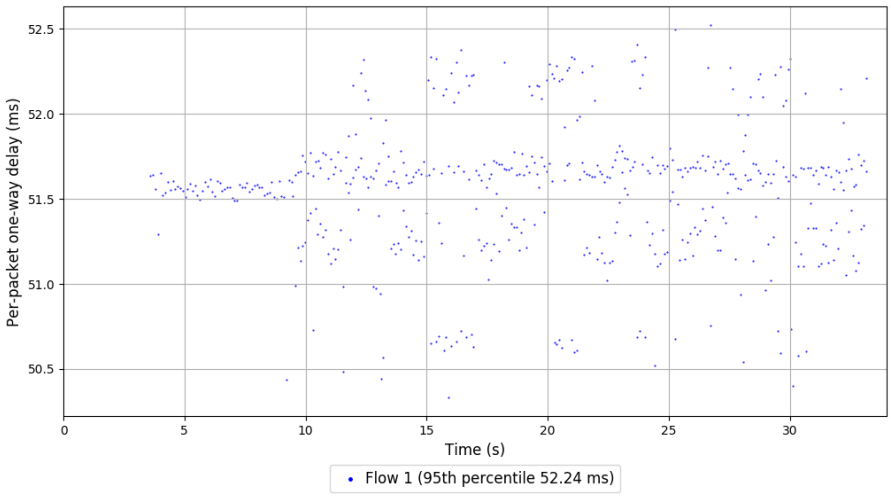
```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:32:48
End at: 2020-04-16 08:33:18

# Below is generated by plot.py at 2020-04-16 08:56:19
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.239 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.239 ms
Loss rate: 1.72%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link



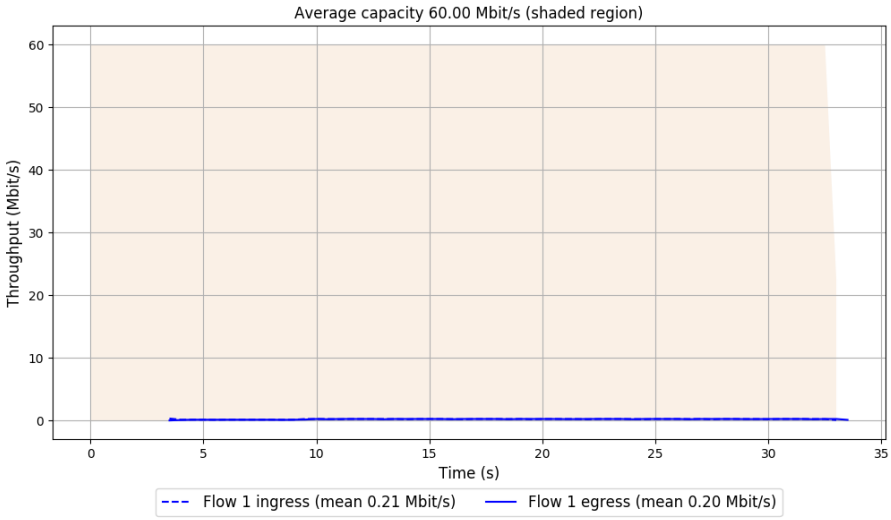


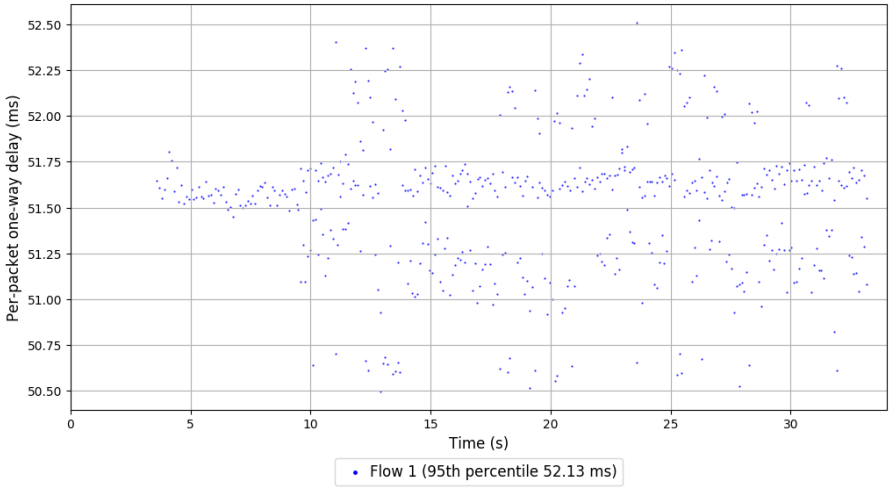
```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:47:09
End at: 2020-04-16 08:47:39

# Below is generated by plot.py at 2020-04-16 08:56:21
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.135 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.135 ms
Loss rate: 1.72%
```

Run 3: Report of Muses_DecisionTreeH0 — Data Link



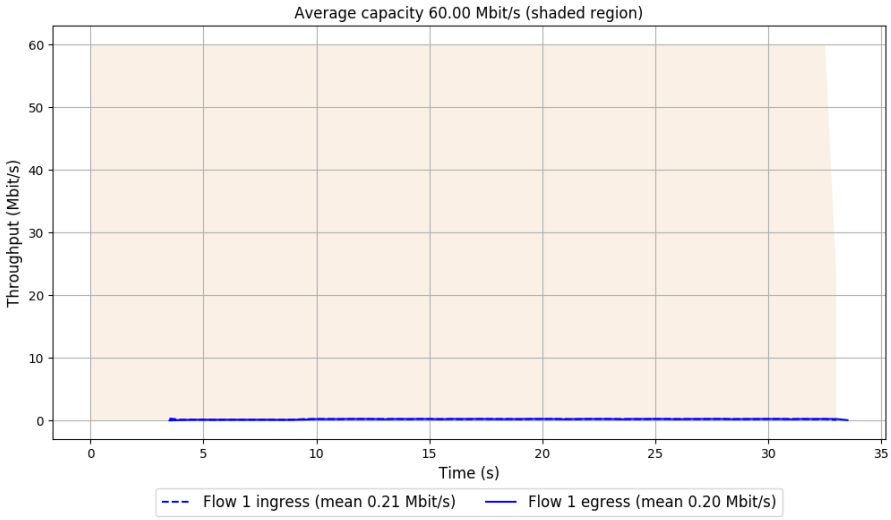


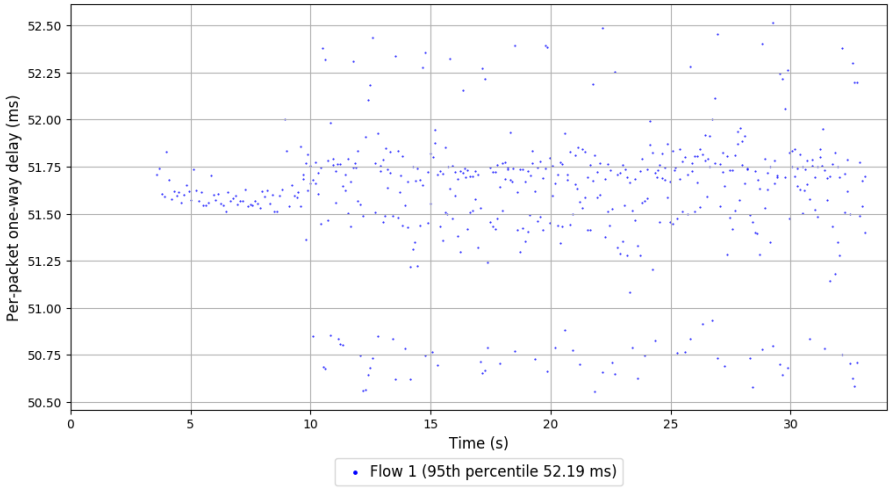
```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:14:53
End at: 2020-04-16 08:15:23

# Below is generated by plot.py at 2020-04-16 08:56:23
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.189 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.189 ms
Loss rate: 2.10%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link



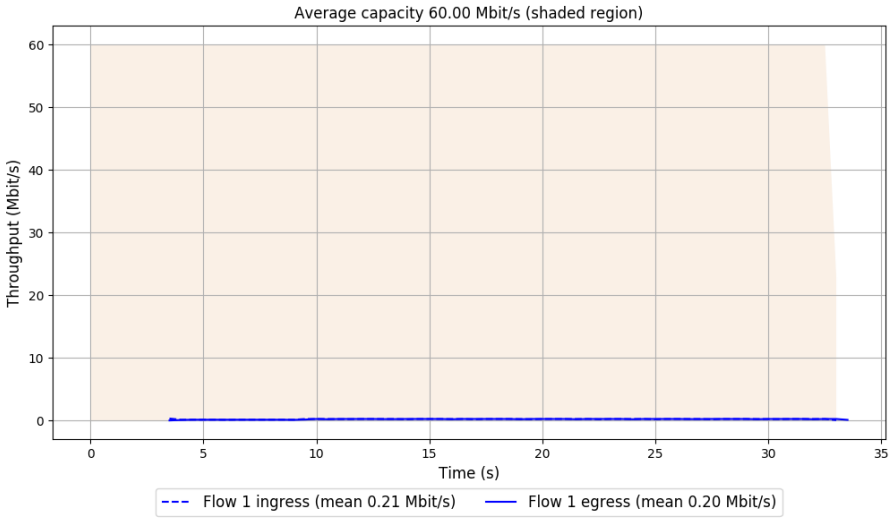


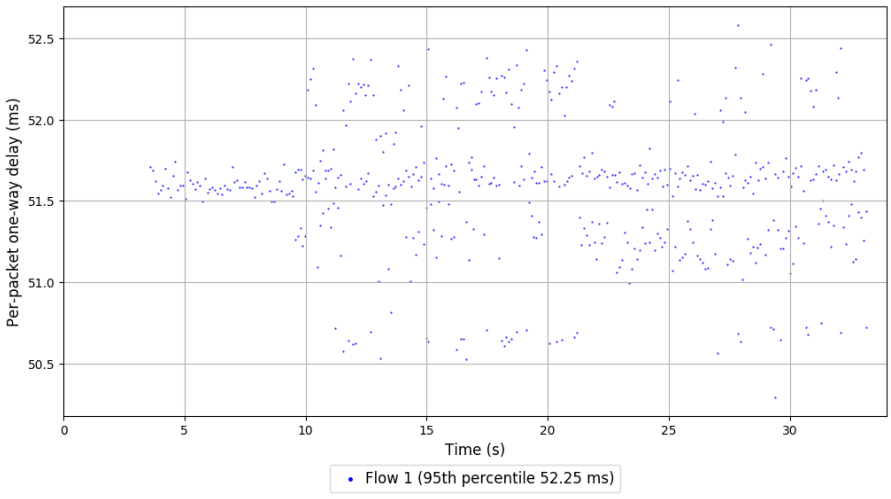
```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:29:14
End at: 2020-04-16 08:29:44

# Below is generated by plot.py at 2020-04-16 08:56:25
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.254 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.254 ms
Loss rate: 1.72%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link



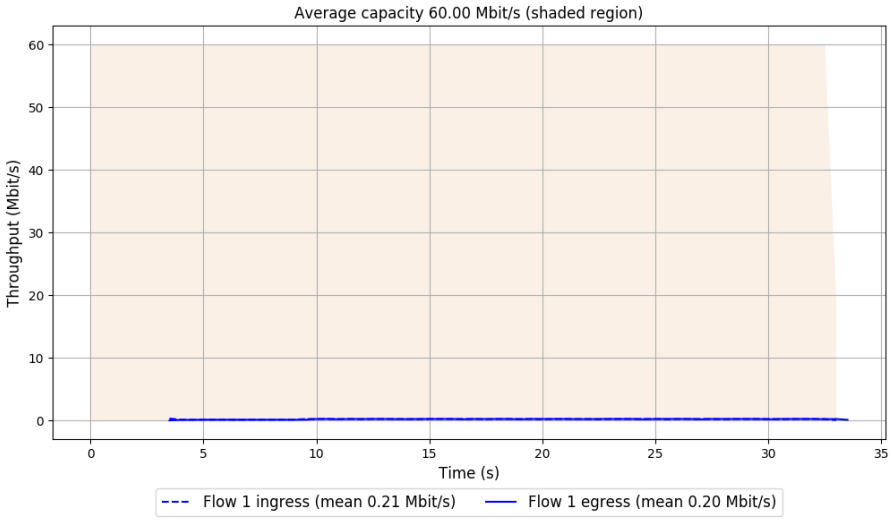


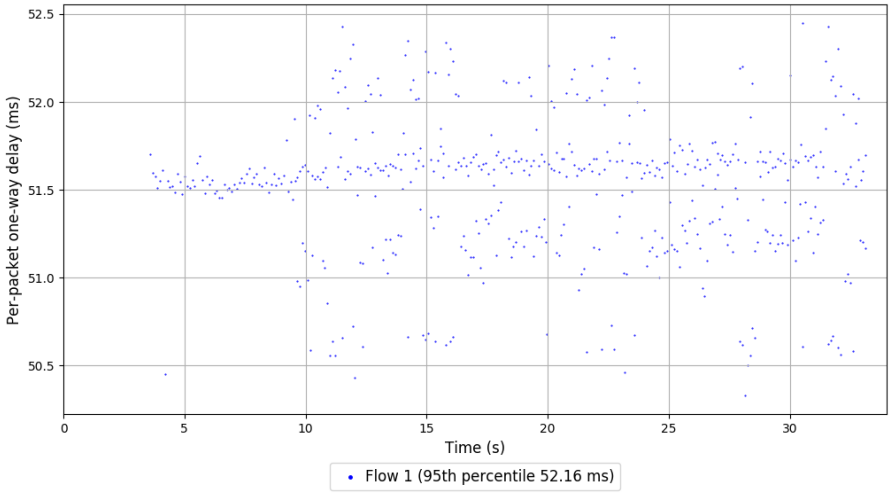
```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:43:35
End at: 2020-04-16 08:44:05

# Below is generated by plot.py at 2020-04-16 08:56:26
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.156 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.156 ms
Loss rate: 1.72%
```

Run 3: Report of Muses_DecisionTreeR0 — Data Link



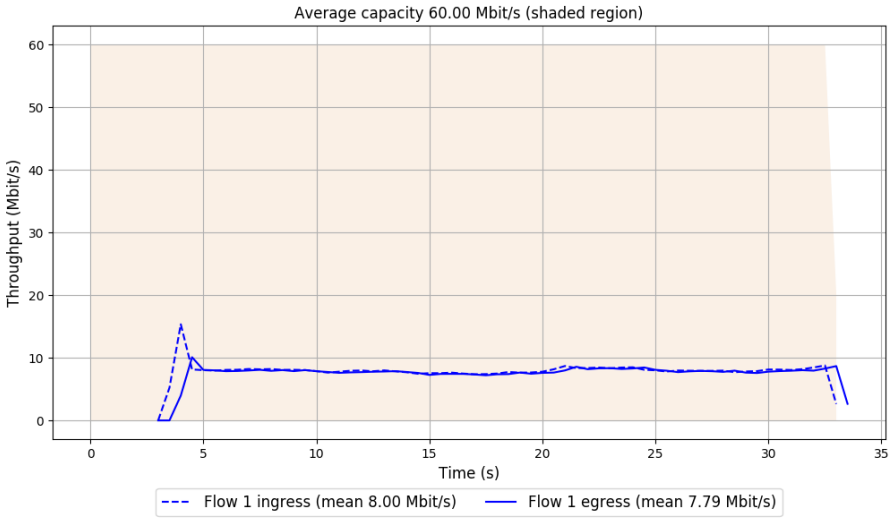


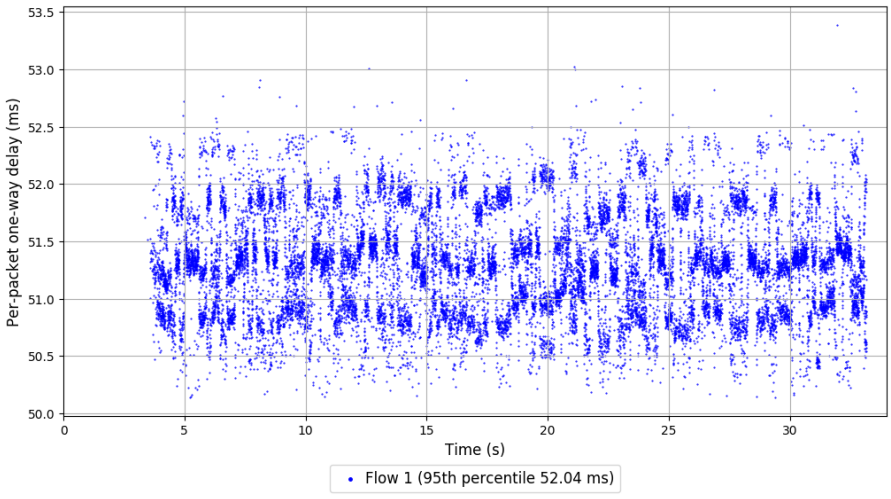
```
Run 1: Statistics of PCC-Allegro

Start at: 2020-04-16 08:13:41
End at: 2020-04-16 08:14:11

# Below is generated by plot.py at 2020-04-16 08:56:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.79 Mbit/s (13.0% utilization)
95th percentile per-packet one-way delay: 52.036 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 52.036 ms
Loss rate: 2.81%
```

Run 1: Report of PCC-Allegro — Data Link



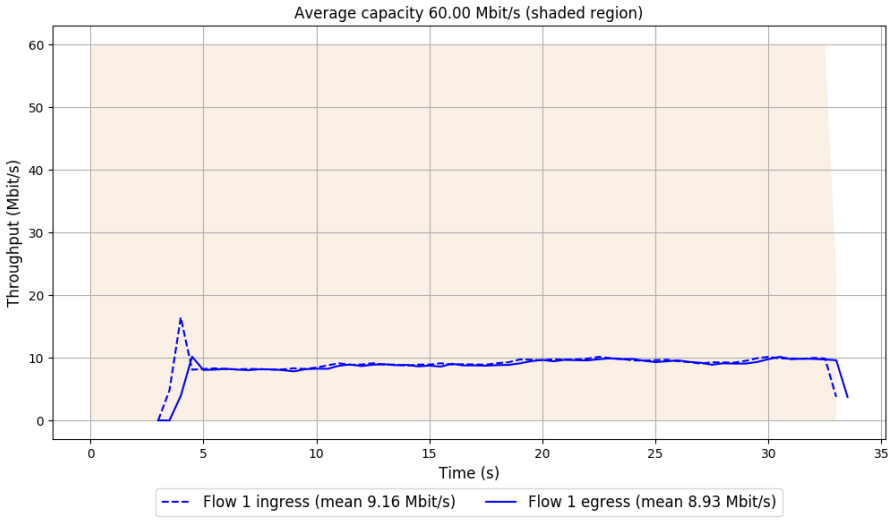


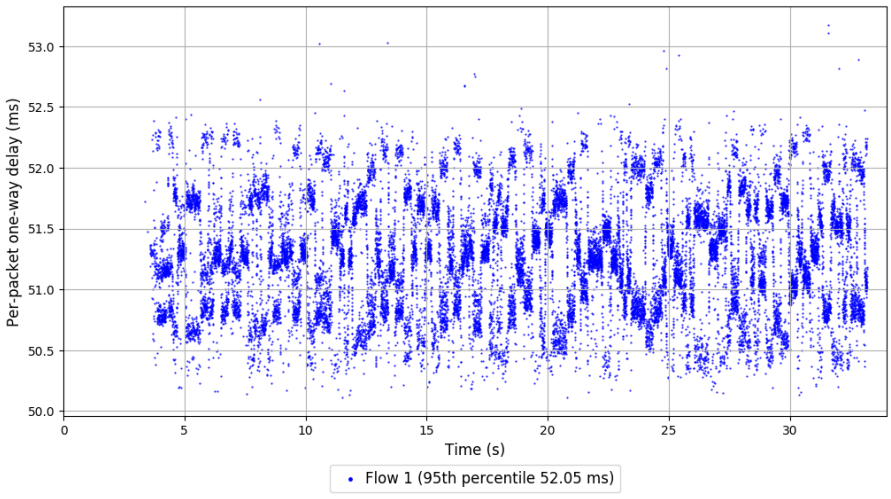
```
Run 2: Statistics of PCC-Allegro

Start at: 2020-04-16 08:28:02
End at: 2020-04-16 08:28:32

# Below is generated by plot.py at 2020-04-16 08:56:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 8.93 Mbit/s (14.9% utilization)
95th percentile per-packet one-way delay: 52.055 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 52.055 ms
Loss rate: 2.69%
```

Run 2: Report of PCC-Allegro — Data Link



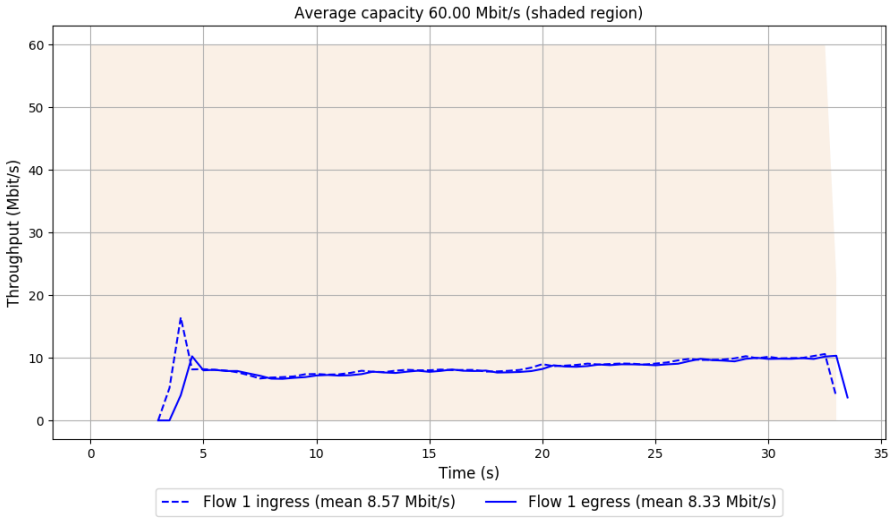


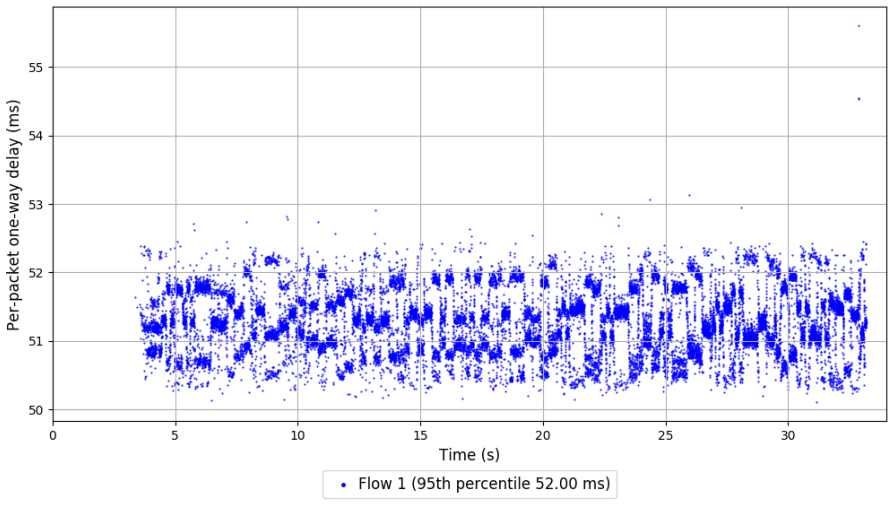
```
Run 3: Statistics of PCC-Allegro

Start at: 2020-04-16 08:42:24
End at: 2020-04-16 08:42:54

# Below is generated by plot.py at 2020-04-16 08:56:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 8.33 Mbit/s (13.9% utilization)
95th percentile per-packet one-way delay: 52.004 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 52.004 ms
Loss rate: 3.01%
```

Run 3: Report of PCC-Allegro — Data Link

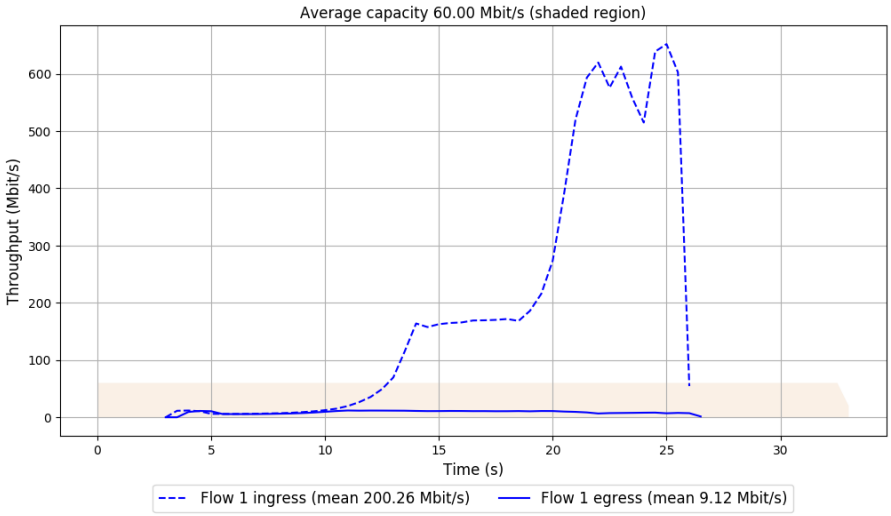


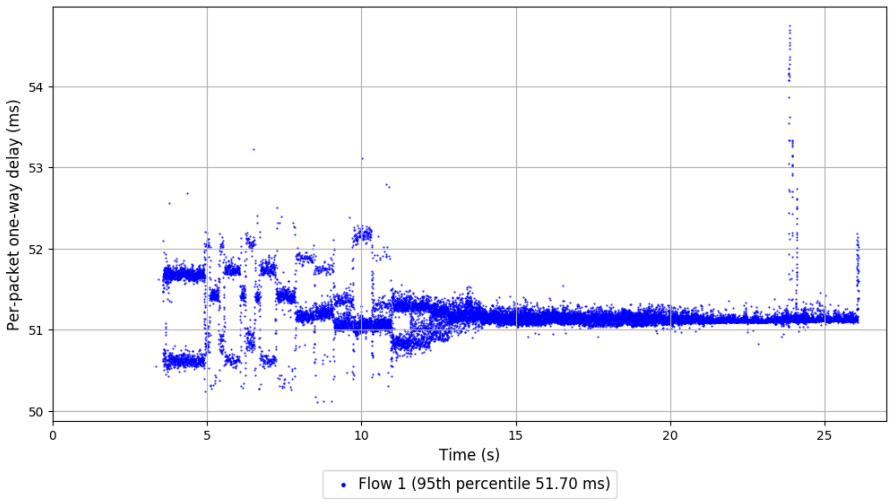


```
Run 1: Statistics of PCC-Expr

Start at: 2020-04-16 08:23:49
End at: 2020-04-16 08:24:19
```

Run 1: Report of PCC-Expr — Data Link

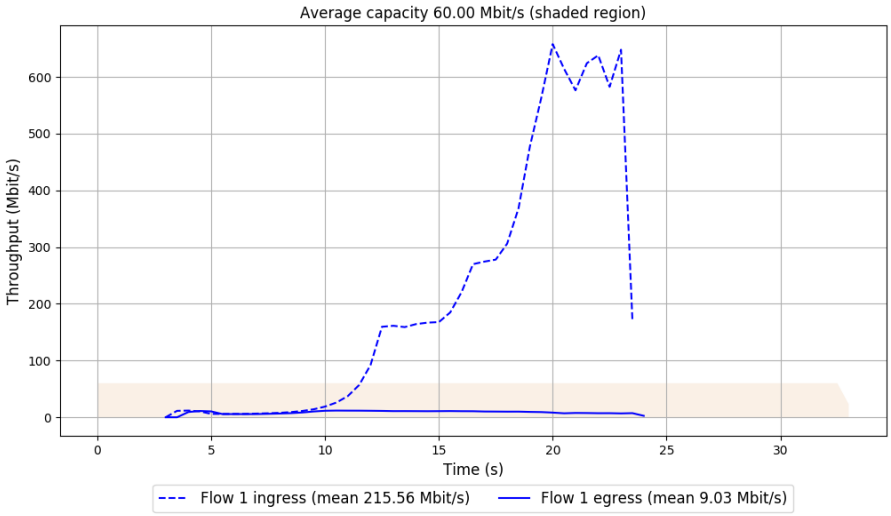


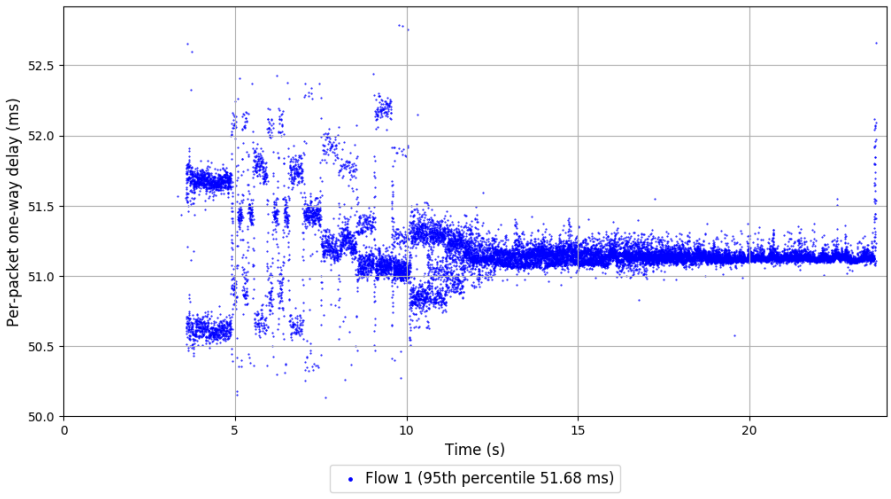


```
Run 2: Statistics of PCC-Expr

Start at: 2020-04-16 08:38:09
End at: 2020-04-16 08:38:39
```

Run 2: Report of PCC-Expr — Data Link



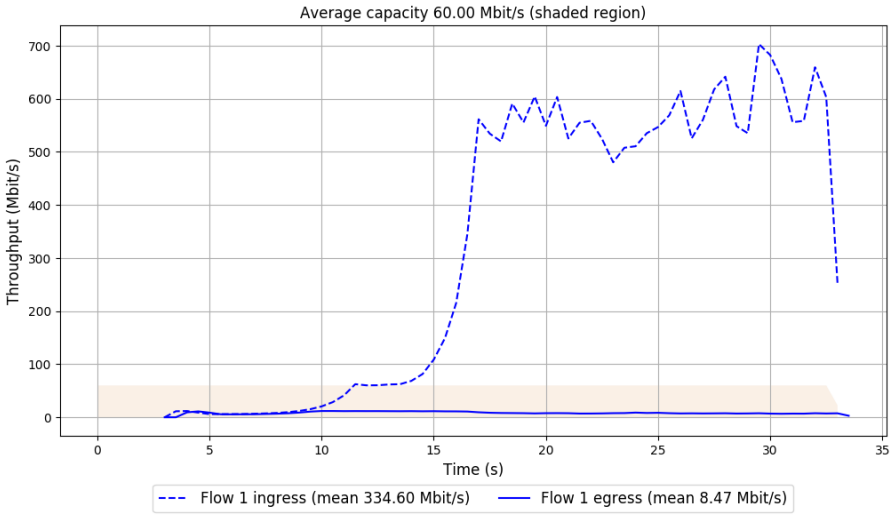


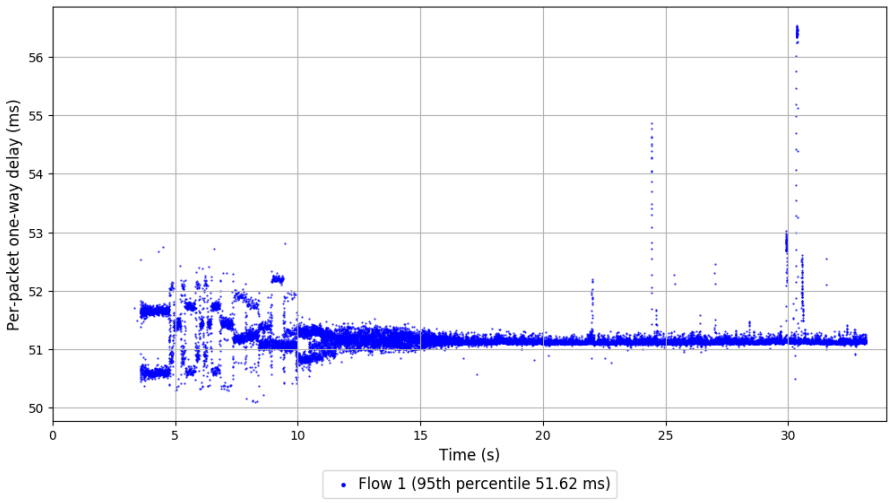
```
Run 3: Statistics of PCC-Expr

Start at: 2020-04-16 08:52:31
End at: 2020-04-16 08:53:01

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 8.47 Mbit/s (14.1% utilization)
95th percentile per-packet one-way delay: 51.620 ms
Loss rate: 97.47%
-- Flow 1:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 51.620 ms
Loss rate: 97.47%
```

Run 3: Report of PCC-Expr — Data Link



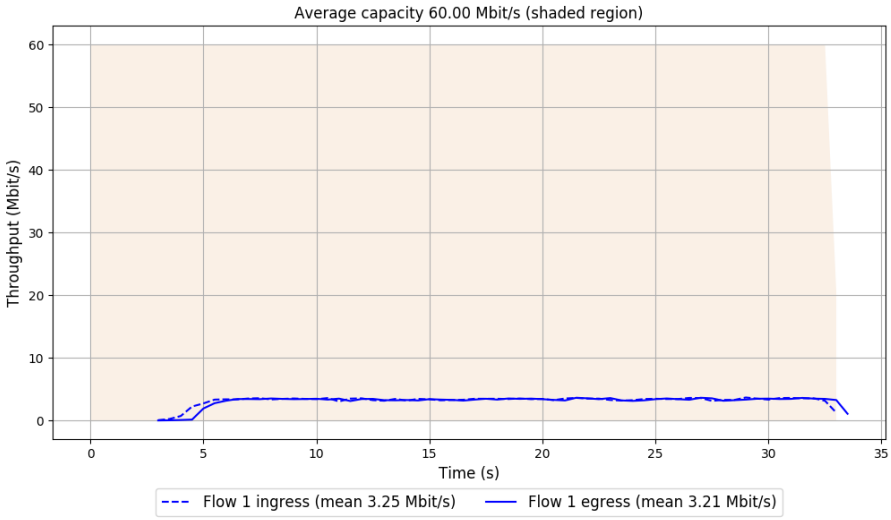


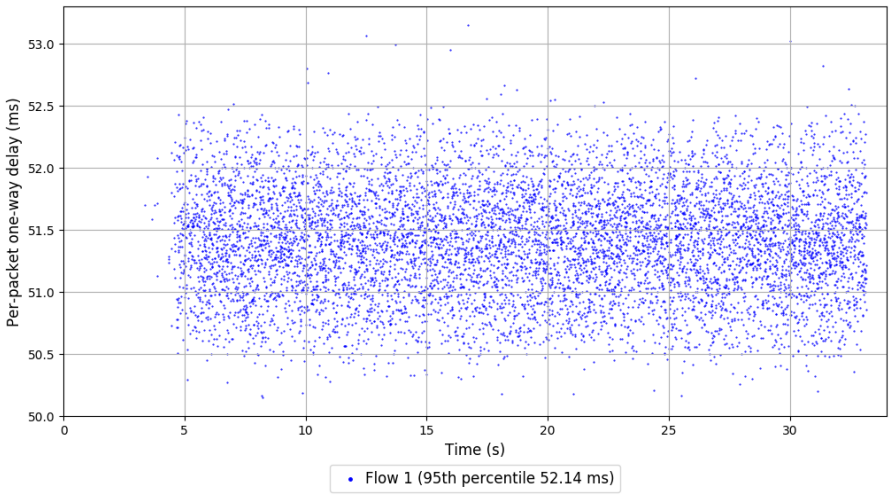
```
Run 1: Statistics of QUIC Cubic

Start at: 2020-04-16 08:12:30
End at: 2020-04-16 08:13:00

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 3.21 Mbit/s (5.4% utilization)
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 1.37%
```

Run 1: Report of QUIC Cubic — Data Link



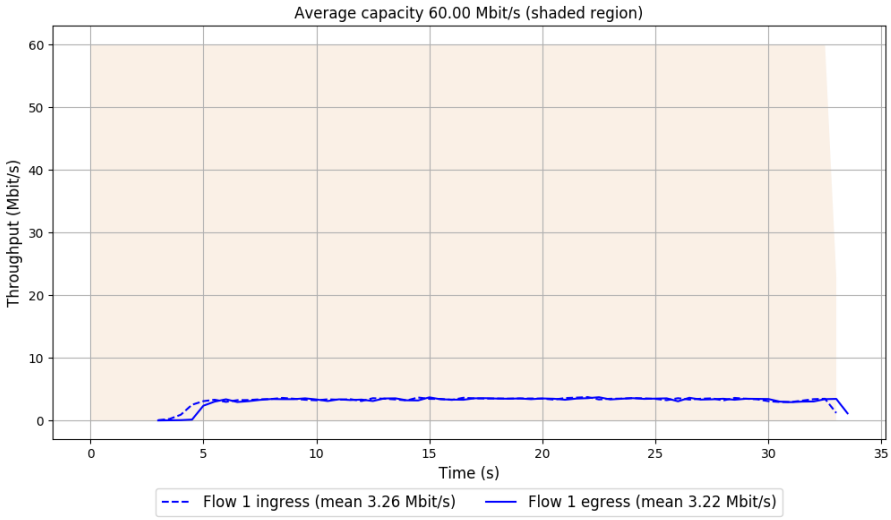


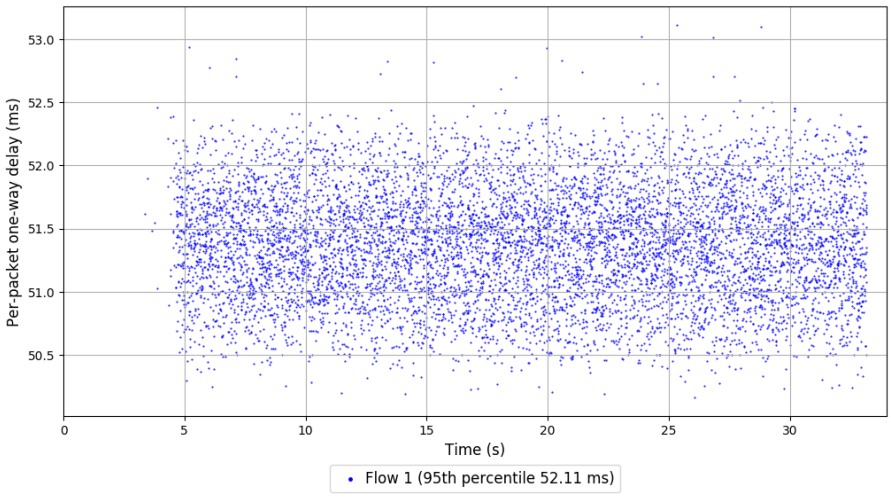
```
Run 2: Statistics of QUIC Cubic

Start at: 2020-04-16 08:26:51
End at: 2020-04-16 08:27:21

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 3.22 Mbit/s (5.4% utilization)
95th percentile per-packet one-way delay: 52.113 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 52.113 ms
Loss rate: 1.46%
```

Run 2: Report of QUIC Cubic — Data Link



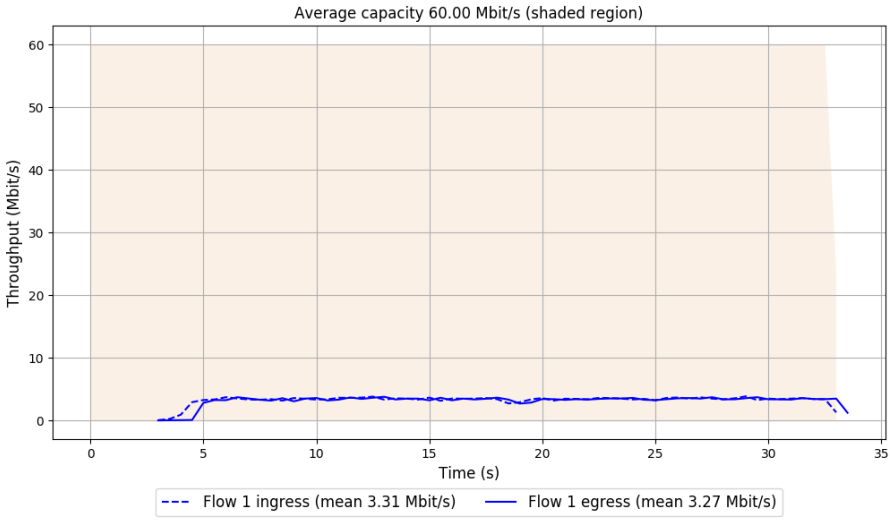


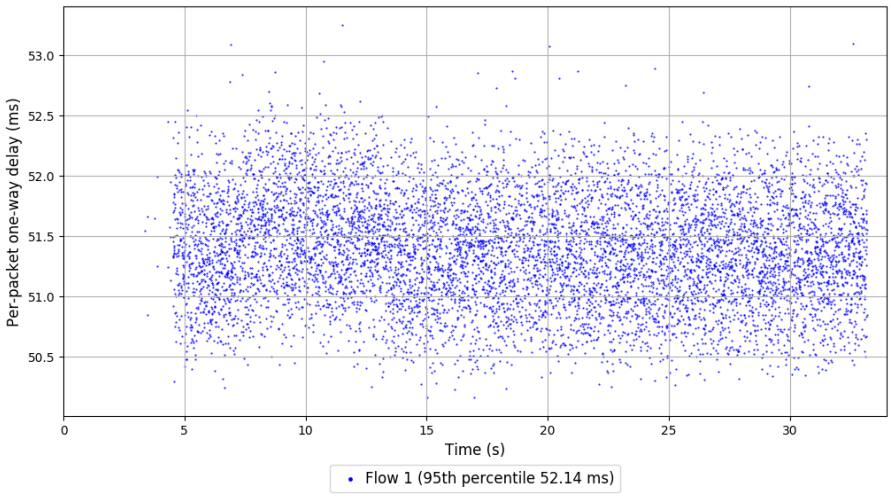
```
Run 3: Statistics of QUIC Cubic

Start at: 2020-04-16 08:41:12
End at: 2020-04-16 08:41:42

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 3.27 Mbit/s (5.5% utilization)
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 1.40%
```

Run 3: Report of QUIC Cubic — Data Link



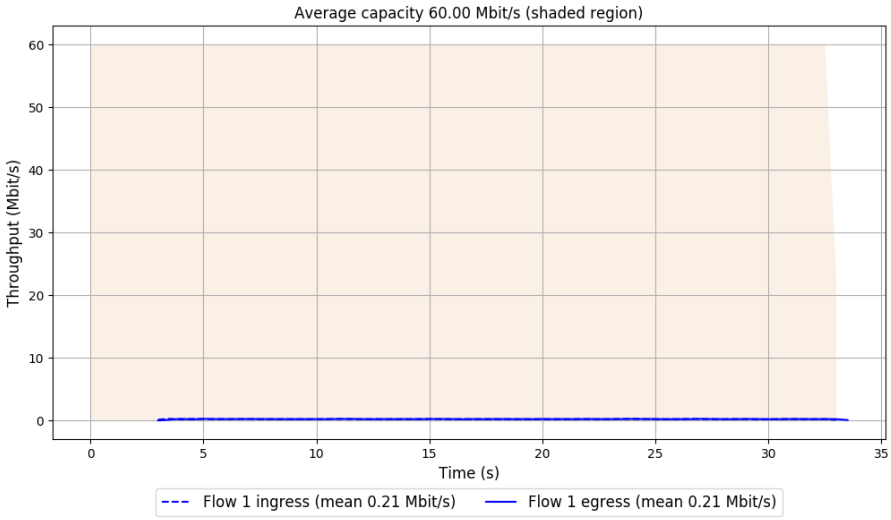


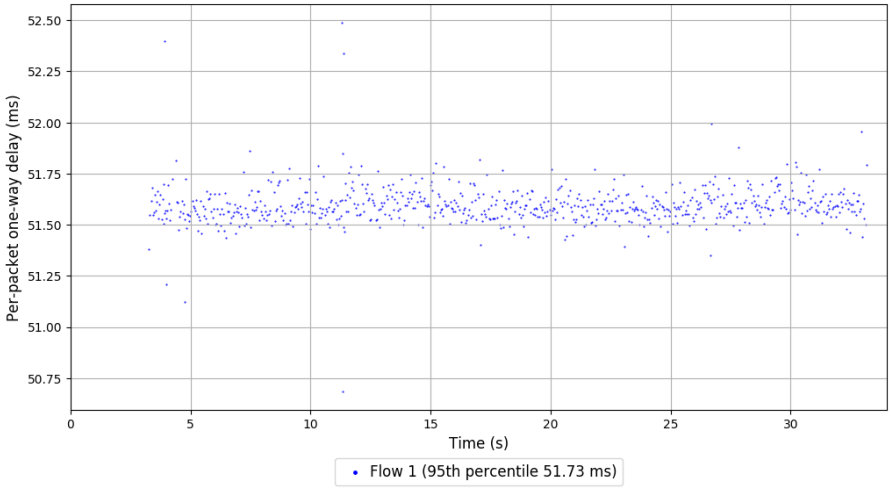
```
Run 1: Statistics of SCReAM

Start at: 2020-04-16 08:13:05
End at: 2020-04-16 08:13:35

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.21 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 51.730 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 51.730 ms
Loss rate: 0.26%
```

Run 1: Report of SCReAM — Data Link



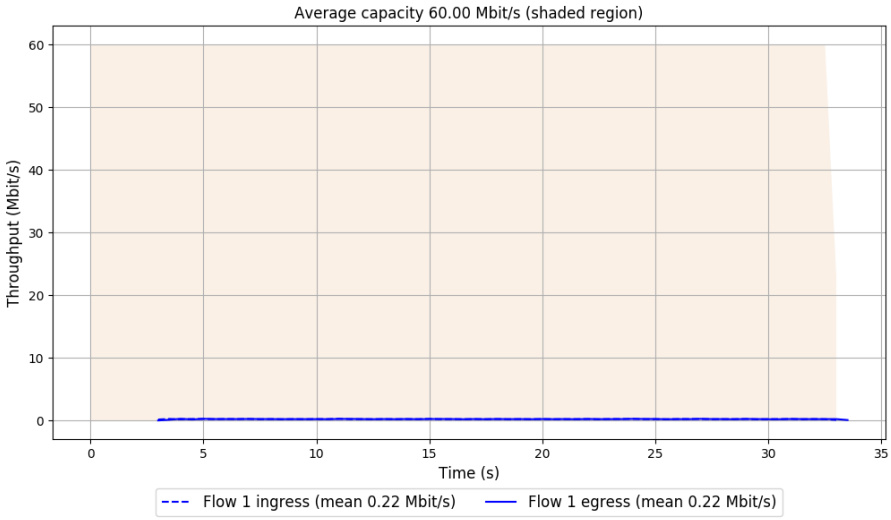


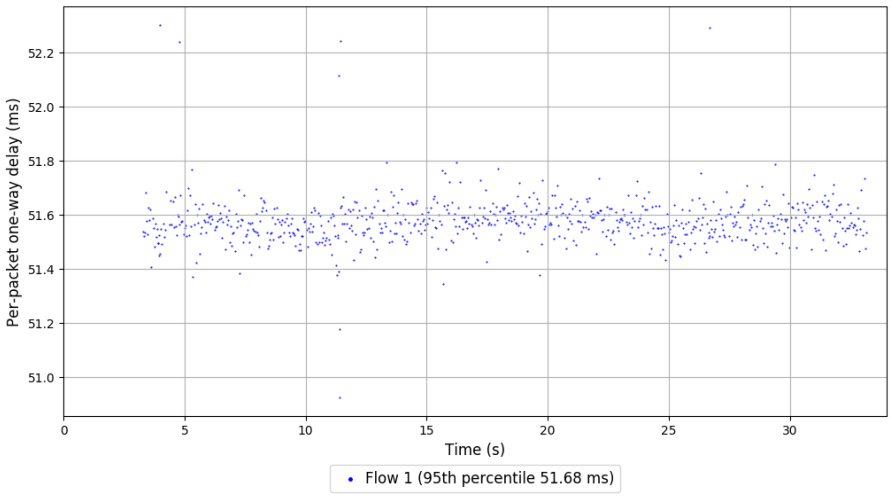
```
Run 2: Statistics of SCReAM

Start at: 2020-04-16 08:27:27
End at: 2020-04-16 08:27:57

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.22 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 51.683 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.683 ms
Loss rate: 0.26%
```

Run 2: Report of SCReAM — Data Link



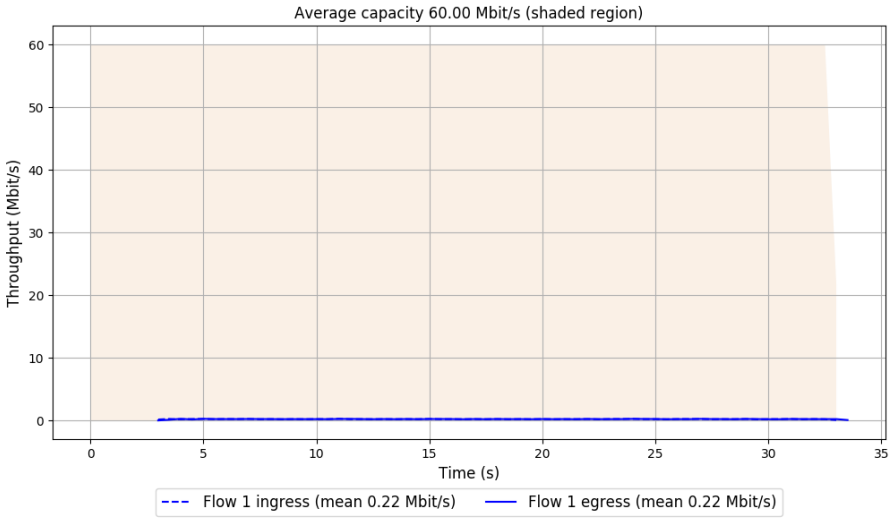


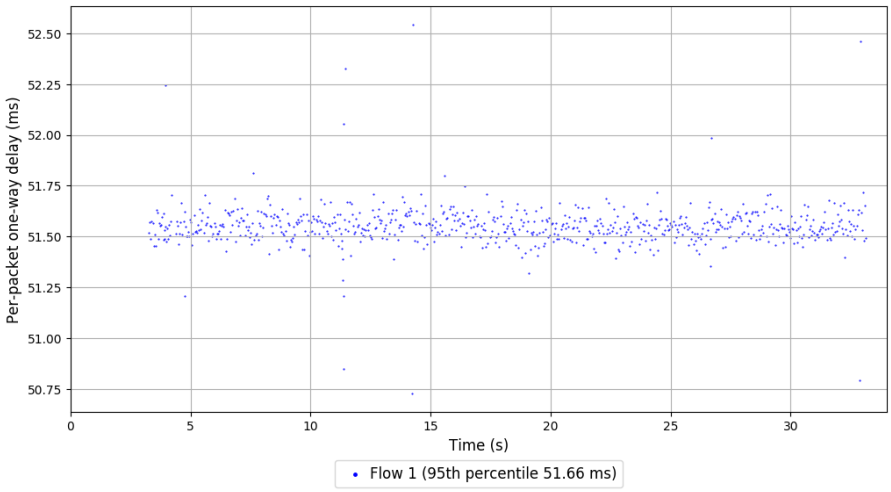
```
Run 3: Statistics of SCReAM

Start at: 2020-04-16 08:41:48
End at: 2020-04-16 08:42:18

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.22 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 51.665 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.665 ms
Loss rate: 0.13%
```

Run 3: Report of SCReAM — Data Link



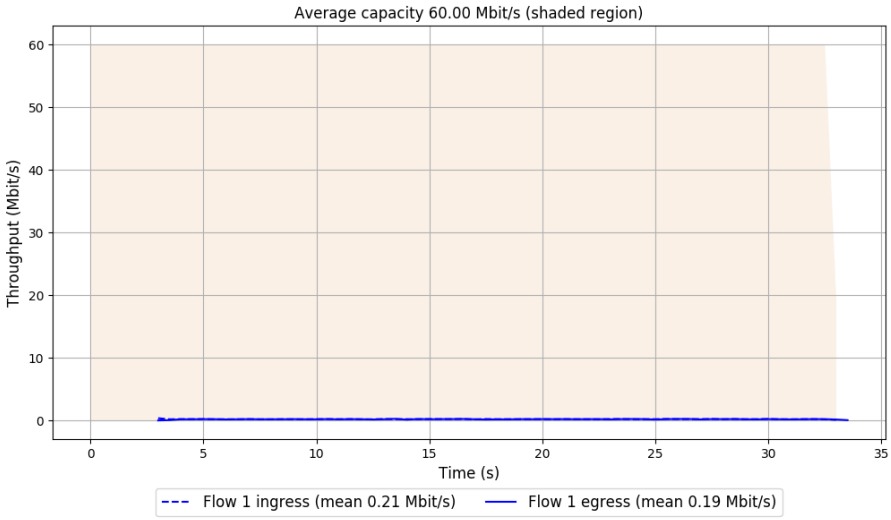


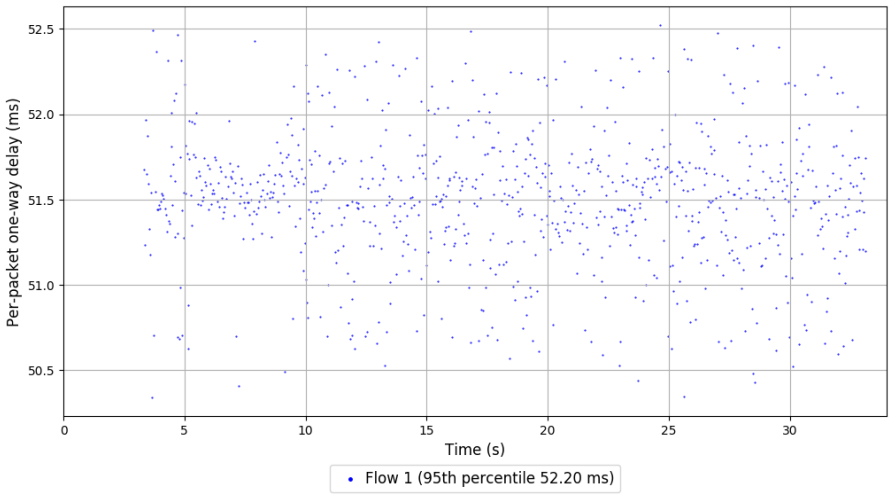
```
Run 1: Statistics of Sprout

Start at: 2020-04-16 08:19:38
End at: 2020-04-16 08:20:08

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.19 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.201 ms
Loss rate: 7.21%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 52.201 ms
Loss rate: 7.21%
```

Run 1: Report of Sprout — Data Link



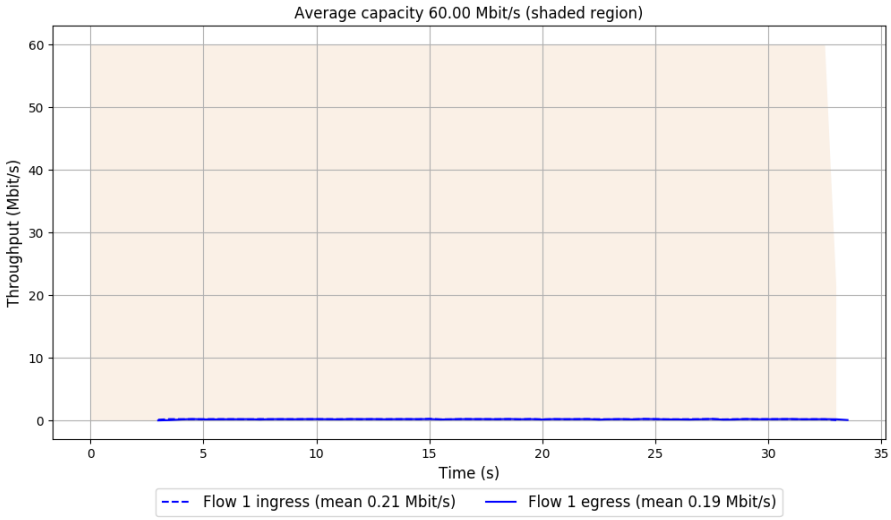


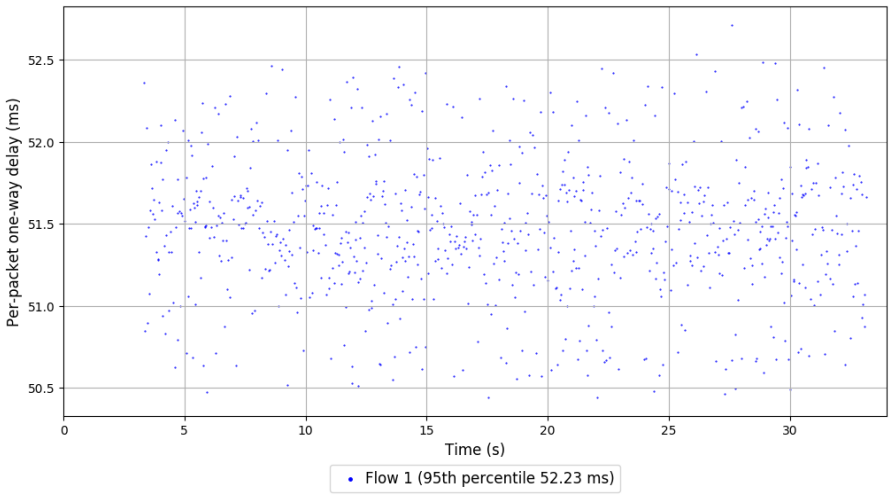
```
Run 2: Statistics of Sprout

Start at: 2020-04-16 08:33:59
End at: 2020-04-16 08:34:29

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.19 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.227 ms
Loss rate: 6.60%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 52.227 ms
Loss rate: 6.60%
```

Run 2: Report of Sprout — Data Link



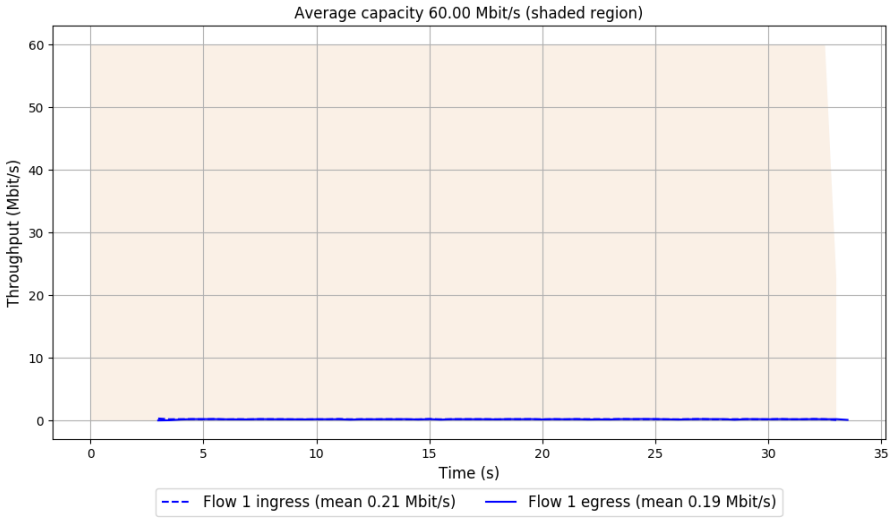


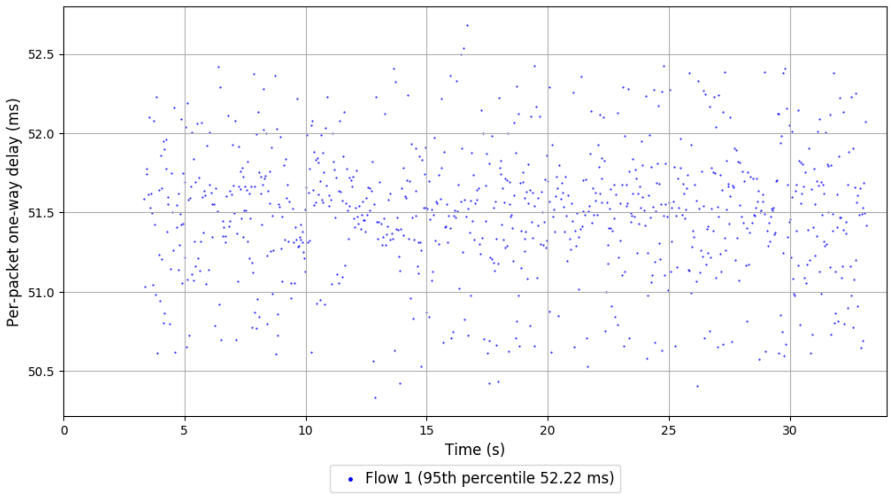
```
Run 3: Statistics of Sprout

Start at: 2020-04-16 08:48:20
End at: 2020-04-16 08:48:50

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.19 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.219 ms
Loss rate: 9.19%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 52.219 ms
Loss rate: 9.19%
```

Run 3: Report of Sprout — Data Link



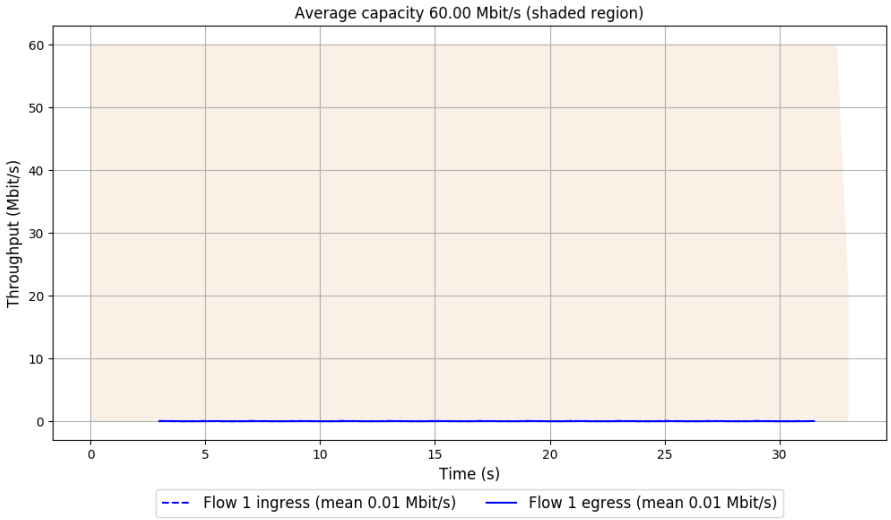


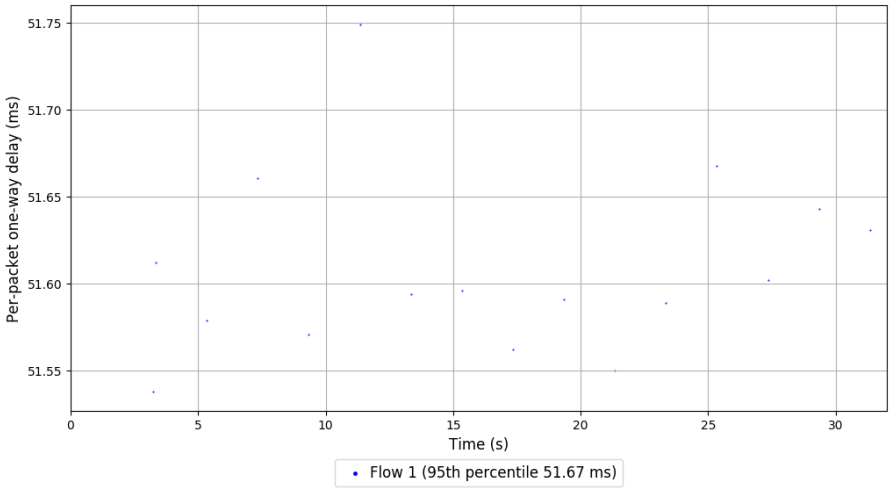
```
Run 1: Statistics of TaoVA-100x

Start at: 2020-04-16 08:23:13
End at: 2020-04-16 08:23:43

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.668 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.668 ms
Loss rate: 51.91%
```

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



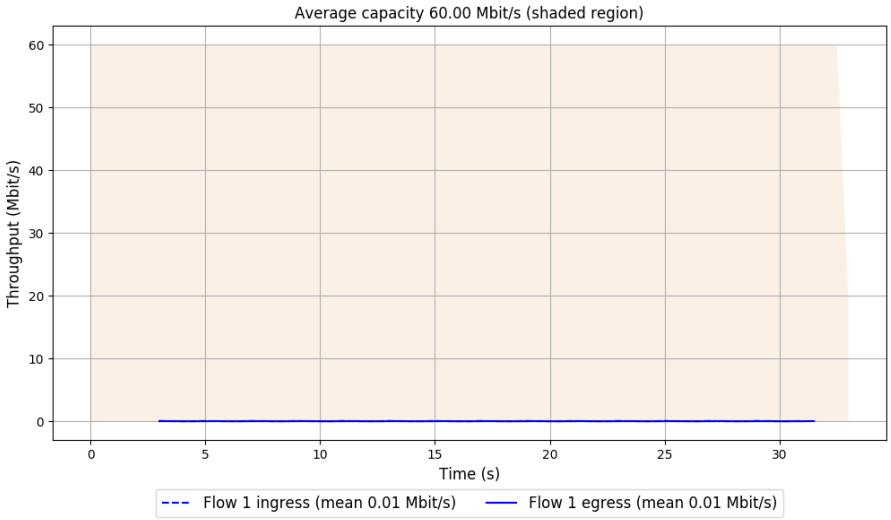


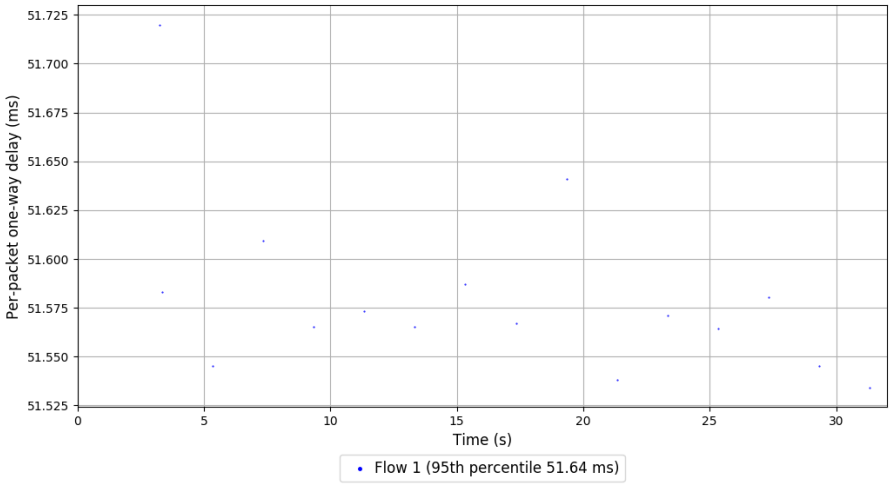
```
Run 2: Statistics of TaoVA-100x

Start at: 2020-04-16 08:37:34
End at: 2020-04-16 08:38:04

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.641 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.641 ms
Loss rate: 51.91%
```

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



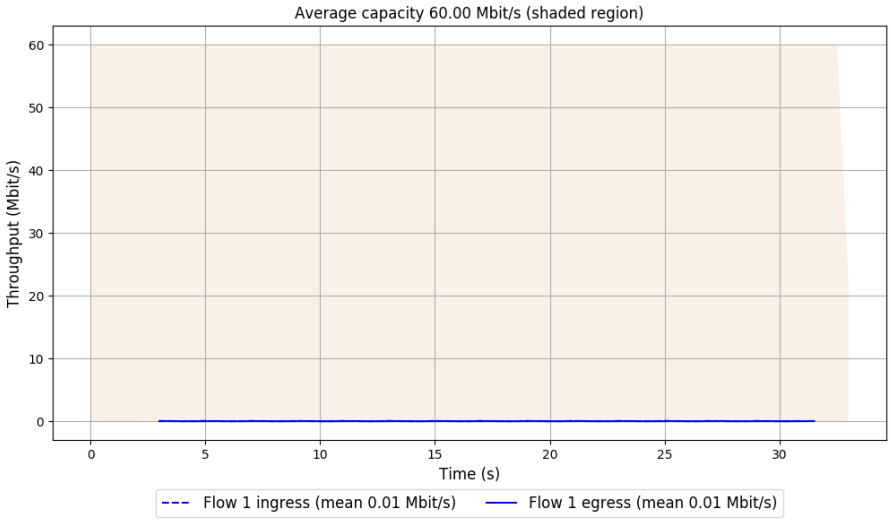


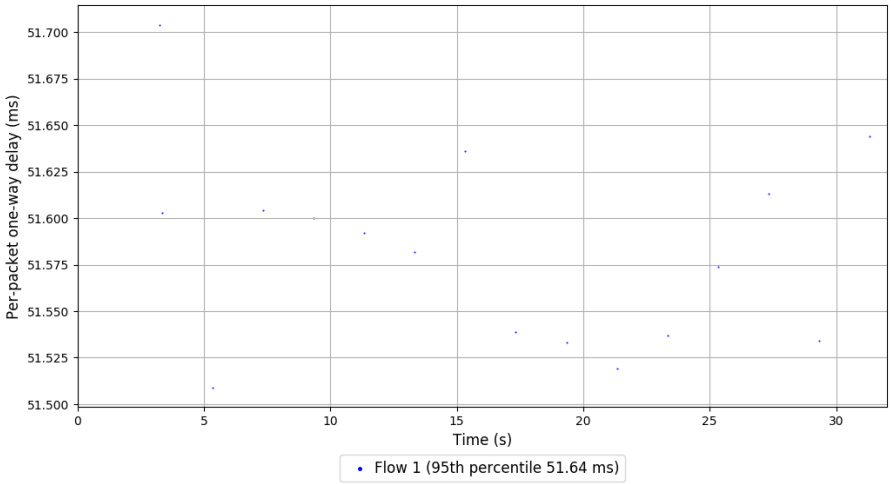
```
Run 3: Statistics of TaoVA-100x

Start at: 2020-04-16 08:51:55
End at: 2020-04-16 08:52:25

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.01 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 51.91%
```

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



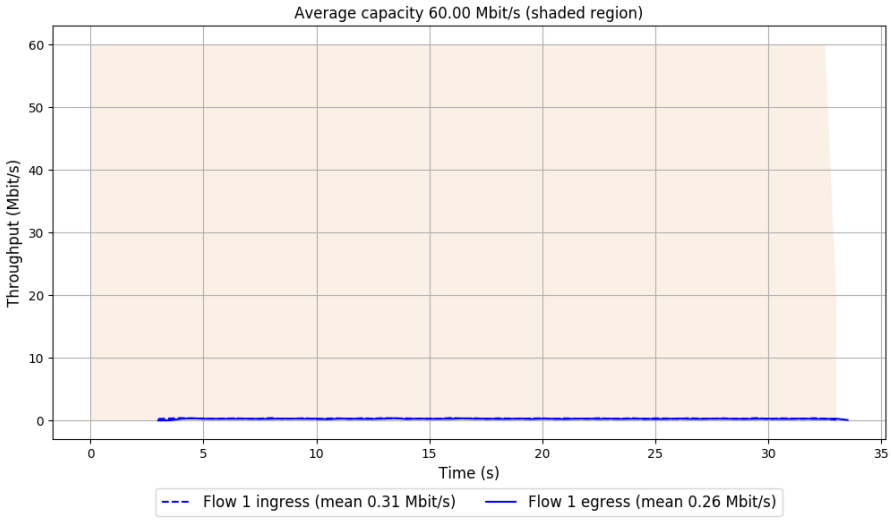


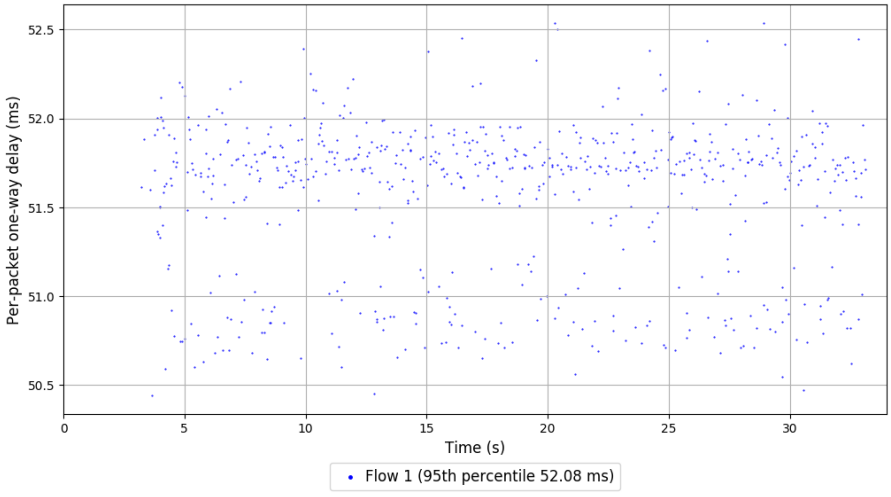
```
Run 1: Statistics of TCP Vegas

Start at: 2020-04-16 08:16:40
End at: 2020-04-16 08:17:10

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.26 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 52.083 ms
Loss rate: 14.17%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 52.083 ms
Loss rate: 14.17%
```

Run 1: Report of TCP Vegas — Data Link



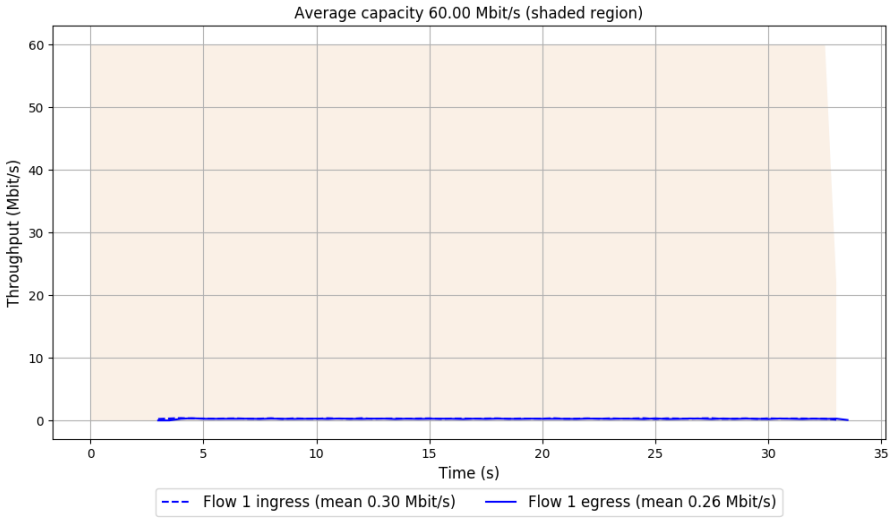


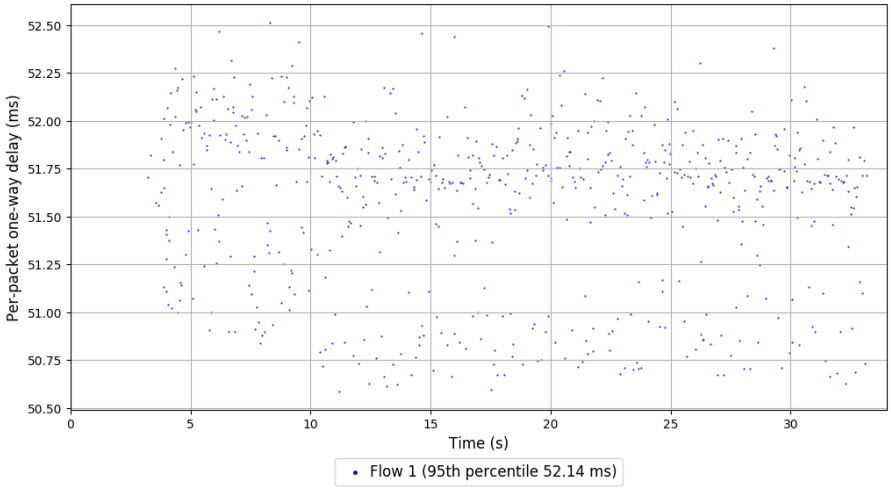
```
Run 2: Statistics of TCP Vegas

Start at: 2020-04-16 08:31:01
End at: 2020-04-16 08:31:31

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.26 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 13.53%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 13.53%
```

Run 2: Report of TCP Vegas — Data Link



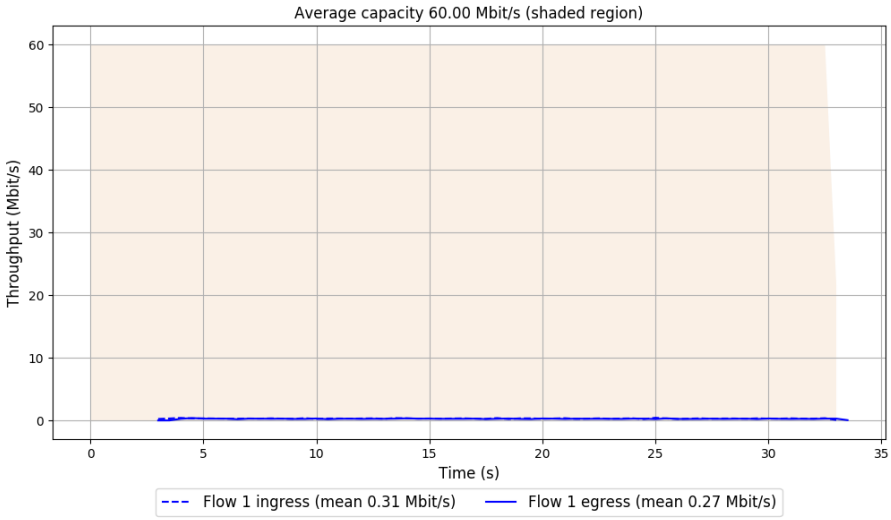


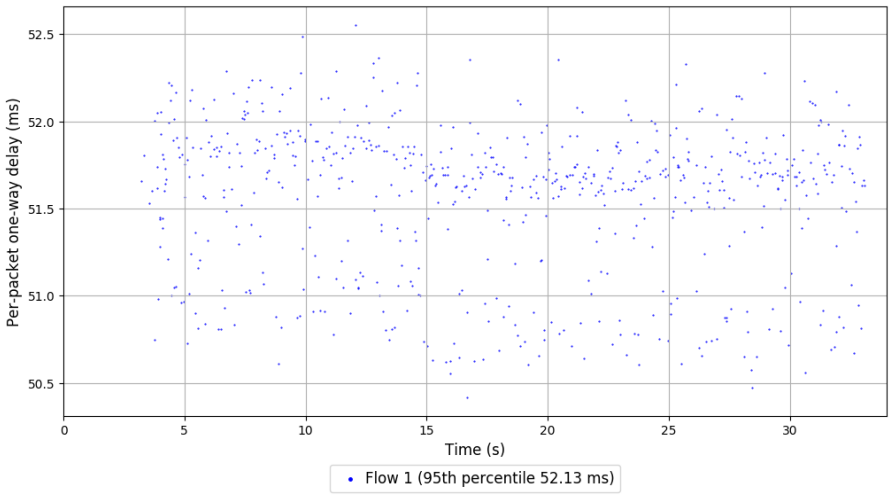
```
Run 3: Statistics of TCP Vegas

Start at: 2020-04-16 08:45:22
End at: 2020-04-16 08:45:52

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.27 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 52.132 ms
Loss rate: 13.67%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 52.132 ms
Loss rate: 13.67%
```

Run 3: Report of TCP Vegas — Data Link



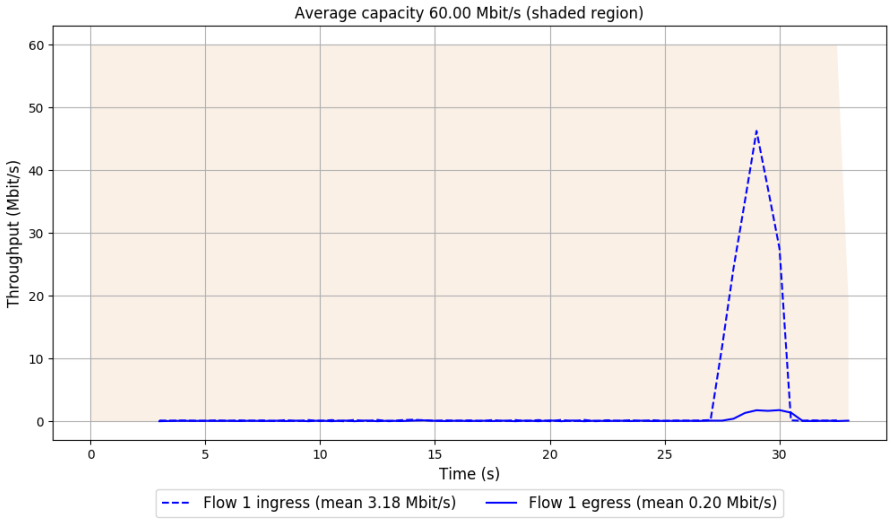


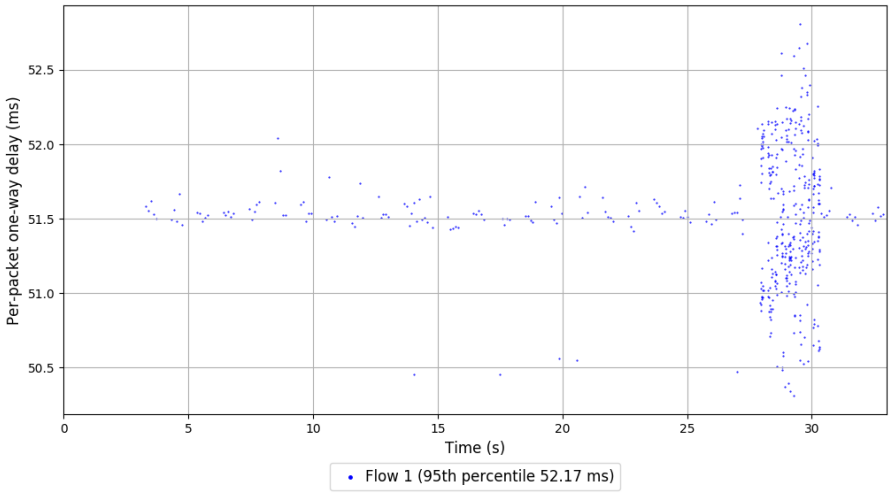
```
Run 1: Statistics of Verus

Start at: 2020-04-16 08:11:54
End at: 2020-04-16 08:12:24

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.20 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 52.171 ms
Loss rate: 93.84%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 52.171 ms
Loss rate: 93.84%
```

Run 1: Report of Verus — Data Link



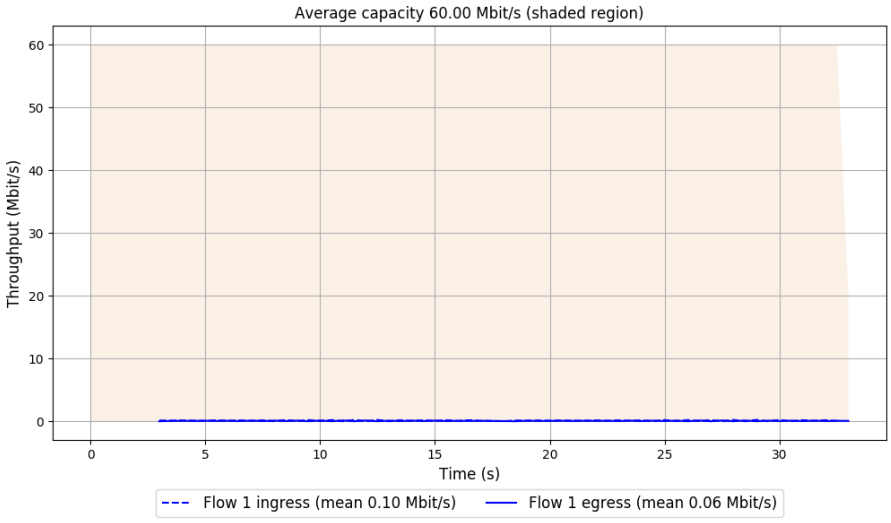


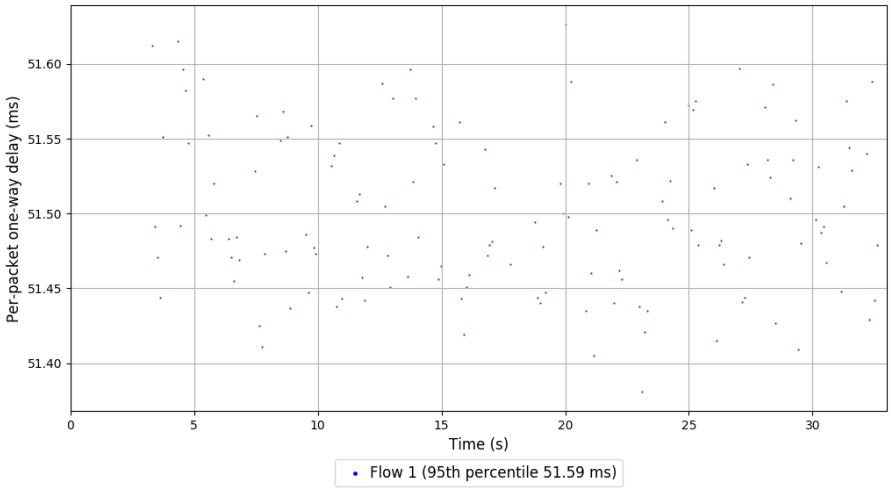
```
Run 2: Statistics of Verus

Start at: 2020-04-16 08:26:15
End at: 2020-04-16 08:26:45

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.06 Mbit/s (0.1% utilization)
95th percentile per-packet one-way delay: 51.588 ms
Loss rate: 44.49%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.588 ms
Loss rate: 44.49%
```

Run 2: Report of Verus — Data Link



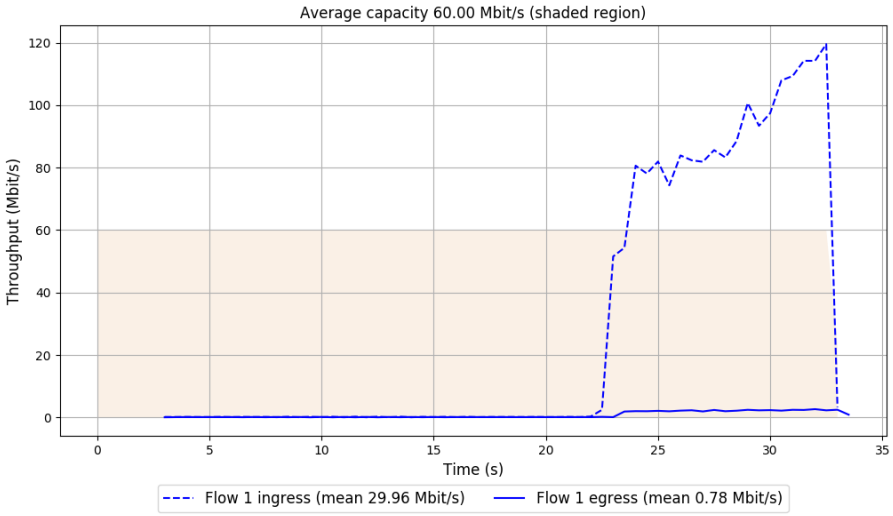


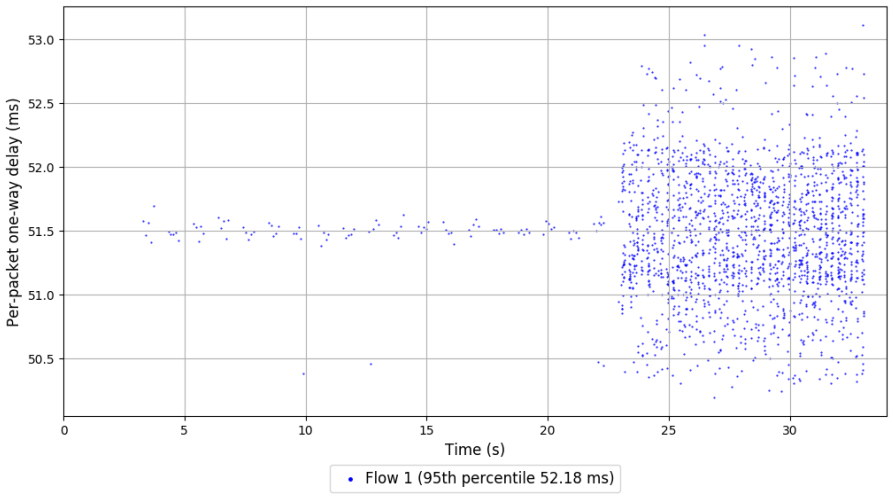
```
Run 3: Statistics of Verus

Start at: 2020-04-16 08:40:36
End at: 2020-04-16 08:41:06

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.78 Mbit/s (1.3% utilization)
95th percentile per-packet one-way delay: 52.179 ms
Loss rate: 97.40%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 52.179 ms
Loss rate: 97.40%
```

Run 3: Report of Verus — Data Link



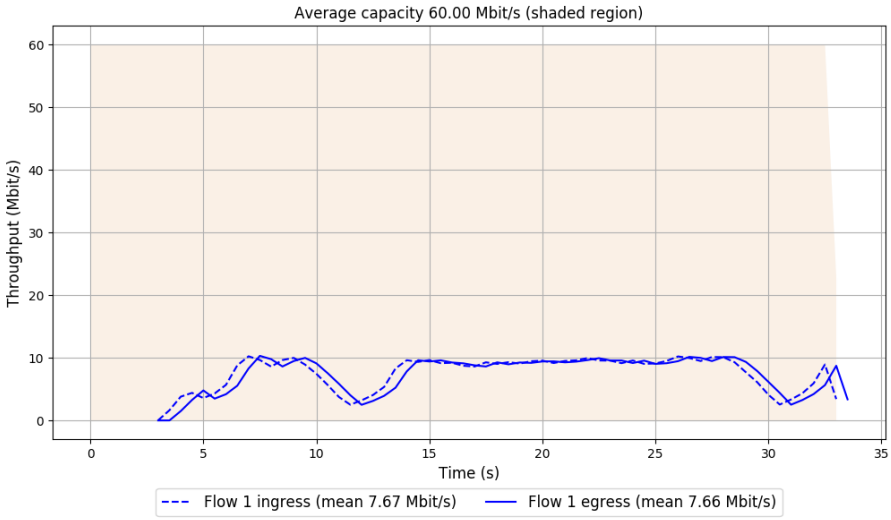


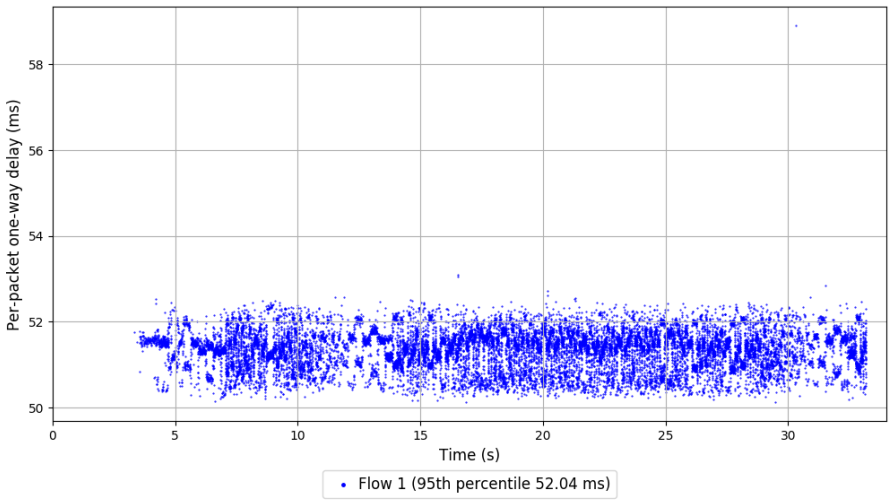
```
Run 1: Statistics of PCC-Vivace

Start at: 2020-04-16 08:17:15
End at: 2020-04-16 08:17:45

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.66 Mbit/s (12.8% utilization)
95th percentile per-packet one-way delay: 52.036 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 52.036 ms
Loss rate: 0.30%
```

Run 1: Report of PCC-Vivace — Data Link



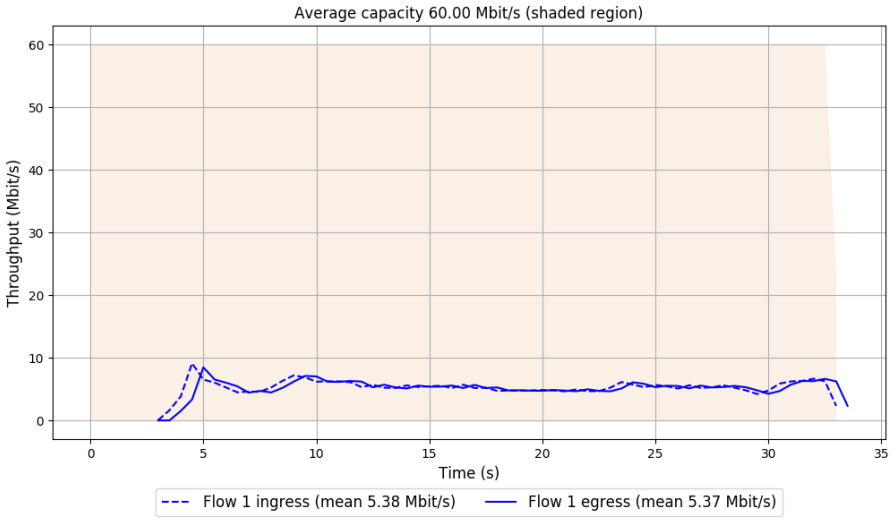


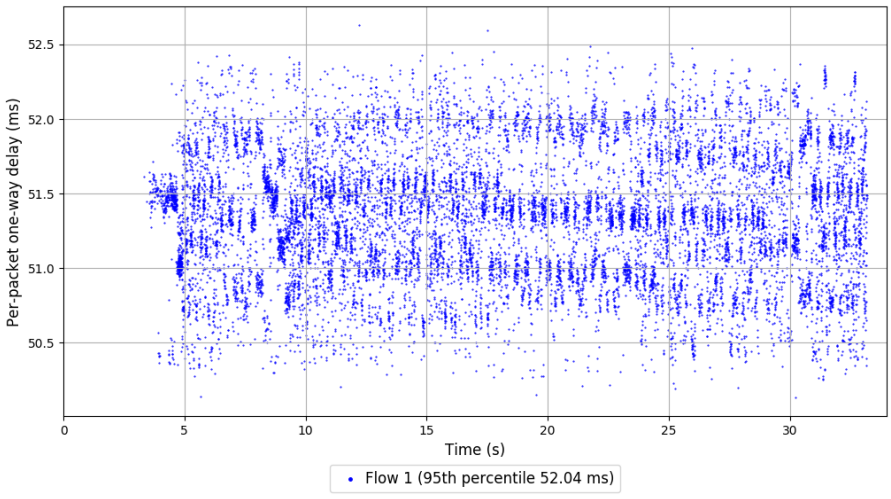
```
Run 2: Statistics of PCC-Vivace

Start at: 2020-04-16 08:31:36
End at: 2020-04-16 08:32:06

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 5.37 Mbit/s (8.9% utilization)
95th percentile per-packet one-way delay: 52.041 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 52.041 ms
Loss rate: 0.44%
```

Run 2: Report of PCC-Vivace — Data Link



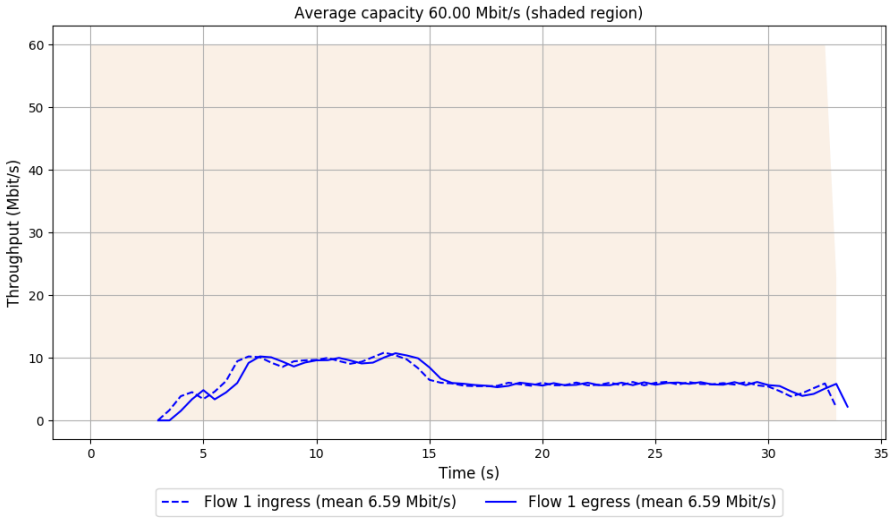


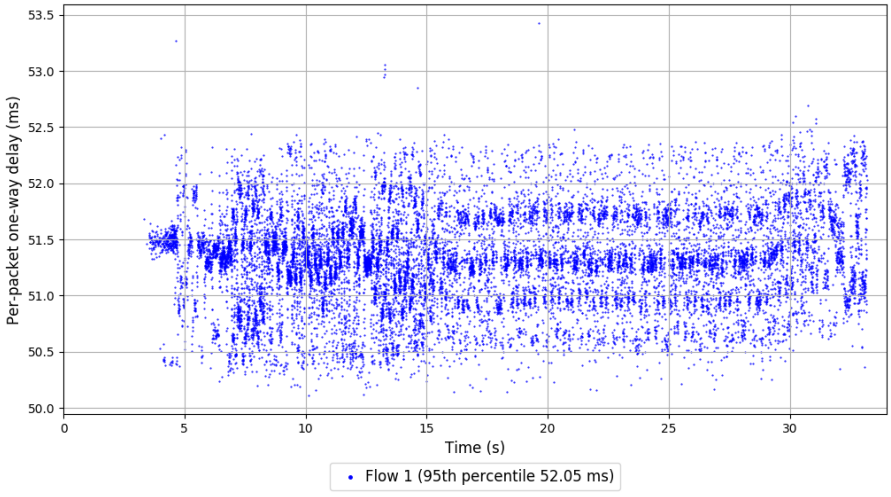
```
Run 3: Statistics of PCC-Vivace

Start at: 2020-04-16 08:45:57
End at: 2020-04-16 08:46:27

# Below is generated by plot.py at 2020-04-16 08:58:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 6.59 Mbit/s (11.0% utilization)
95th percentile per-packet one-way delay: 52.048 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 52.048 ms
Loss rate: 0.22%
```

Run 3: Report of PCC-Vivace — Data Link

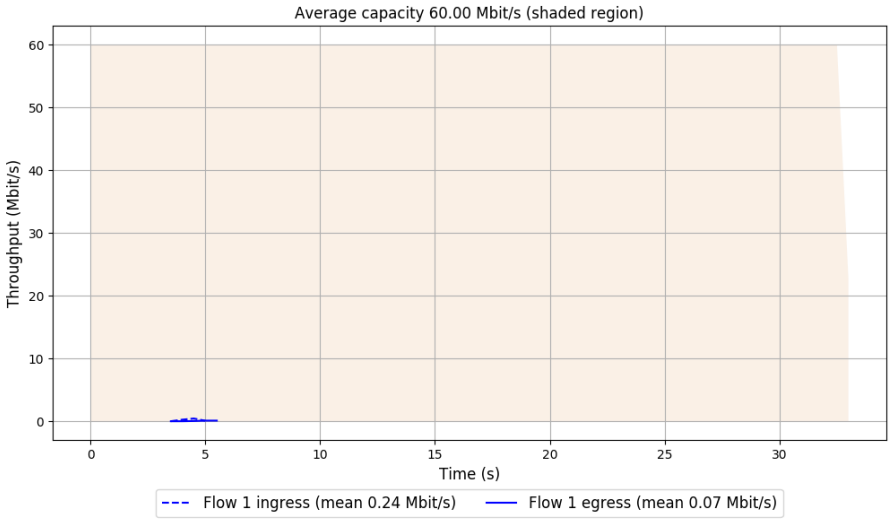


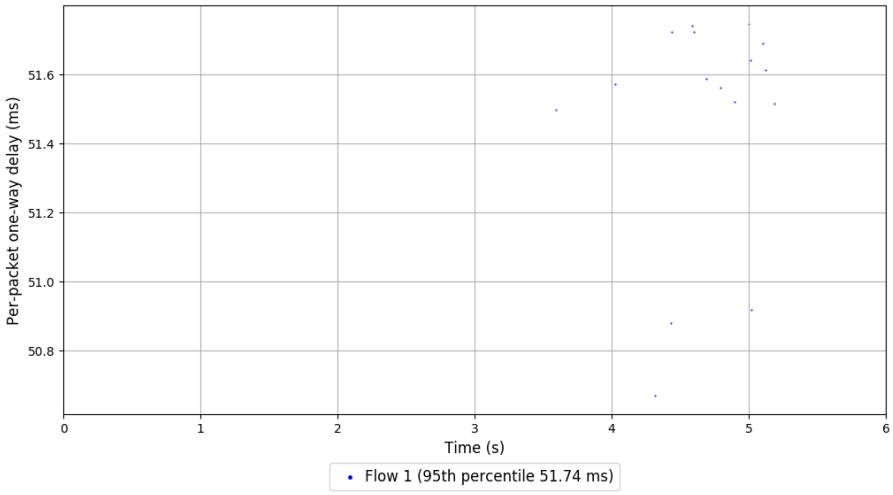


```
Run 1: Statistics of WebRTC media

Start at: 2020-04-16 08:21:25
End at: 2020-04-16 08:21:55
```

Run 1: Report of WebRTC media — Data Link

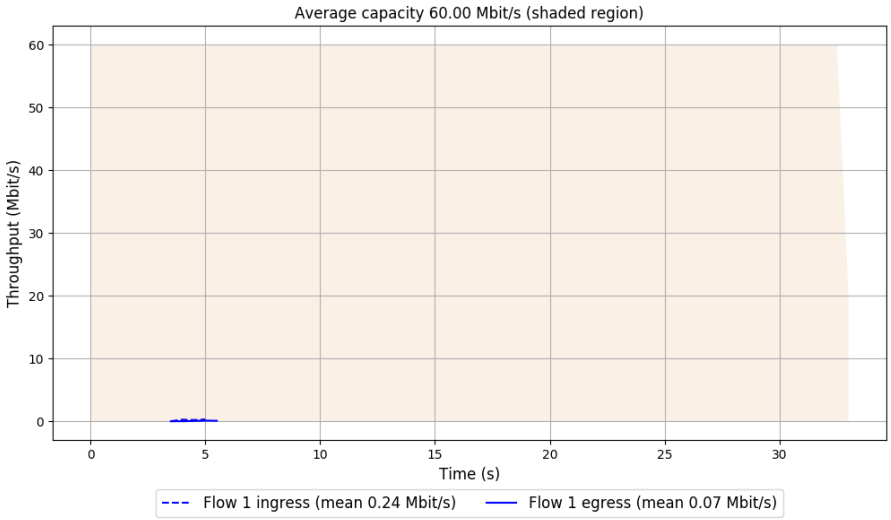


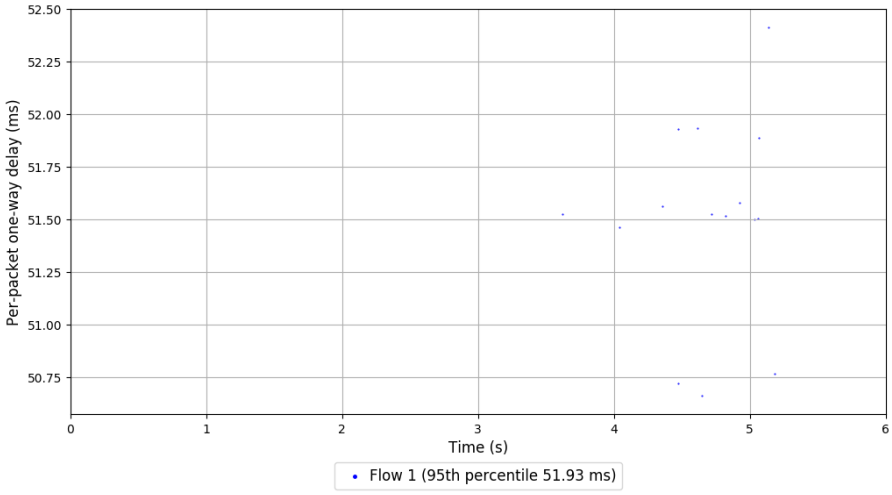


```
Run 2: Statistics of WebRTC media

Start at: 2020-04-16 08:35:46
End at: 2020-04-16 08:36:16
```

Run 2: Report of WebRTC media — Data Link





```
Run 3: Statistics of WebRTC media

Start at: 2020-04-16 08:50:07
End at: 2020-04-16 08:50:37
```

Run 3: Report of WebRTC media — Data Link