Pantheon Report

Generated at 2020-04-16 08:59:25 (UTC).

Tested in mahimahi: `mm-delay 10 mm-link 60mbps.trace 60mbps.trace --uplink-queue=droptail --uplink-queue-args=packets=1 --downlink-queue=droptail --downlink-queue-args=packets=1`

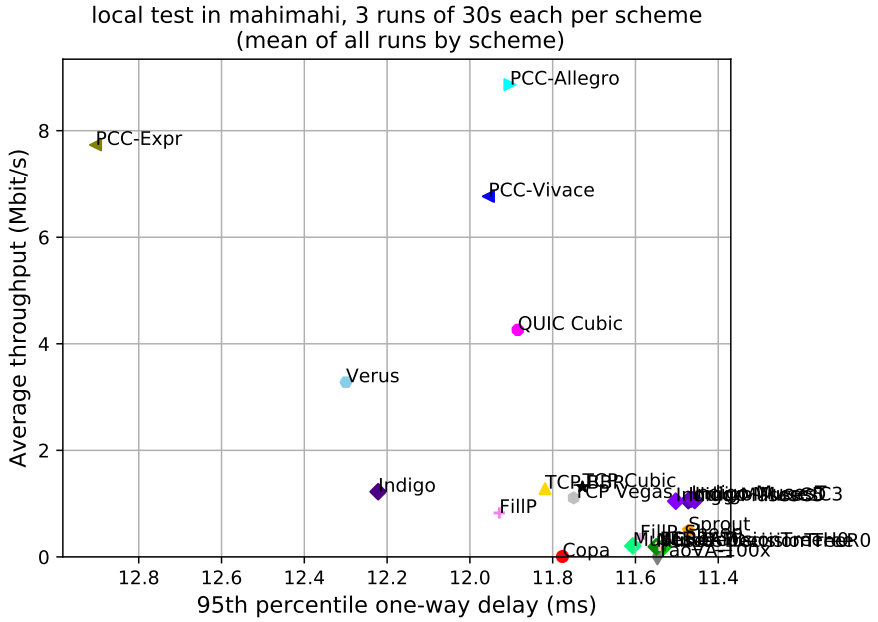
Repeated the test of 24 congestion control schemes 3 times.

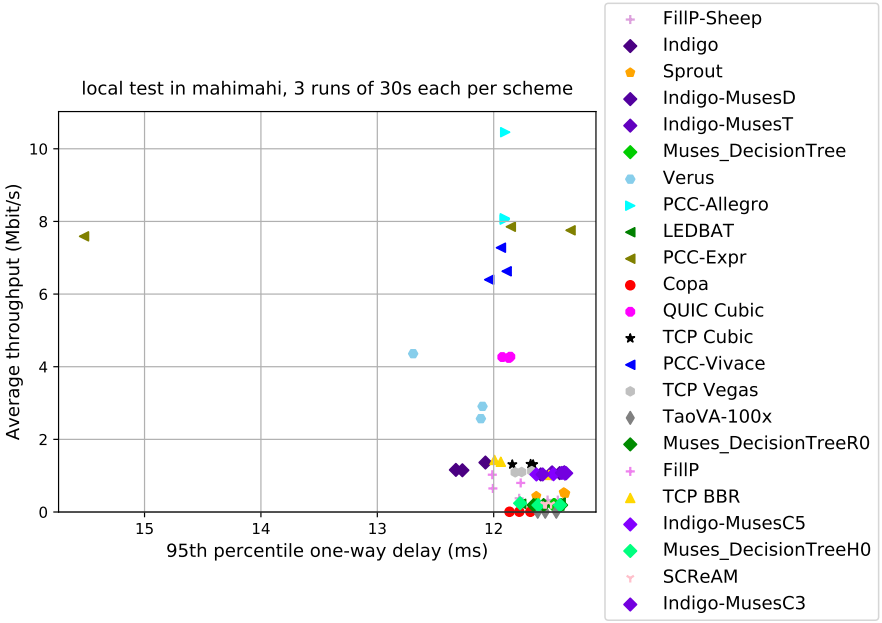
Each test lasted for 30 seconds running 1 flow.

```
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)
PCC-Allegro
PCC-Expr
PCC-Vivace
QUIC Cubic
Verus
Indigo
FillP
Copa
Sprout
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
2
4
6
8
12.8
12.6
12.4
12.2
12.0
11.8
11.6
11.4


local test in mahimahi, 3 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
2
4
6
8
10
15
14
13
12
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

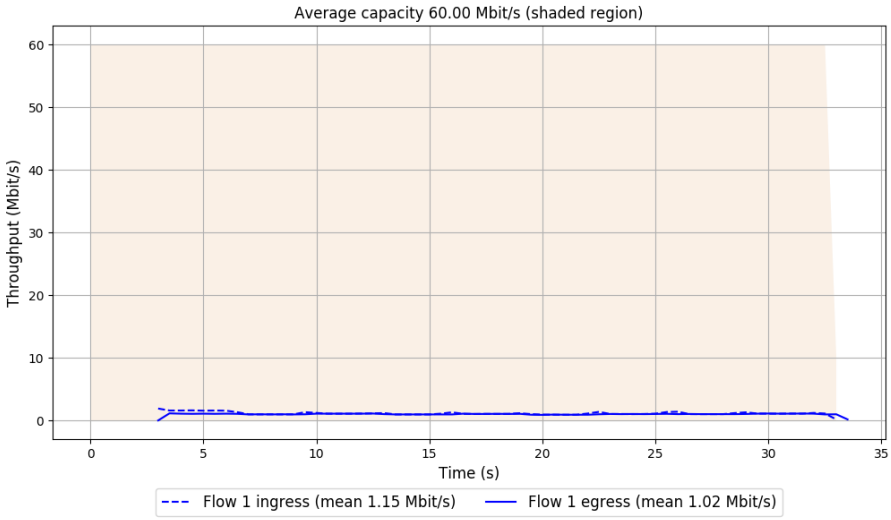
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	1.28	11.82	18.82
Copa	3	0.01	11.78	89.31
TCP Cubic	3	1.31	11.73	8.57
FillP	3	0.83	11.93	46.05
FillP-Sheep	3	0.35	11.59	30.25
Indigo	3	1.22	12.22	95.61
Indigo-MusesC3	3	1.06	11.46	19.61
Indigo-MusesC5	3	1.04	11.50	17.39
Indigo-MusesD	3	1.06	11.47	44.94
Indigo-MusesT	3	1.08	11.46	23.82
LEDBAT	3	0.22	11.54	48.83
Muses_DecisionTree	3	0.19	11.53	34.00
Muses_DecisionTreeH0	3	0.21	11.61	52.83
Muses_DecisionTreeR0	3	0.19	11.55	33.73
PCC-Allegro	3	8.87	11.90	3.43
PCC-Expr	3	7.73	12.90	98.31
QUIC Cubic	3	4.26	11.88	8.17
SCReAM	3	0.22	11.54	0.00
Sprout	3	0.50	11.47	7.65
TaoVA-100x	3	0.01	11.55	51.91
TCP Vegas	3	1.11	11.75	9.77
Verus	3	3.28	12.30	98.31
PCC-Vivace	3	6.77	11.96	0.97
WebRTC media	0	N/A	N/A	N/A

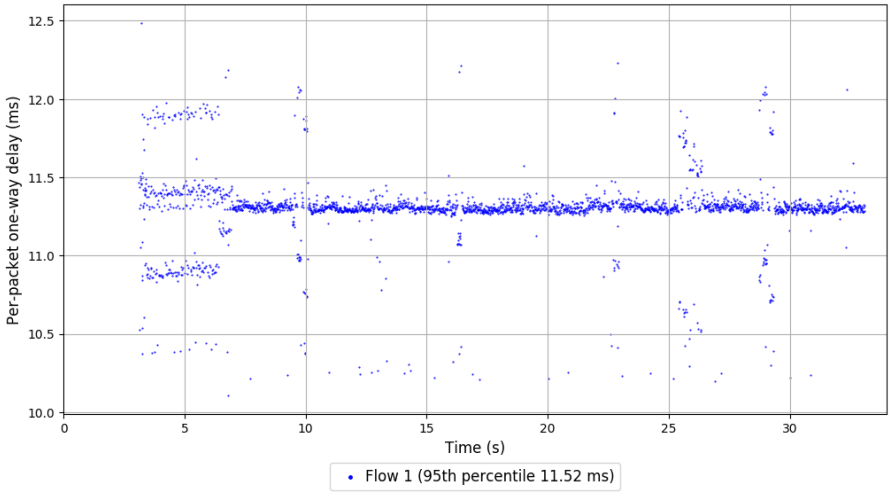
```
Run 1: Statistics of TCP BBR

Start at: 2020-04-16 08:23:21
End at: 2020-04-16 08:23:51

# Below is generated by plot.py at 2020-04-16 08:54:43
# 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: 11.523 ms
Loss rate: 10.95%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 11.523 ms
Loss rate: 10.95%
```

Run 1: Report of TCP BBR — Data Link



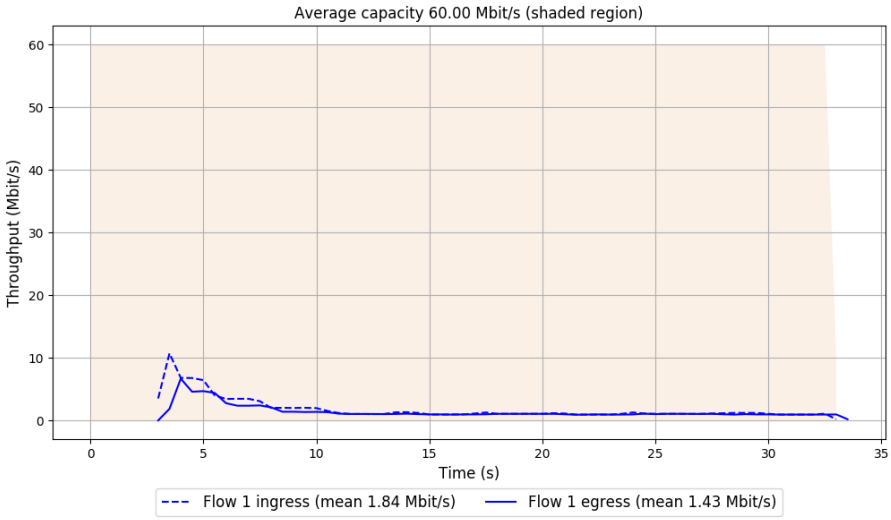


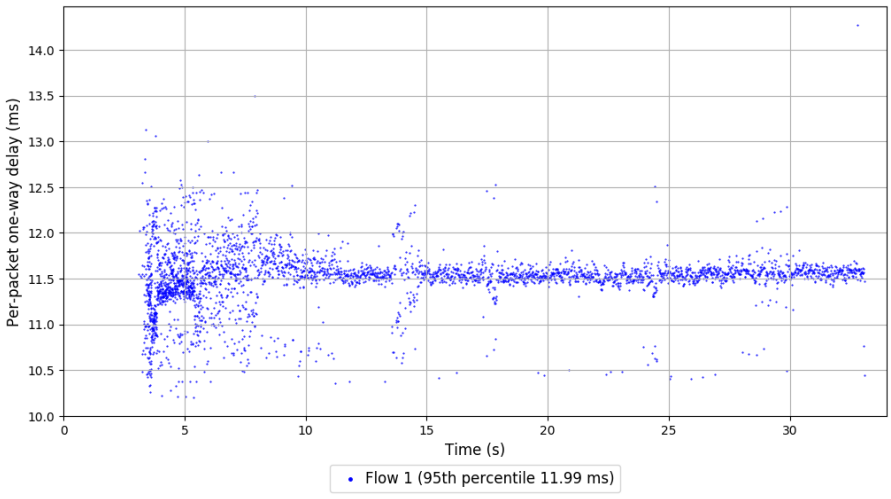
```
Run 2: Statistics of TCP BBR

Start at: 2020-04-16 08:37:44
End at: 2020-04-16 08:38:14

# Below is generated by plot.py at 2020-04-16 08:54:44
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.43 Mbit/s (2.4% utilization)
95th percentile per-packet one-way delay: 11.993 ms
Loss rate: 22.04%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 11.993 ms
Loss rate: 22.04%
```

Run 2: Report of TCP BBR — Data Link



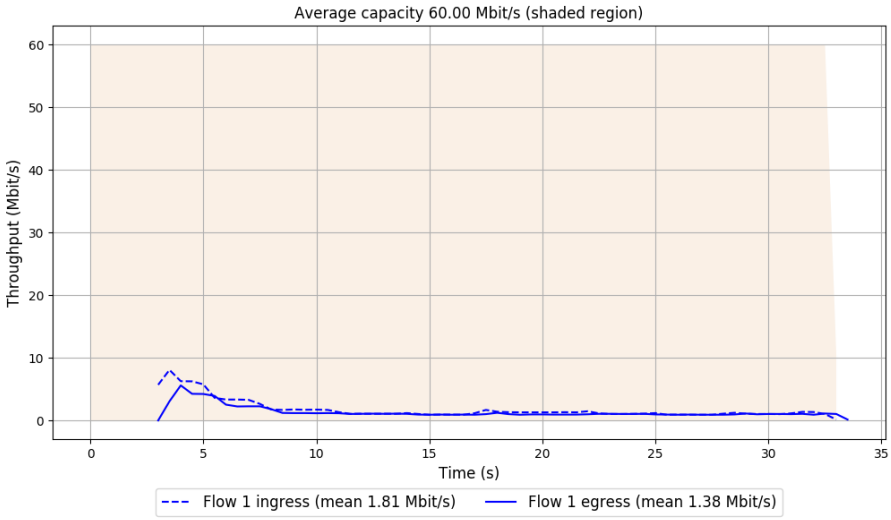


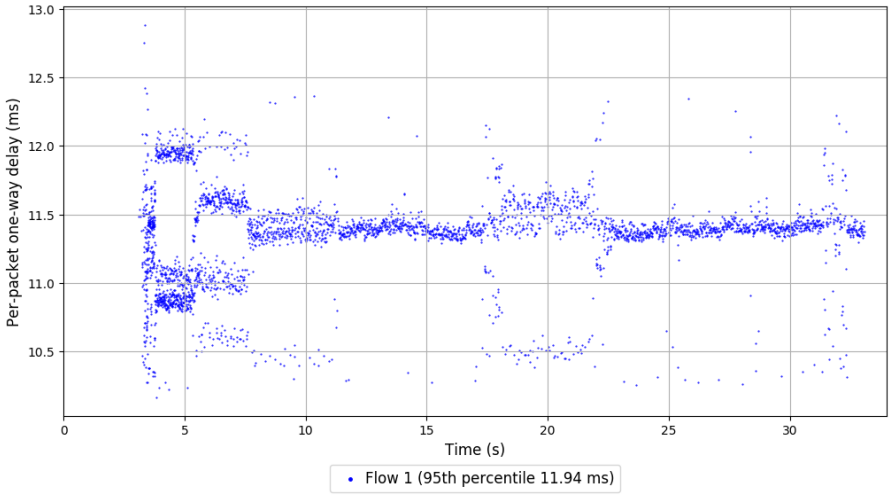
```
Run 3: Statistics of TCP BBR

Start at: 2020-04-16 08:52:12
End at: 2020-04-16 08:52:42

# Below is generated by plot.py at 2020-04-16 08:54:45
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.38 Mbit/s (2.3% utilization)
95th percentile per-packet one-way delay: 11.939 ms
Loss rate: 23.48%
-- Flow 1:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 11.939 ms
Loss rate: 23.48%
```

Run 3: Report of TCP BBR — Data Link



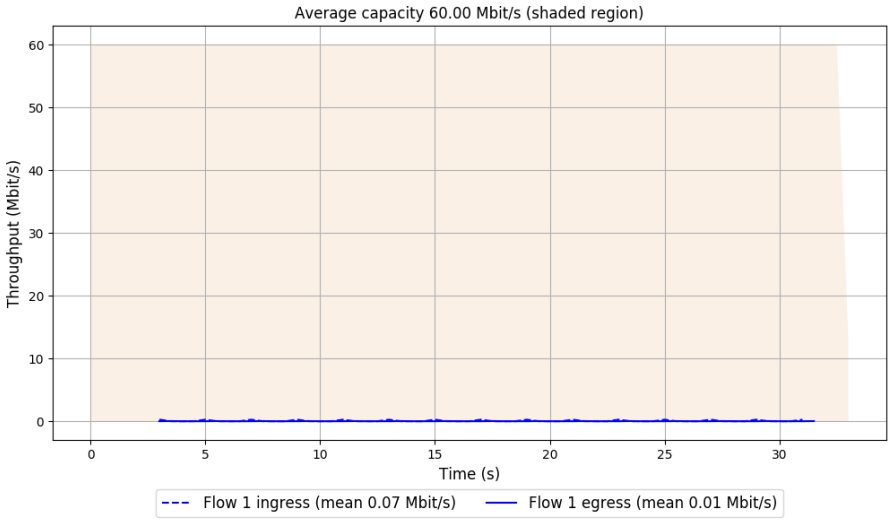


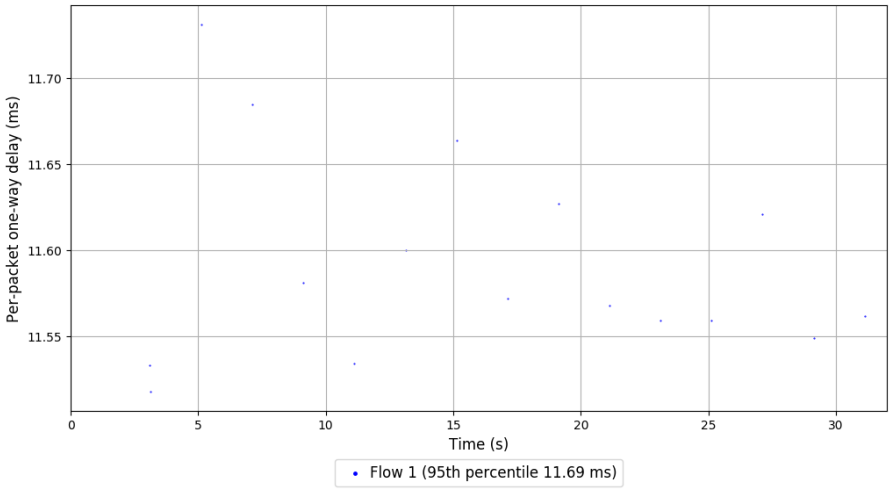
```
Run 1: Statistics of Copa

Start at: 2020-04-16 08:23:56
End at: 2020-04-16 08:24:27

# Below is generated by plot.py at 2020-04-16 08:54:45
# 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: 11.685 ms
Loss rate: 90.36%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.685 ms
Loss rate: 90.36%
```

Run 1: Report of Copa — Data Link



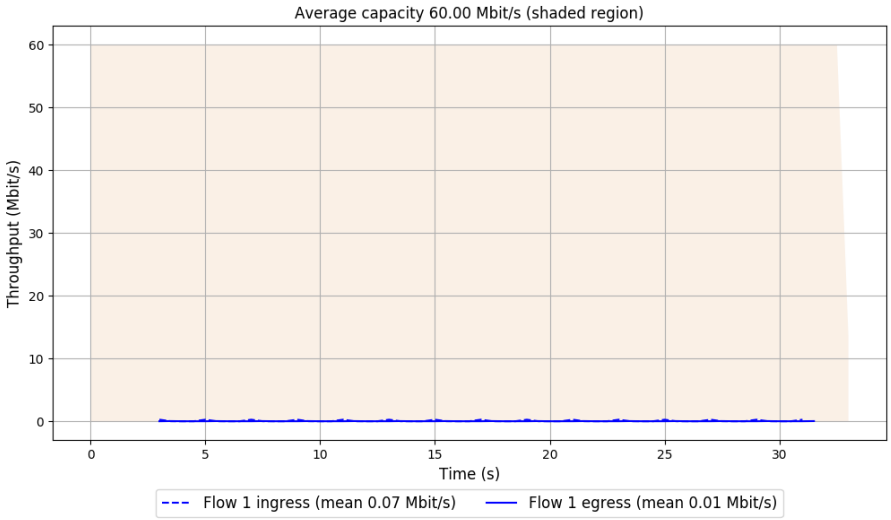


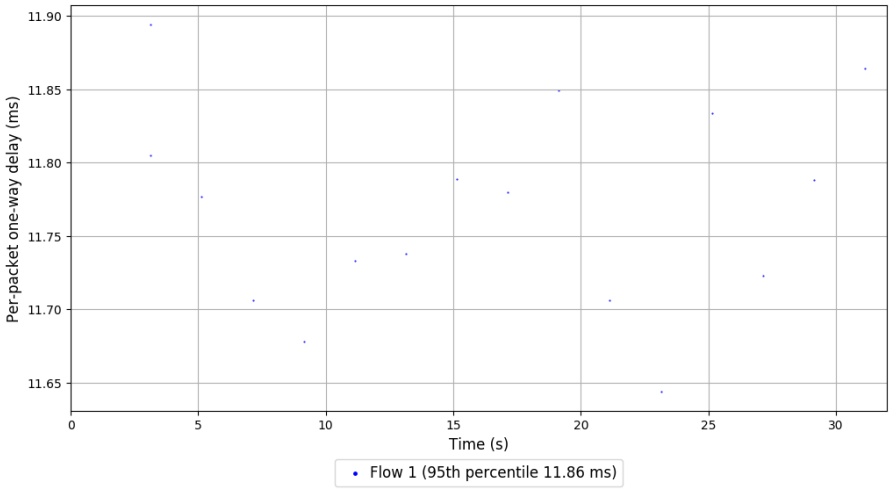
```
Run 2: Statistics of Copa

Start at: 2020-04-16 08:38:20
End at: 2020-04-16 08:38:50

# Below is generated by plot.py at 2020-04-16 08:54:45
# 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: 11.864 ms
Loss rate: 90.36%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.864 ms
Loss rate: 90.36%
```

Run 2: Report of Copa — Data Link



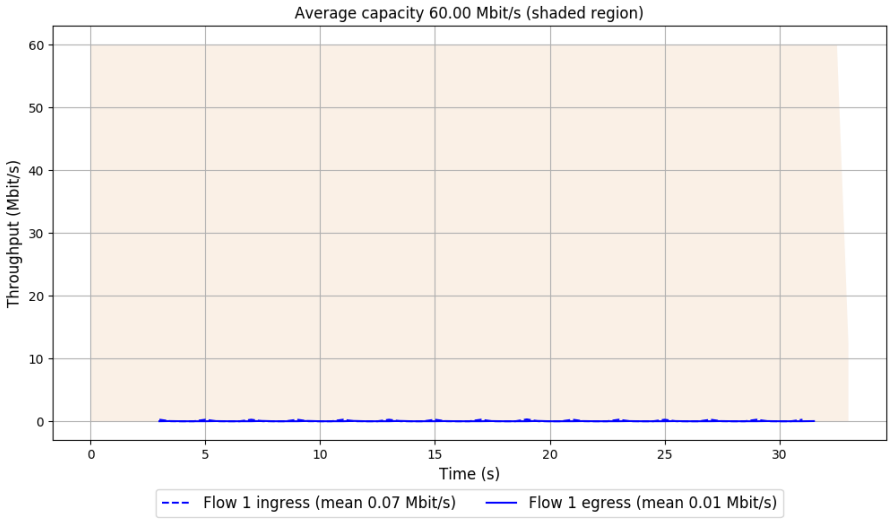


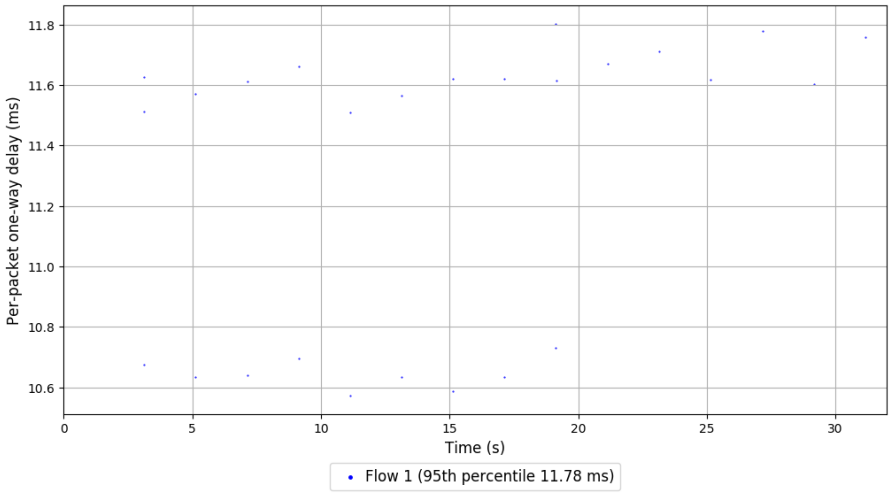
```
Run 3: Statistics of Copa

Start at: 2020-04-16 08:52:47
End at: 2020-04-16 08:53:17

# Below is generated by plot.py at 2020-04-16 08:54:45
# 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: 11.780 ms
Loss rate: 87.20%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.780 ms
Loss rate: 87.20%
```

Run 3: Report of Copa — Data Link



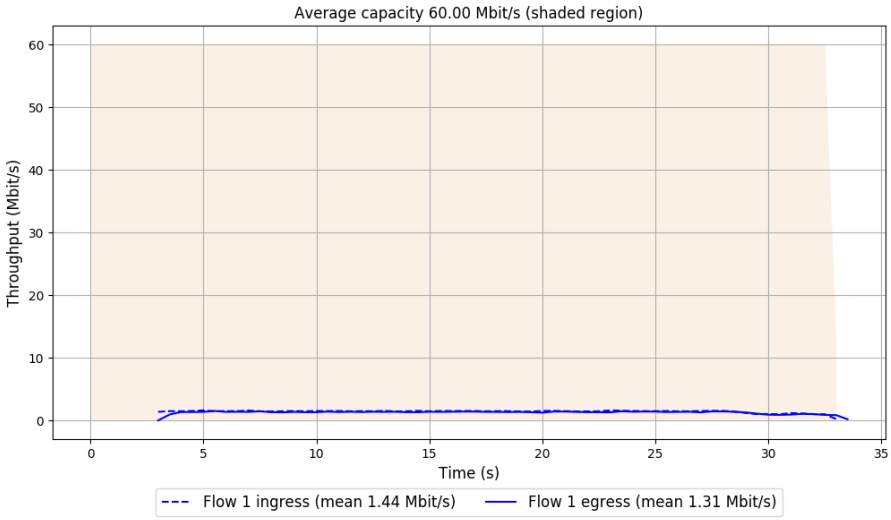


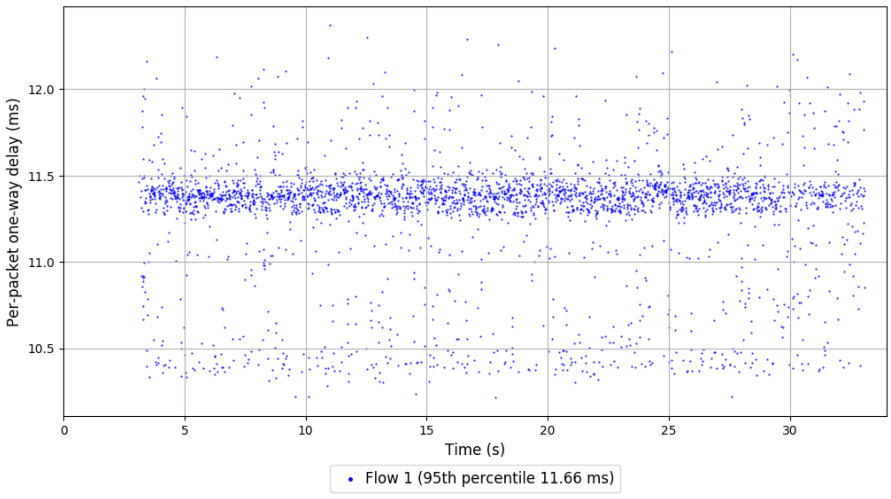
```
Run 1: Statistics of TCP Cubic

Start at: 2020-04-16 08:13:18
End at: 2020-04-16 08:13:48

# Below is generated by plot.py at 2020-04-16 08:54:45
# 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: 11.661 ms
Loss rate: 8.83%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 11.661 ms
Loss rate: 8.83%
```

Run 1: Report of TCP Cubic — Data Link



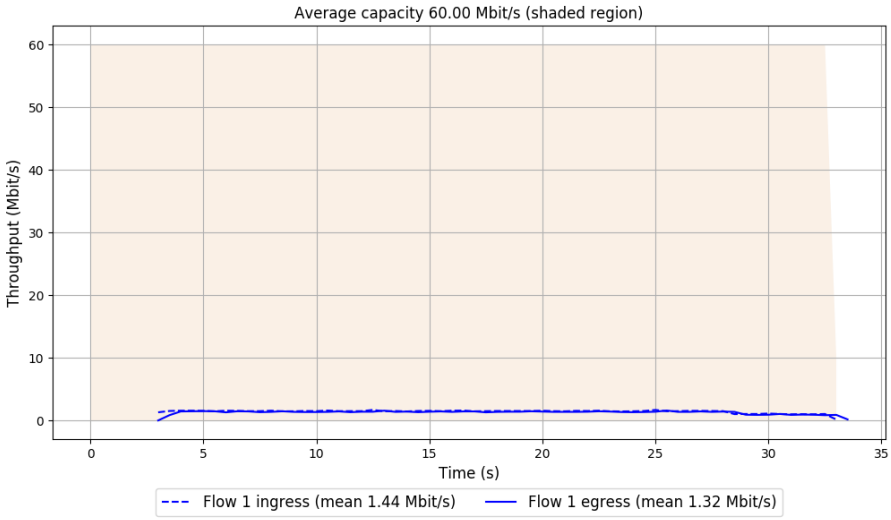


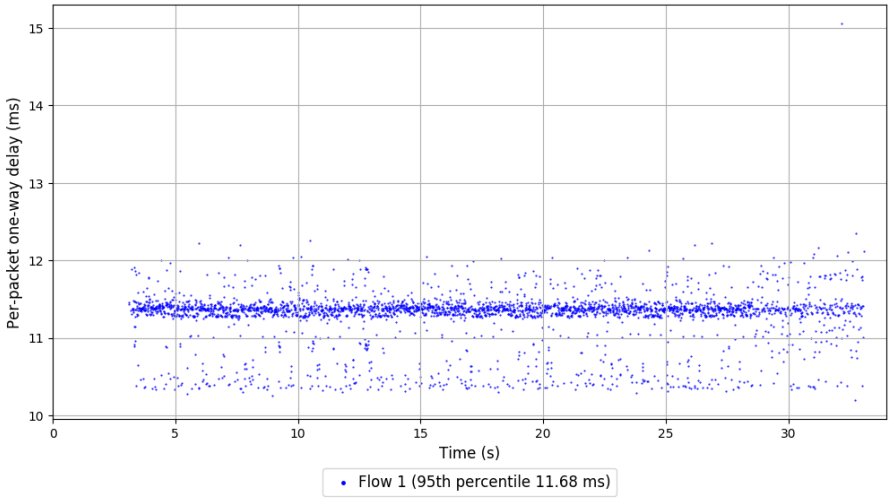
```
Run 2: Statistics of TCP Cubic

Start at: 2020-04-16 08:27:41
End at: 2020-04-16 08:28:11

# Below is generated by plot.py at 2020-04-16 08:54:45
# 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: 11.683 ms
Loss rate: 8.36%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 11.683 ms
Loss rate: 8.36%
```

Run 2: Report of TCP Cubic — Data Link



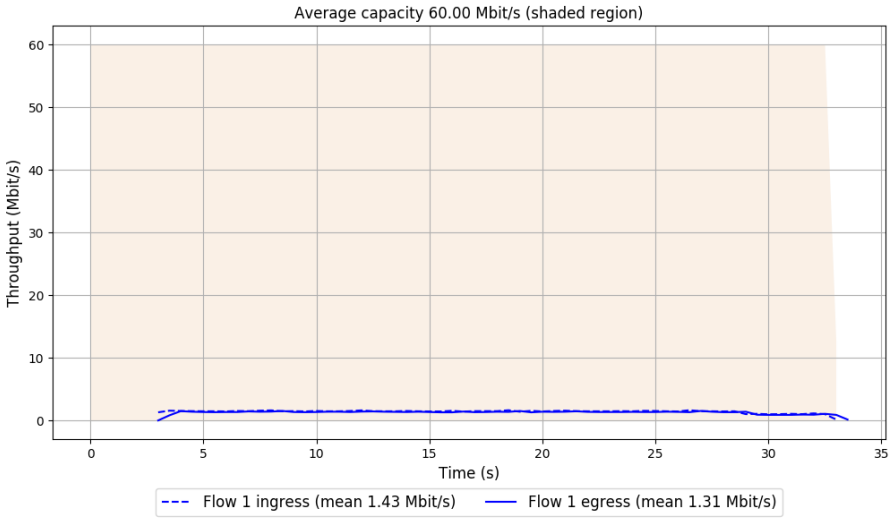


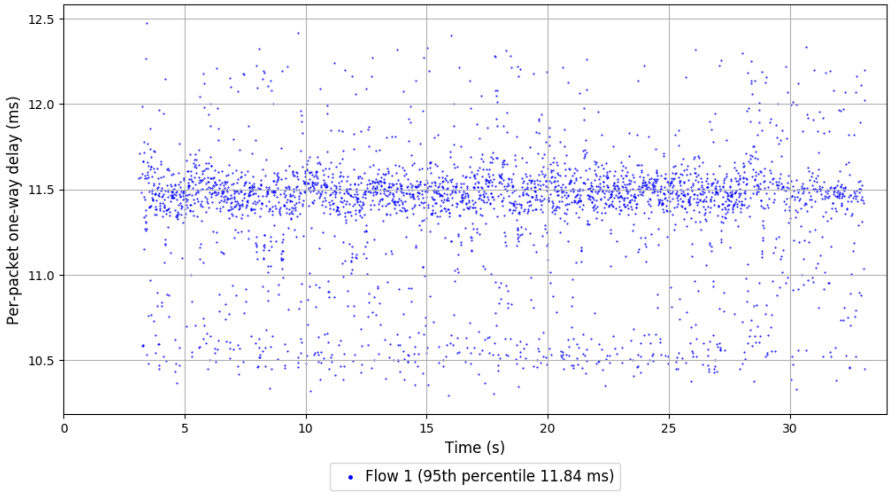
```
Run 3: Statistics of TCP Cubic

Start at: 2020-04-16 08:42:06
End at: 2020-04-16 08:42:36

# Below is generated by plot.py at 2020-04-16 08:54:59
# 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: 11.840 ms
Loss rate: 8.51%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 11.840 ms
Loss rate: 8.51%
```

Run 3: Report of TCP Cubic — Data Link



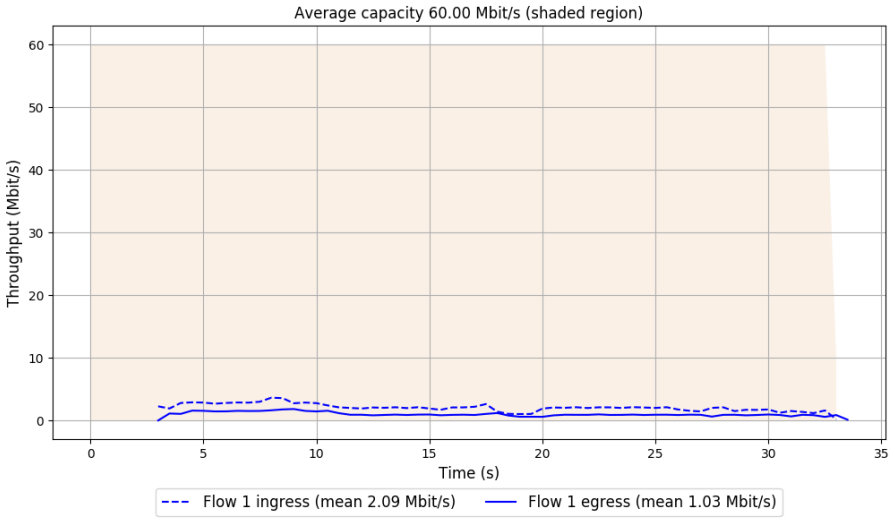


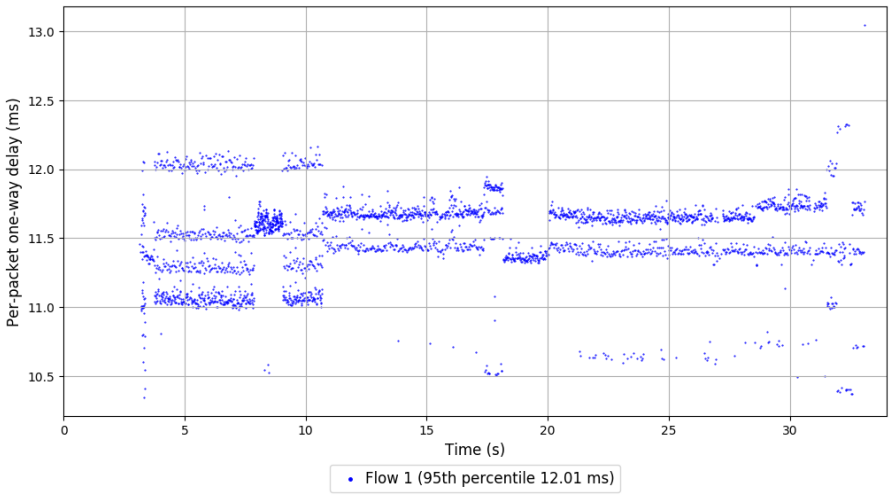
```
Run 1: Statistics of FillP

Start at: 2020-04-16 08:11:33
End at: 2020-04-16 08:12:03

# Below is generated by plot.py at 2020-04-16 08:55:04
# 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: 12.012 ms
Loss rate: 50.88%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 12.012 ms
Loss rate: 50.88%
```

Run 1: Report of FillP — Data Link



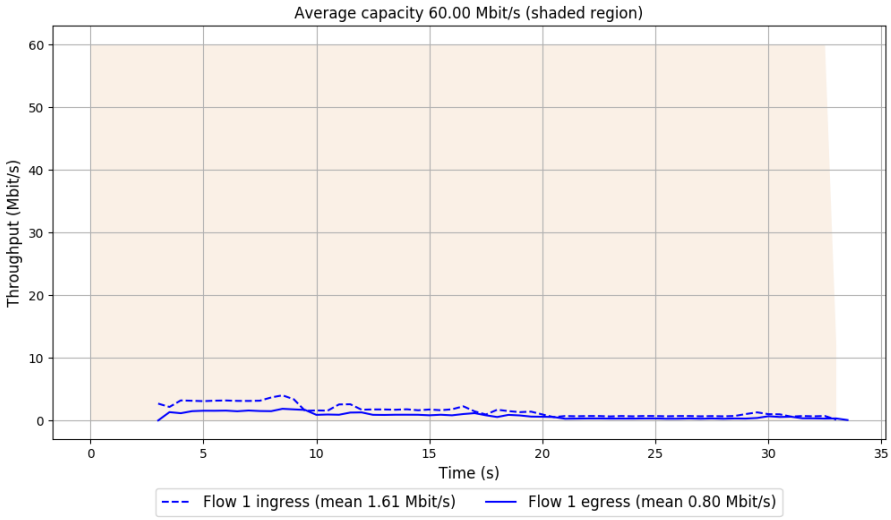


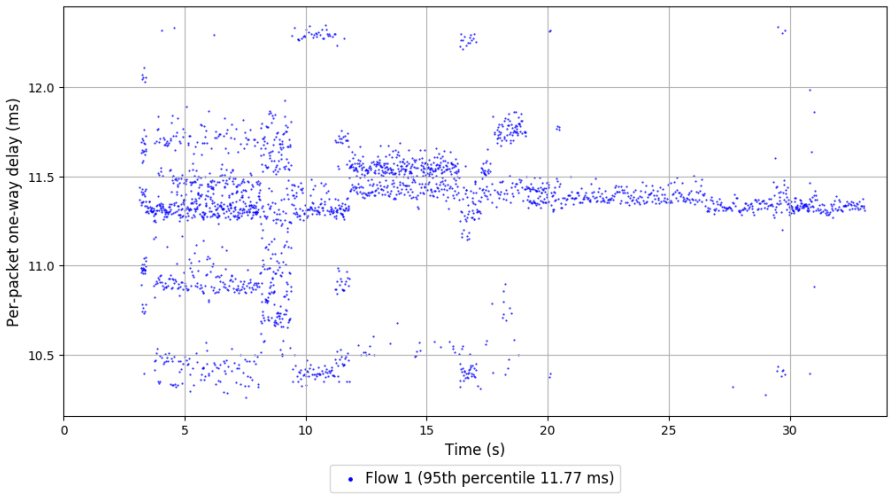
```
Run 2: Statistics of FillP

Start at: 2020-04-16 08:25:55
End at: 2020-04-16 08:26:25

# Below is generated by plot.py at 2020-04-16 08:55:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.80 Mbit/s (1.3% utilization)
95th percentile per-packet one-way delay: 11.768 ms
Loss rate: 50.31%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 11.768 ms
Loss rate: 50.31%
```

Run 2: Report of FillP — Data Link



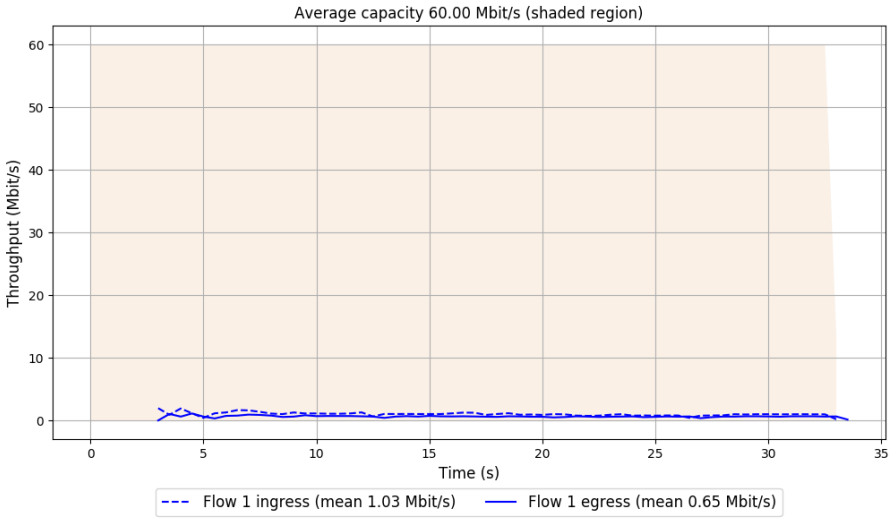


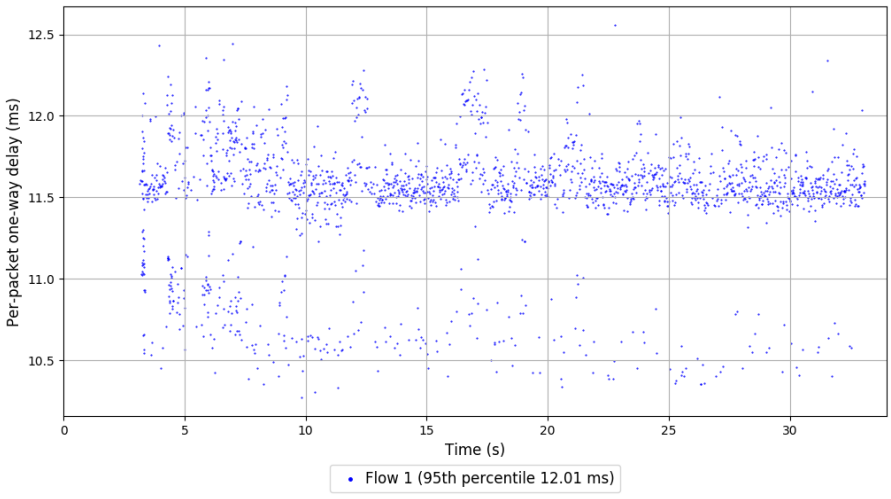
```
Run 3: Statistics of FillP

Start at: 2020-04-16 08:40:19
End at: 2020-04-16 08:40:49

# Below is generated by plot.py at 2020-04-16 08:55:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.65 Mbit/s (1.1% utilization)
95th percentile per-packet one-way delay: 12.007 ms
Loss rate: 36.97%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 12.007 ms
Loss rate: 36.97%
```

Run 3: Report of FillP — Data Link



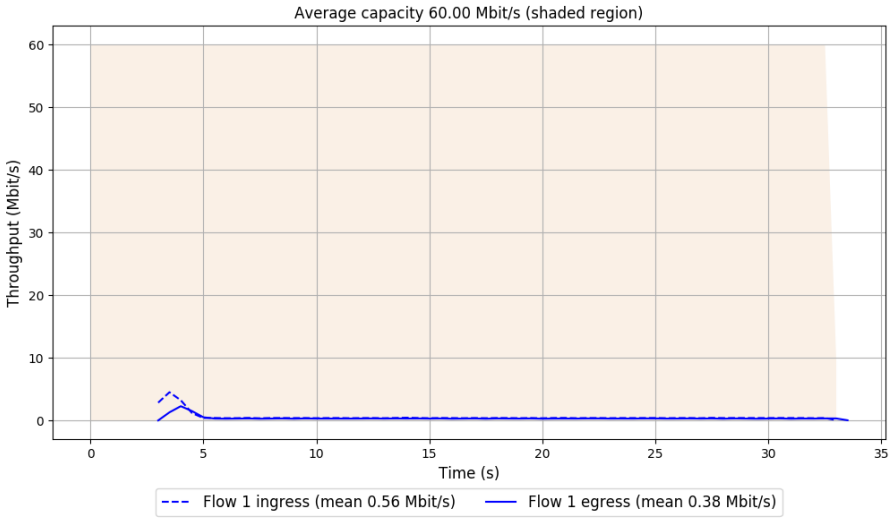


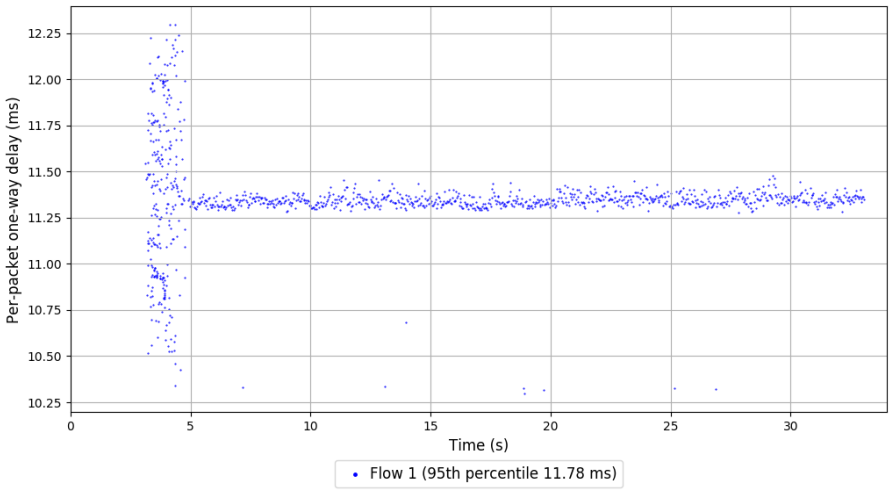
```
Run 1: Statistics of FillP-Sheep

Start at: 2020-04-16 08:17:27
End at: 2020-04-16 08:17:57

# Below is generated by plot.py at 2020-04-16 08:55:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.38 Mbit/s (0.6% utilization)
95th percentile per-packet one-way delay: 11.781 ms
Loss rate: 32.29%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 11.781 ms
Loss rate: 32.29%
```

Run 1: Report of FillP-Sheep — Data Link



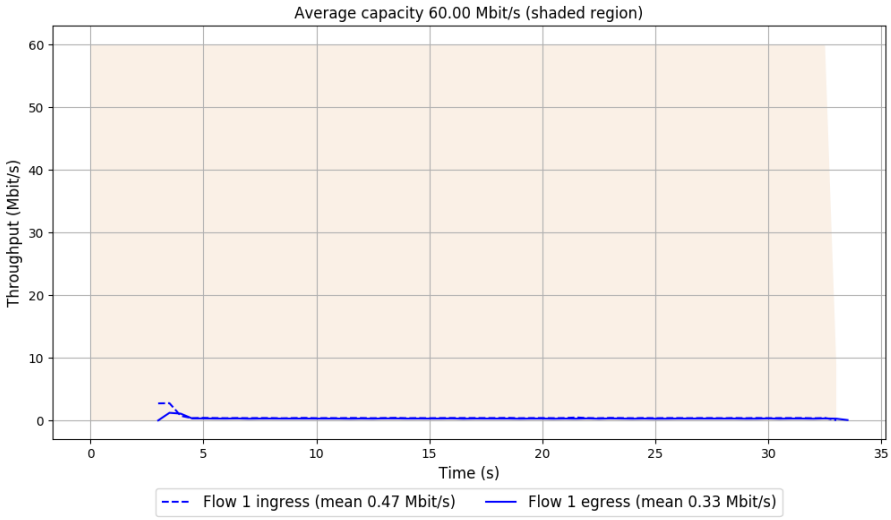


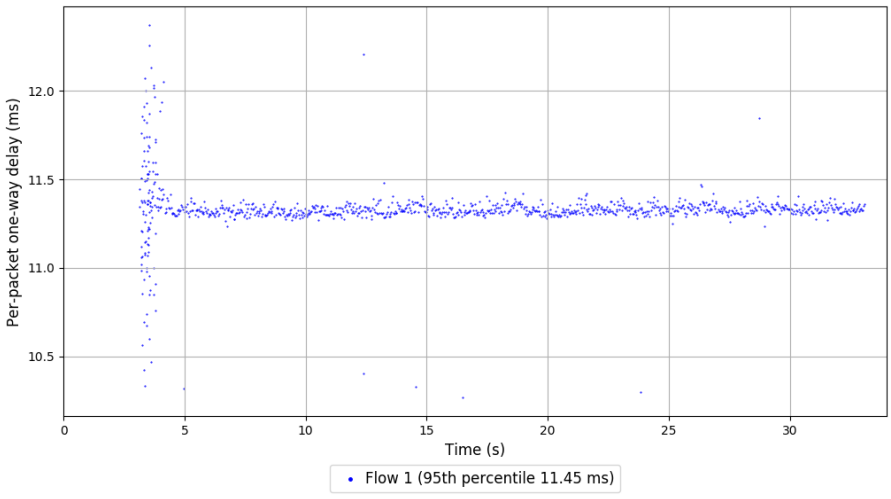
```
Run 2: Statistics of FillP-Sheep

Start at: 2020-04-16 08:31:50
End at: 2020-04-16 08:32:20

# Below is generated by plot.py at 2020-04-16 08:55:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.33 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 11.449 ms
Loss rate: 30.52%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 11.449 ms
Loss rate: 30.52%
```

Run 2: Report of FillP-Sheep — Data Link



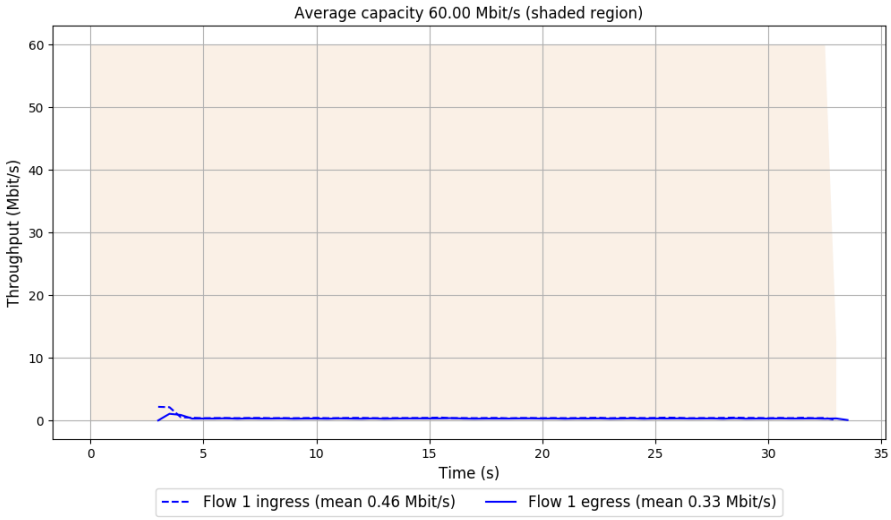


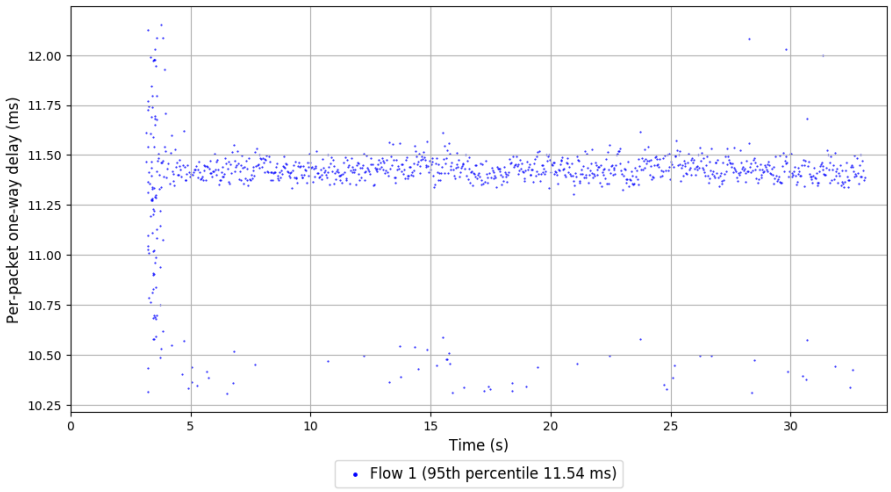
```
Run 3: Statistics of FillP-Sheep

Start at: 2020-04-16 08:46:18
End at: 2020-04-16 08:46:48

# Below is generated by plot.py at 2020-04-16 08:55:06
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.33 Mbit/s (0.5% utilization)
95th percentile per-packet one-way delay: 11.537 ms
Loss rate: 27.94%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 11.537 ms
Loss rate: 27.94%
```

Run 3: Report of FillP-Sheep — Data Link



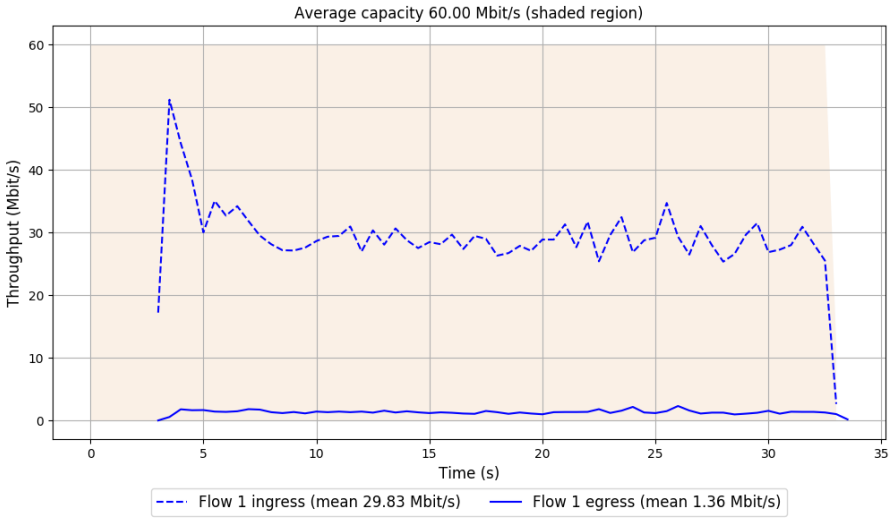


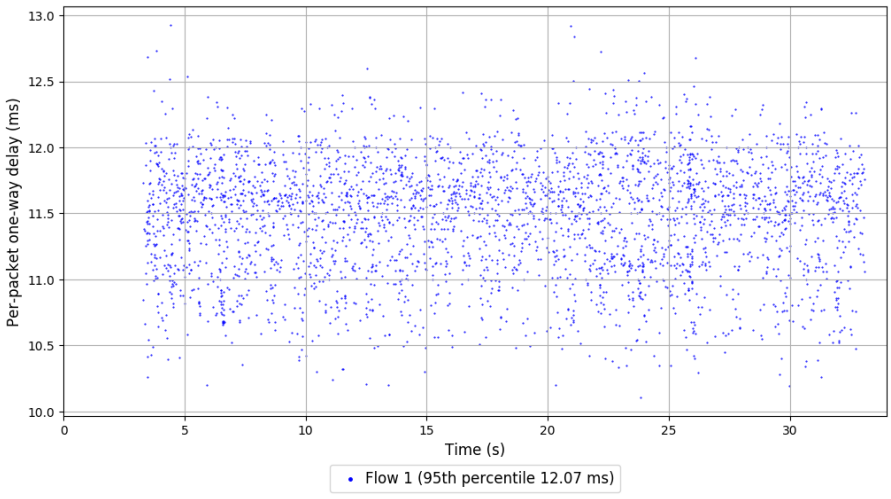
```
Run 1: Statistics of Indigo

Start at: 2020-04-16 08:22:10
End at: 2020-04-16 08:22:40

# Below is generated by plot.py at 2020-04-16 08:55:12
# 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: 12.071 ms
Loss rate: 95.43%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 12.071 ms
Loss rate: 95.43%
```

Run 1: Report of Indigo — Data Link



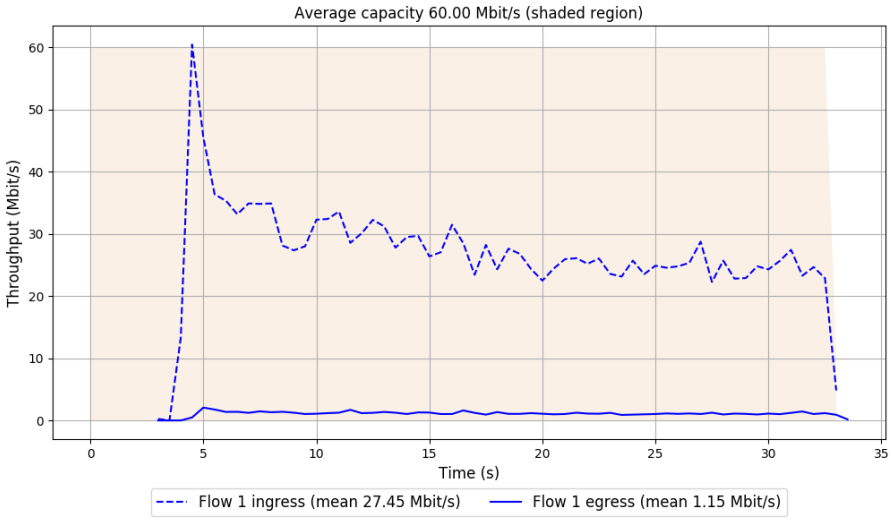


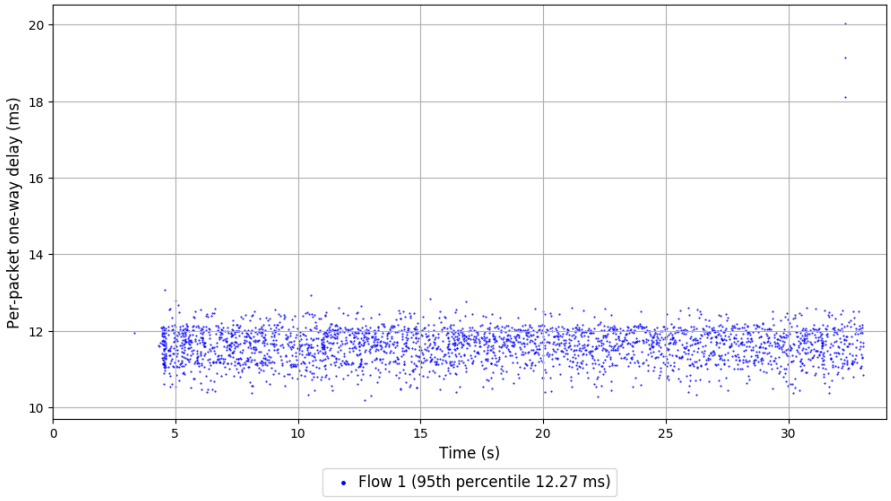
```
Run 2: Statistics of Indigo

Start at: 2020-04-16 08:36:33
End at: 2020-04-16 08:37:03

# Below is generated by plot.py at 2020-04-16 08:55:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.15 Mbit/s (1.9% utilization)
95th percentile per-packet one-way delay: 12.269 ms
Loss rate: 95.82%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 12.269 ms
Loss rate: 95.82%
```

Run 2: Report of Indigo — Data Link



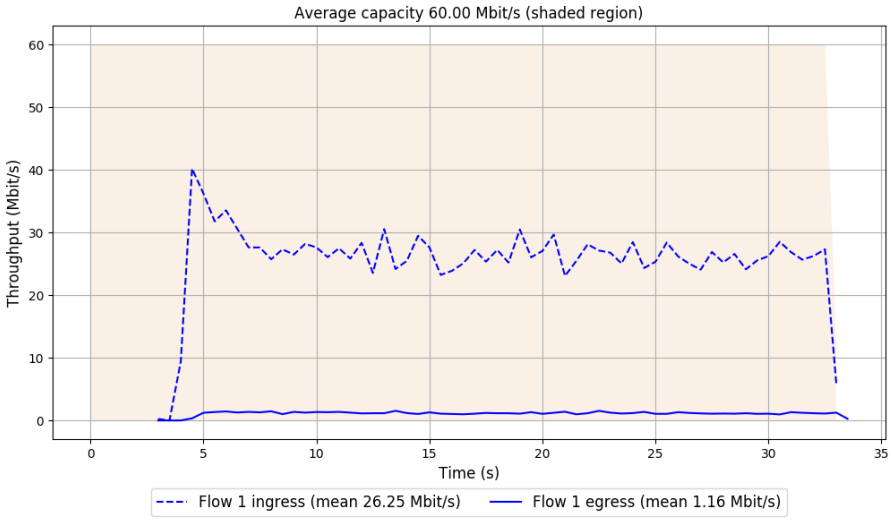


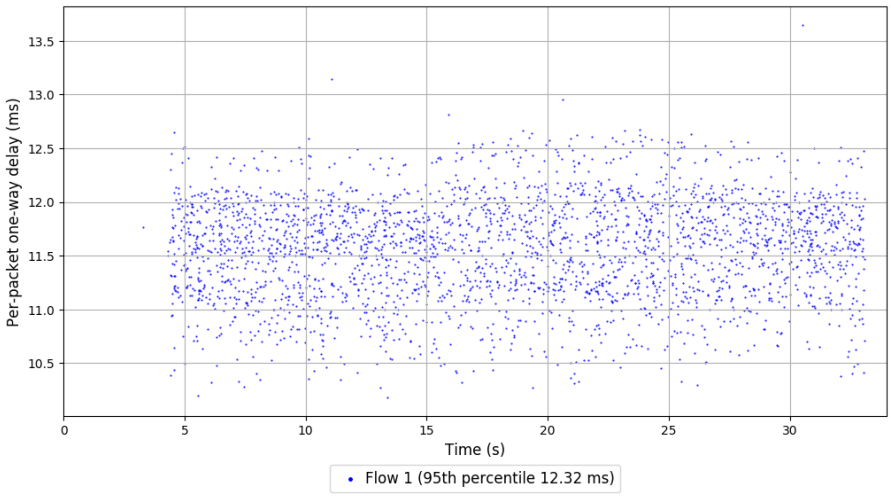
```
Run 3: Statistics of Indigo

Start at: 2020-04-16 08:51:01
End at: 2020-04-16 08:51:31

# Below is generated by plot.py at 2020-04-16 08:55:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.16 Mbit/s (1.9% utilization)
95th percentile per-packet one-way delay: 12.325 ms
Loss rate: 95.59%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 12.325 ms
Loss rate: 95.59%
```

Run 3: Report of Indigo — Data Link



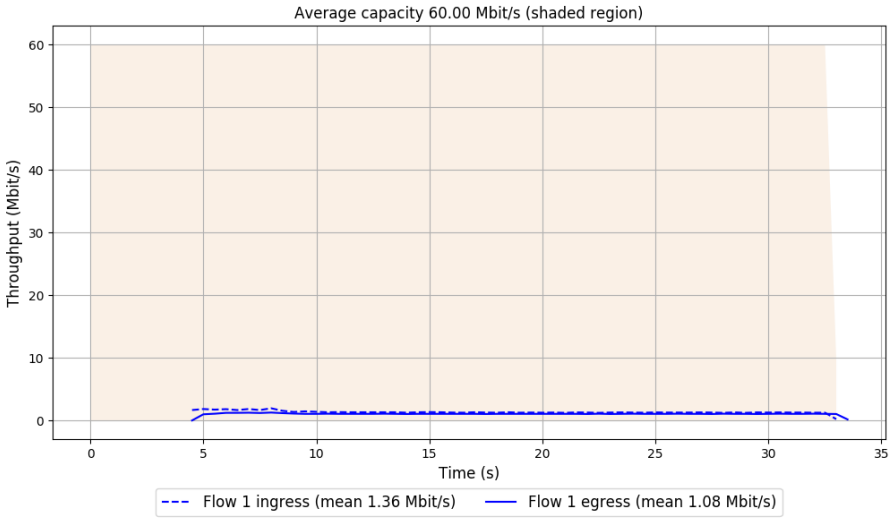


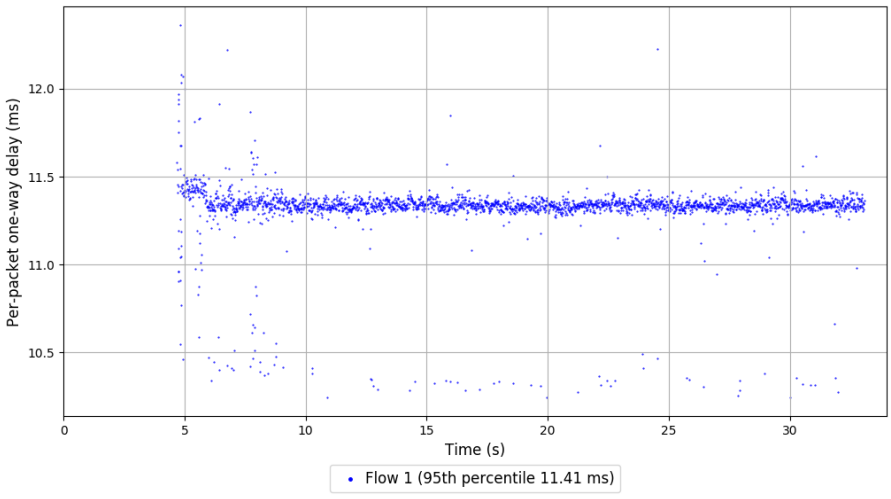
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:15:04
End at: 2020-04-16 08:15:34

# Below is generated by plot.py at 2020-04-16 08:55:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.08 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.414 ms
Loss rate: 20.85%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 11.414 ms
Loss rate: 20.85%
```

Run 1: Report of Indigo-MusesC3 — Data Link



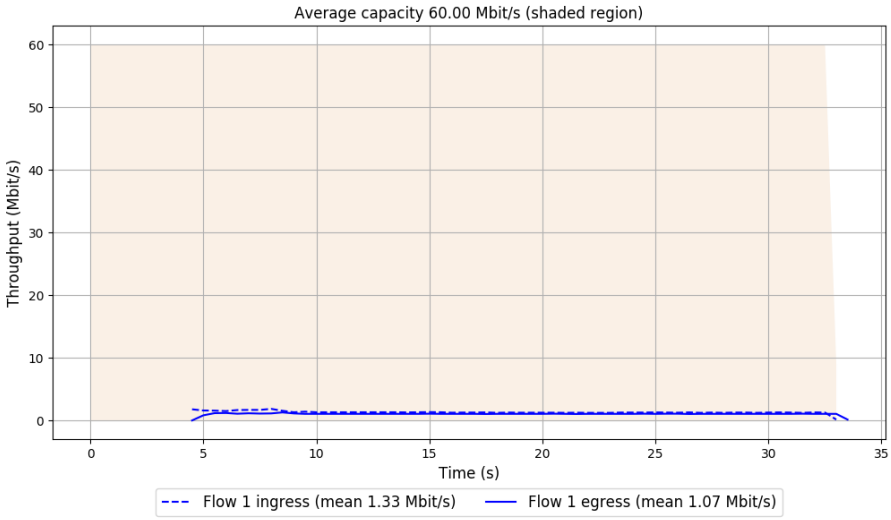


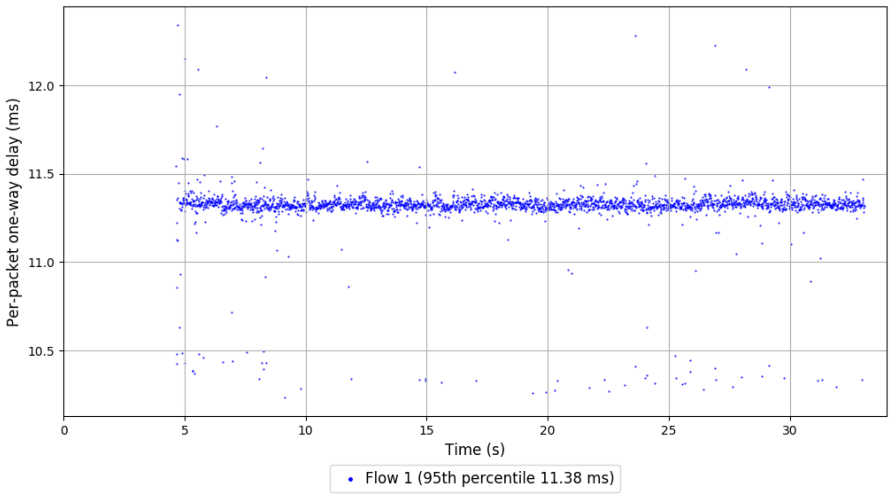
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:29:26
End at: 2020-04-16 08:29:56

# Below is generated by plot.py at 2020-04-16 08:55:33
# 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: 11.377 ms
Loss rate: 19.94%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 11.377 ms
Loss rate: 19.94%
```

Run 2: Report of Indigo-MusesC3 — Data Link



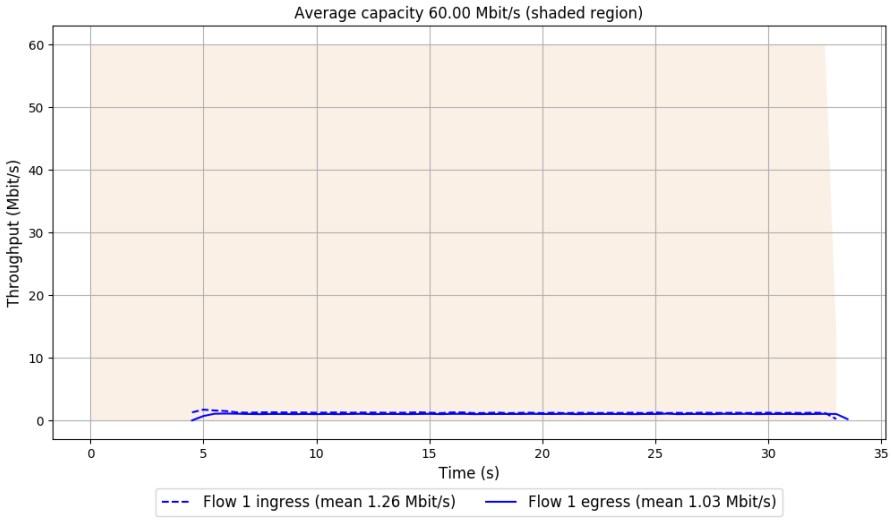


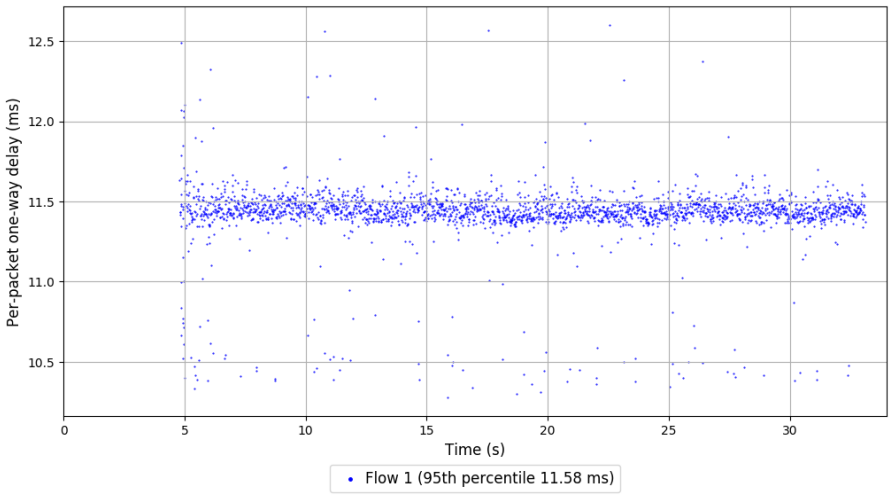
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-04-16 08:43:52
End at: 2020-04-16 08:44:22

# Below is generated by plot.py at 2020-04-16 08:55:33
# 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: 11.579 ms
Loss rate: 18.04%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 11.579 ms
Loss rate: 18.04%
```

Run 3: Report of Indigo-MusesC3 — Data Link



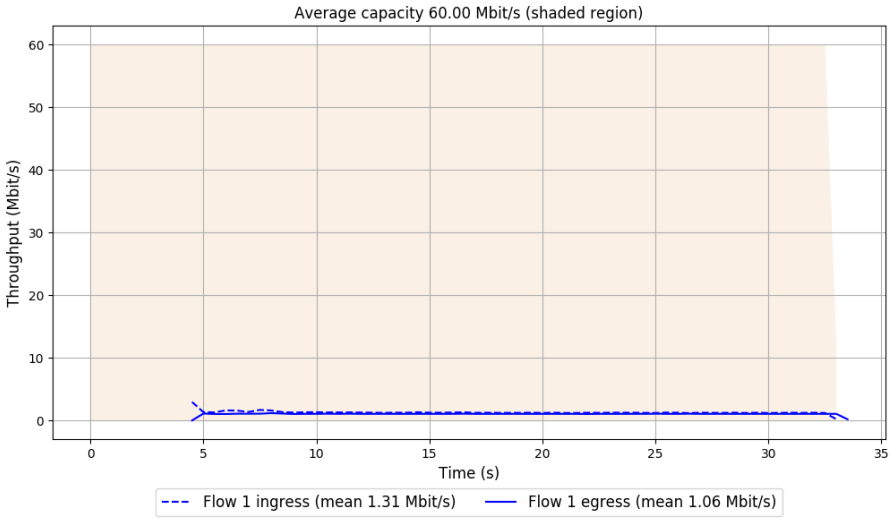


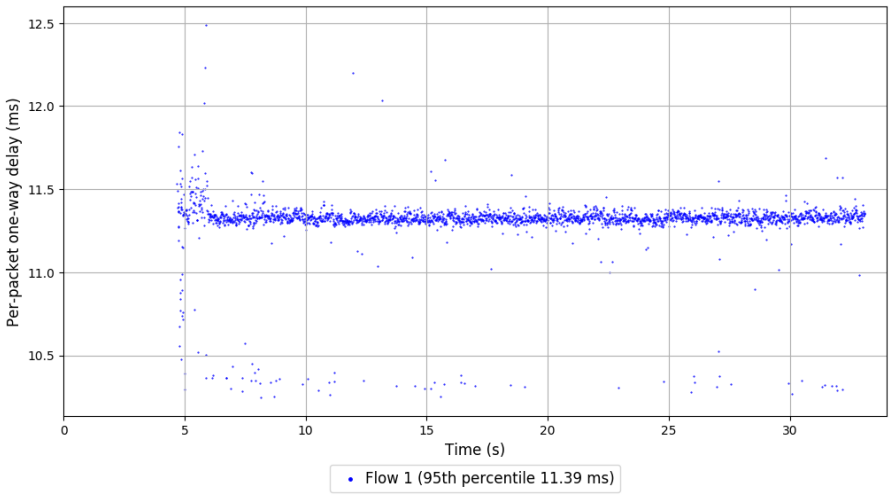
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:22:46
End at: 2020-04-16 08:23:16

# Below is generated by plot.py at 2020-04-16 08:55:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.06 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.389 ms
Loss rate: 18.58%
-- Flow 1:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 11.389 ms
Loss rate: 18.58%
```

Run 1: Report of Indigo-MusesC5 — Data Link



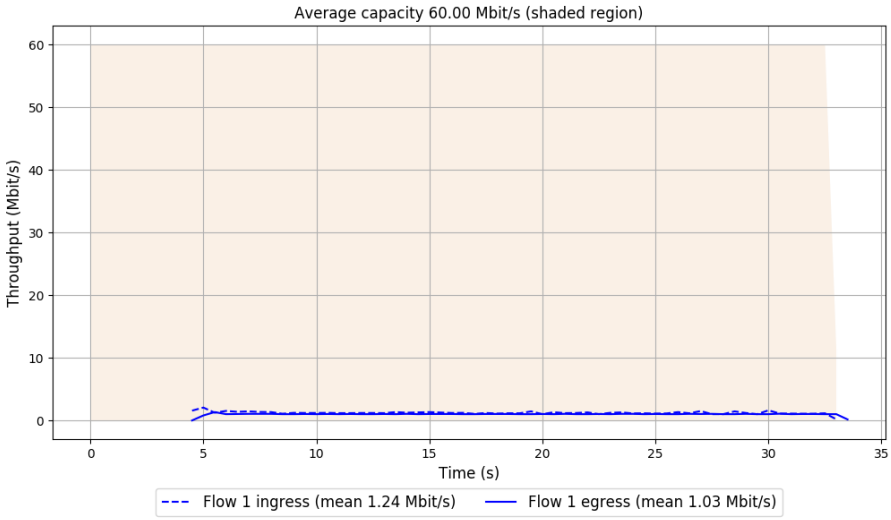


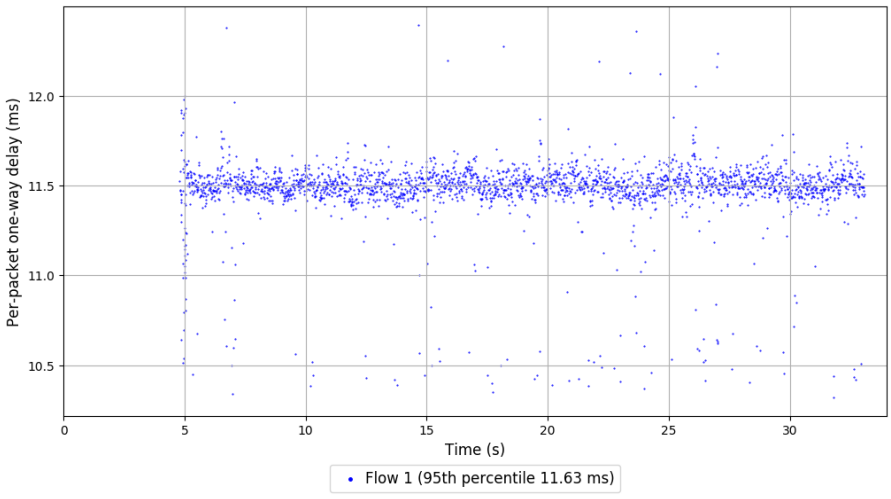
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:37:09
End at: 2020-04-16 08:37:39

# Below is generated by plot.py at 2020-04-16 08:55:33
# 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: 11.633 ms
Loss rate: 17.01%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 11.633 ms
Loss rate: 17.01%
```

Run 2: Report of Indigo-MusesC5 — Data Link



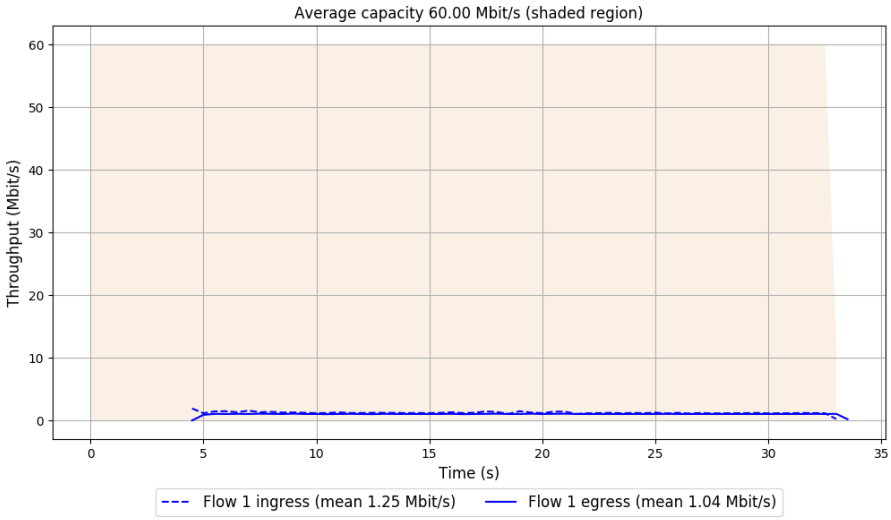


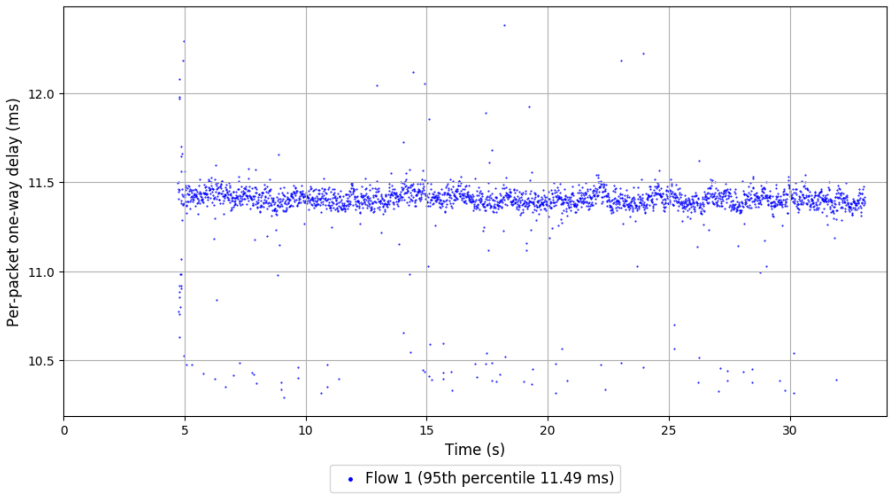
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-04-16 08:51:37
End at: 2020-04-16 08:52:07

# Below is generated by plot.py at 2020-04-16 08:55:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.04 Mbit/s (1.7% utilization)
95th percentile per-packet one-way delay: 11.486 ms
Loss rate: 16.59%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 11.486 ms
Loss rate: 16.59%
```

Run 3: Report of Indigo-MusesC5 — Data Link



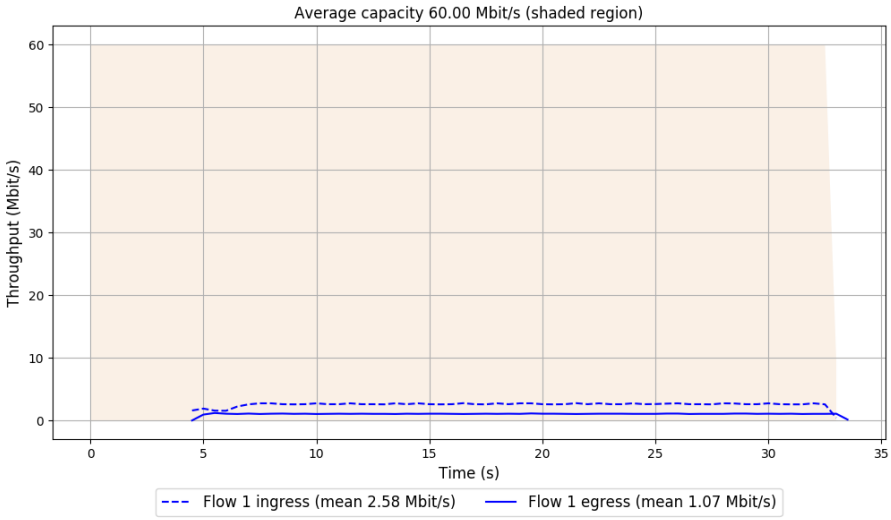


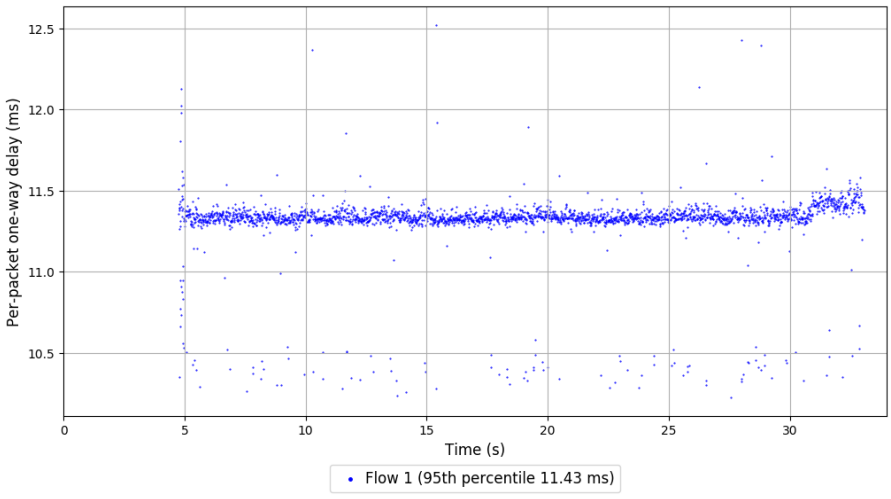
```
Run 1: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:14:29
End at: 2020-04-16 08:14:59

# Below is generated by plot.py at 2020-04-16 08:55:46
# 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: 11.433 ms
Loss rate: 58.59%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 11.433 ms
Loss rate: 58.59%
```

Run 1: Report of Indigo-MusesD — Data Link



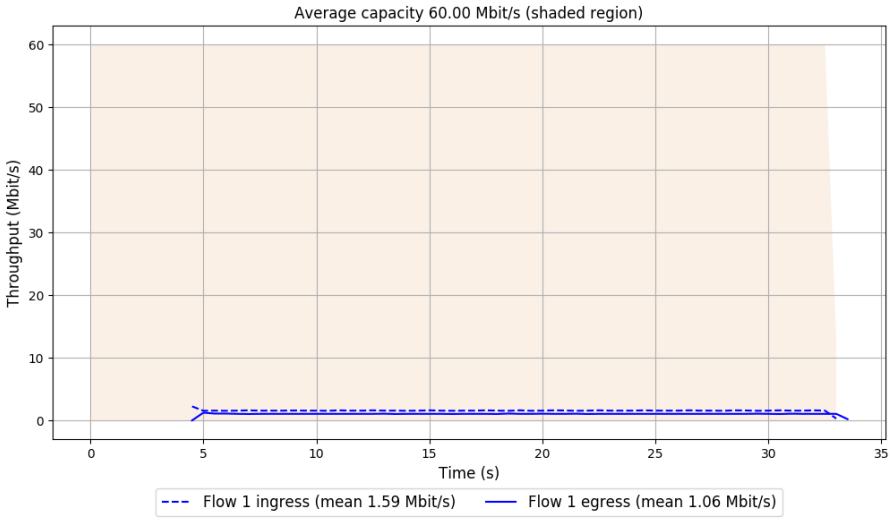


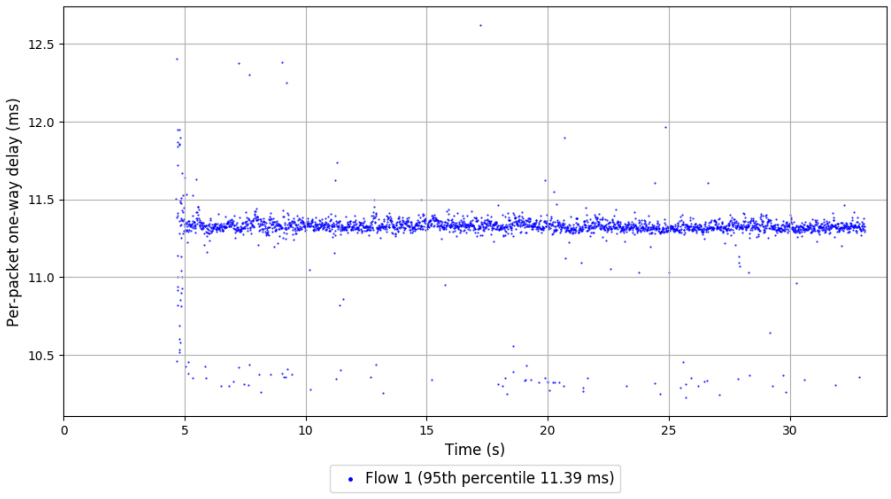
```
Run 2: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:28:51
End at: 2020-04-16 08:29:21

# Below is generated by plot.py at 2020-04-16 08:55:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.06 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.388 ms
Loss rate: 33.32%
-- Flow 1:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 11.388 ms
Loss rate: 33.32%
```

Run 2: Report of Indigo-MusesD — Data Link



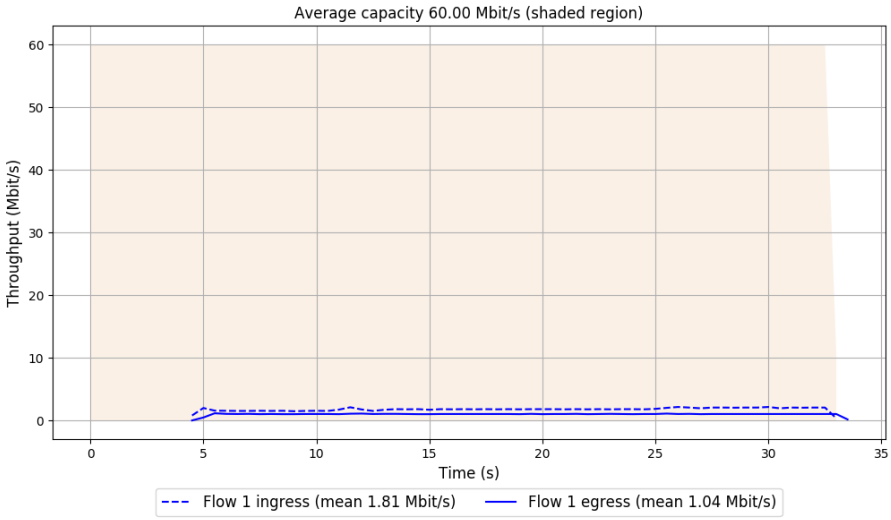


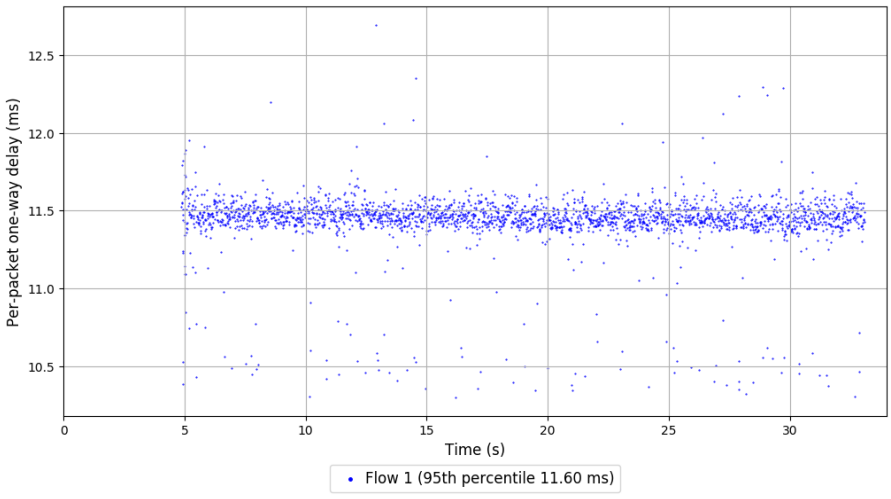
```
Run 3: Statistics of Indigo-MusesD

Start at: 2020-04-16 08:43:16
End at: 2020-04-16 08:43:46

# Below is generated by plot.py at 2020-04-16 08:55:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.04 Mbit/s (1.7% utilization)
95th percentile per-packet one-way delay: 11.596 ms
Loss rate: 42.91%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 11.596 ms
Loss rate: 42.91%
```

Run 3: Report of Indigo-MusesD — Data Link



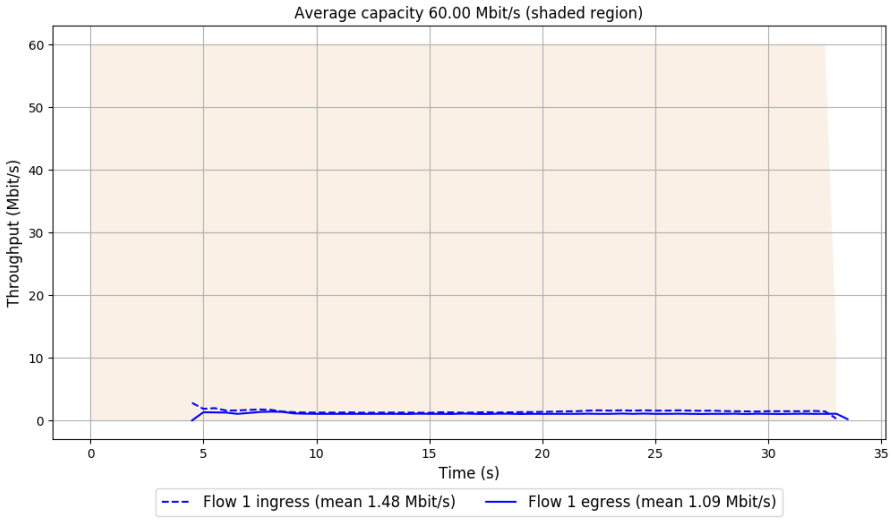


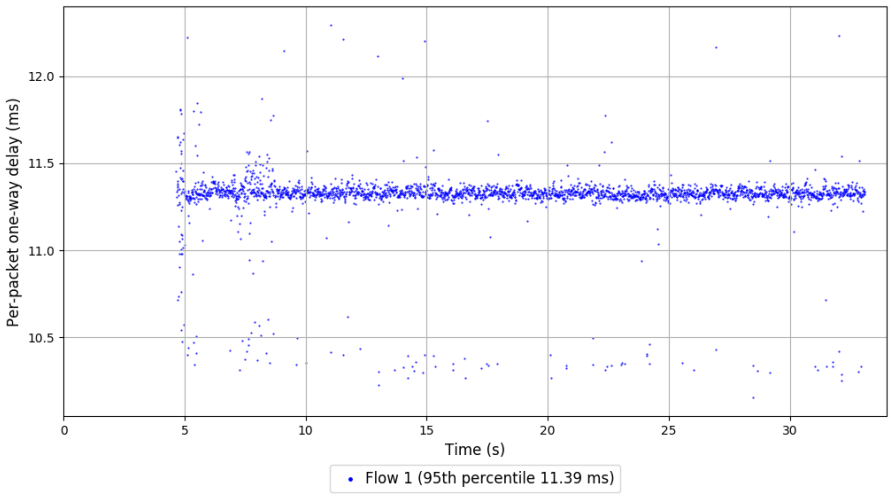
```
Run 1: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:20:24
End at: 2020-04-16 08:20:54

# Below is generated by plot.py at 2020-04-16 08:55:49
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.09 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.393 ms
Loss rate: 25.88%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 11.393 ms
Loss rate: 25.88%
```

Run 1: Report of Indigo-MusesT — Data Link



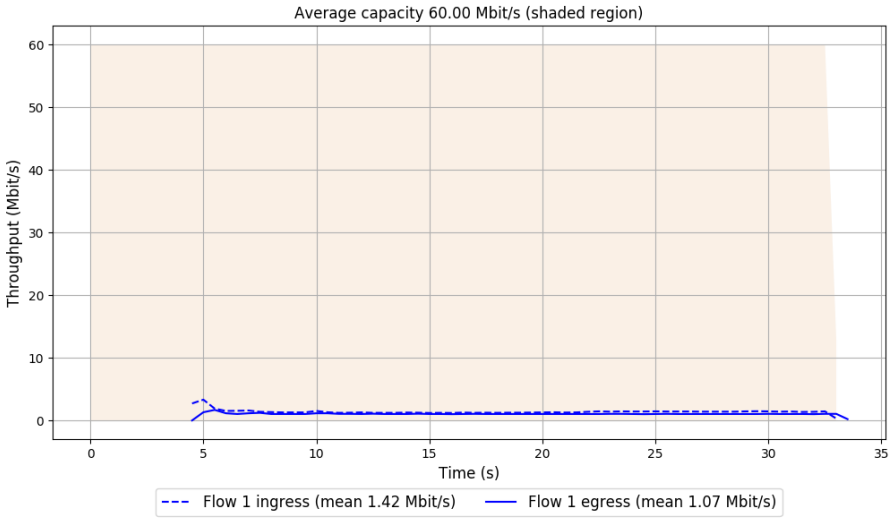


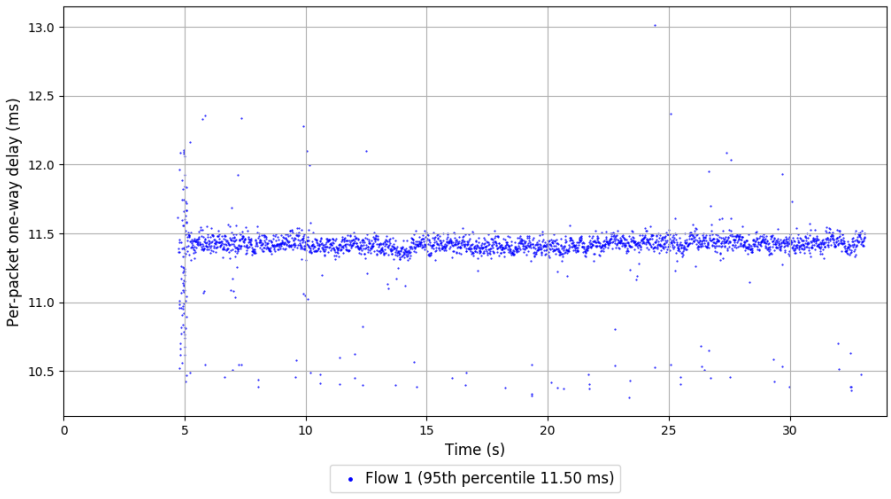
```
Run 2: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:34:47
End at: 2020-04-16 08:35:17

# Below is generated by plot.py at 2020-04-16 08:55:50
# 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: 11.504 ms
Loss rate: 24.96%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 11.504 ms
Loss rate: 24.96%
```

Run 2: Report of Indigo-MusesT — Data Link



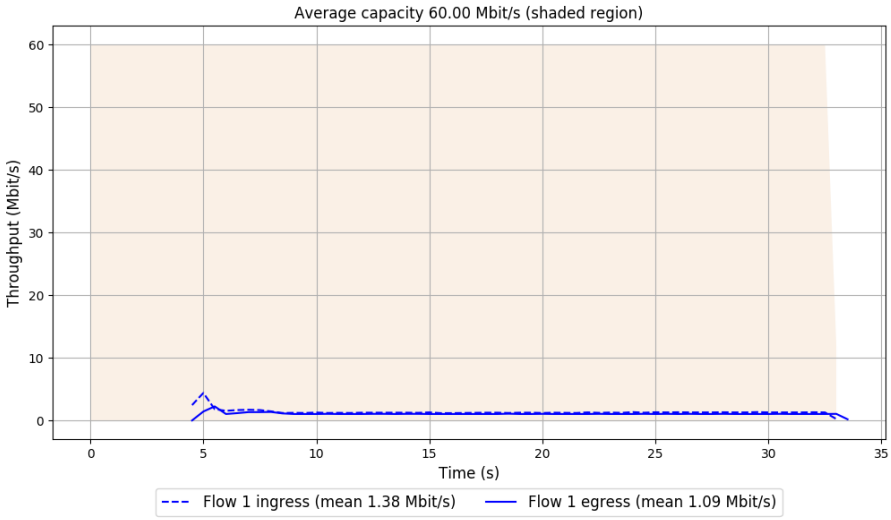


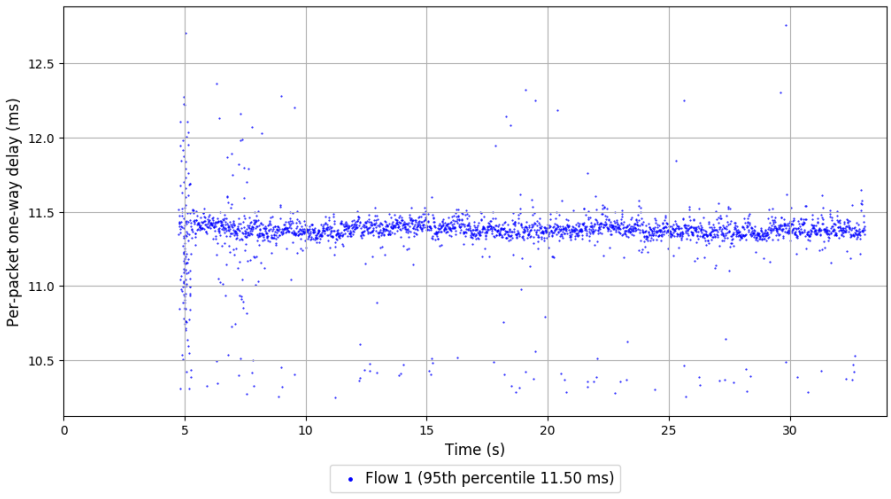
```
Run 3: Statistics of Indigo-MusesT

Start at: 2020-04-16 08:49:15
End at: 2020-04-16 08:49:45

# Below is generated by plot.py at 2020-04-16 08:55:53
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.09 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.498 ms
Loss rate: 20.63%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 11.498 ms
Loss rate: 20.63%
```

Run 3: Report of Indigo-MusesT — Data Link



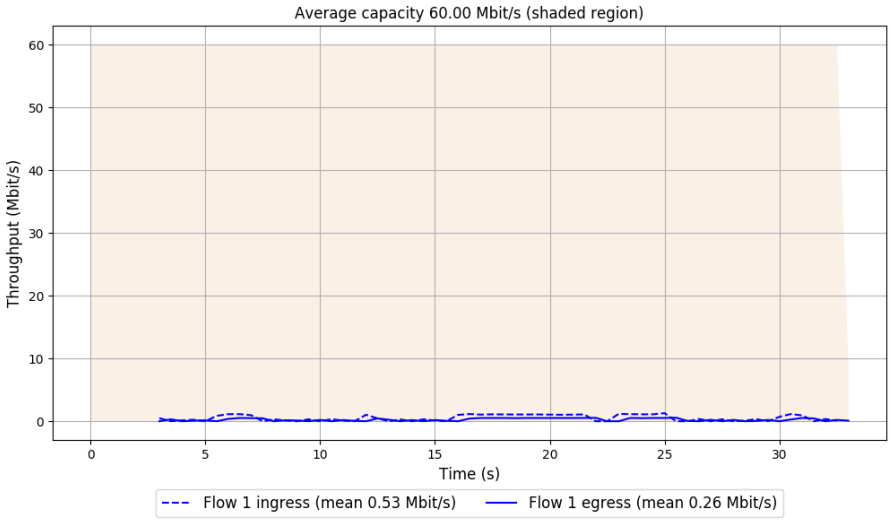


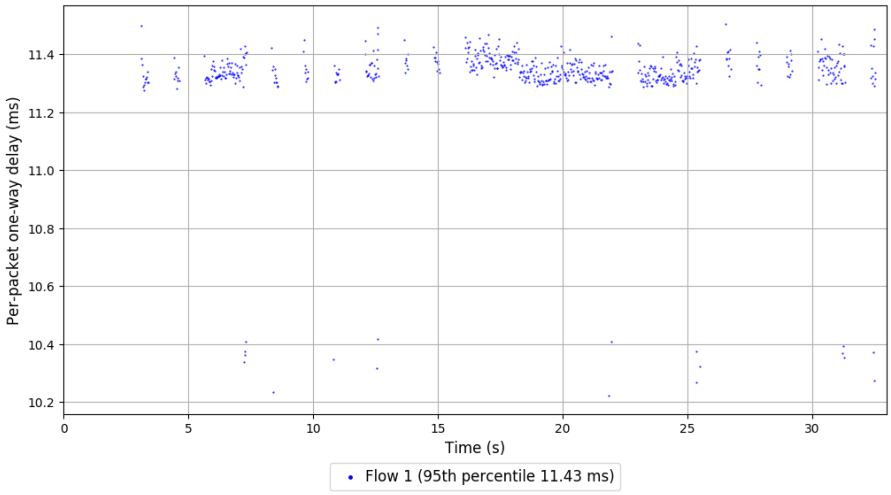
```
Run 1: Statistics of LEDBAT

Start at: 2020-04-16 08:12:08
End at: 2020-04-16 08:12:38

# Below is generated by plot.py at 2020-04-16 08:55:55
# 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: 11.425 ms
Loss rate: 51.09%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 11.425 ms
Loss rate: 51.09%
```

Run 1: Report of LEDBAT — Data Link



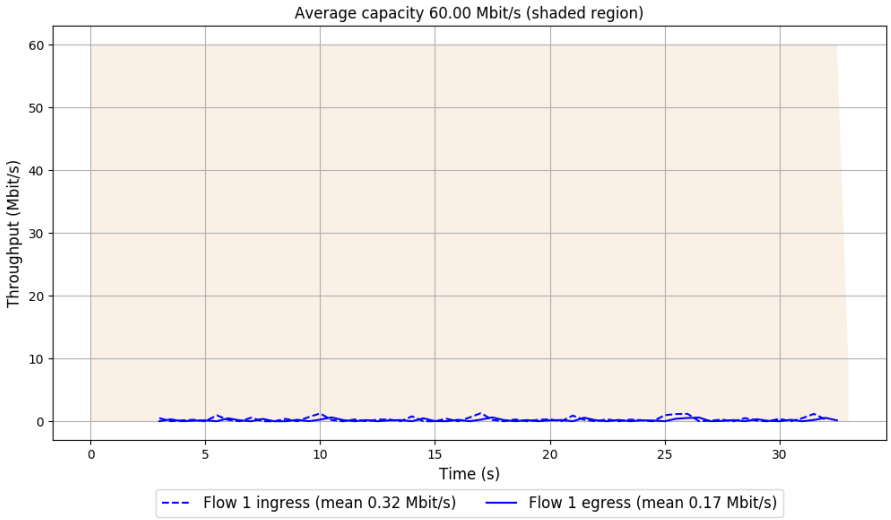


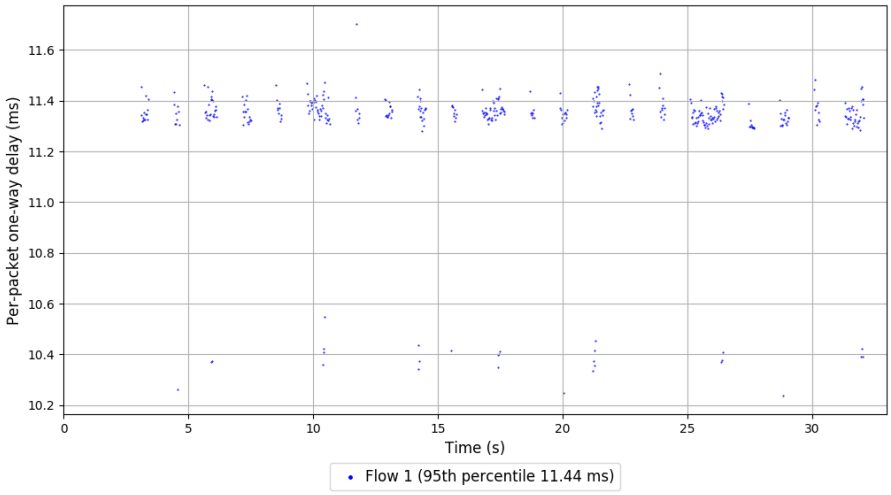
```
Run 2: Statistics of LEDBAT

Start at: 2020-04-16 08:26:30
End at: 2020-04-16 08:27:00

# 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: 0.17 Mbit/s (0.3% utilization)
95th percentile per-packet one-way delay: 11.436 ms
Loss rate: 45.01%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 11.436 ms
Loss rate: 45.01%
```

Run 2: Report of LEDBAT — Data Link



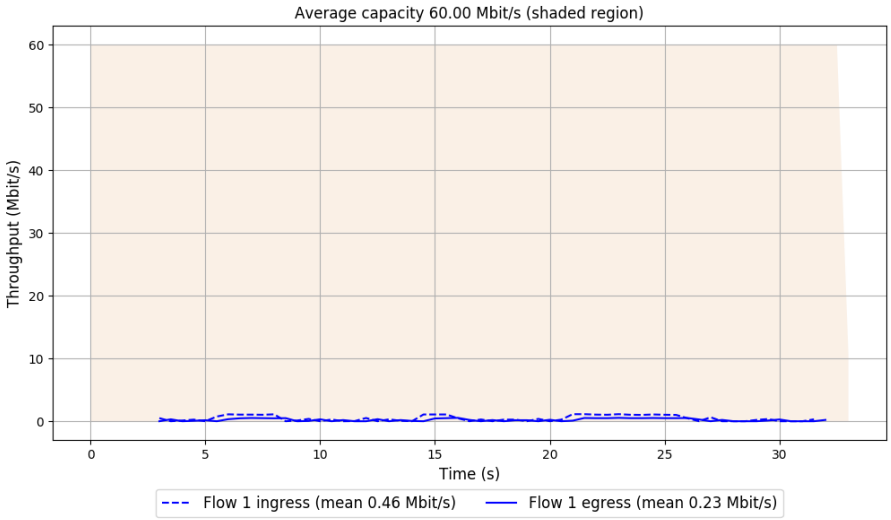


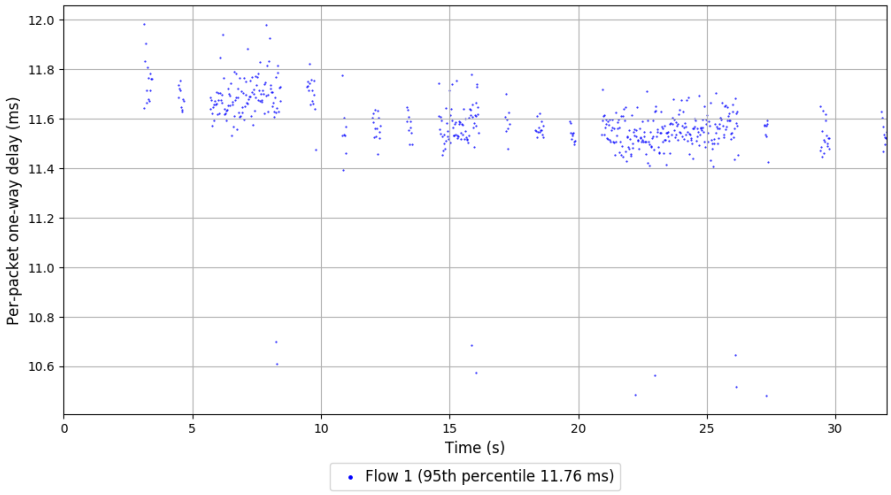
```
Run 3: Statistics of LEDBAT

Start at: 2020-04-16 08:40:55
End at: 2020-04-16 08:41:25

# Below is generated by plot.py at 2020-04-16 08:56:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.23 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 11.764 ms
Loss rate: 50.40%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 11.764 ms
Loss rate: 50.40%
```

Run 3: Report of LEDBAT — Data Link



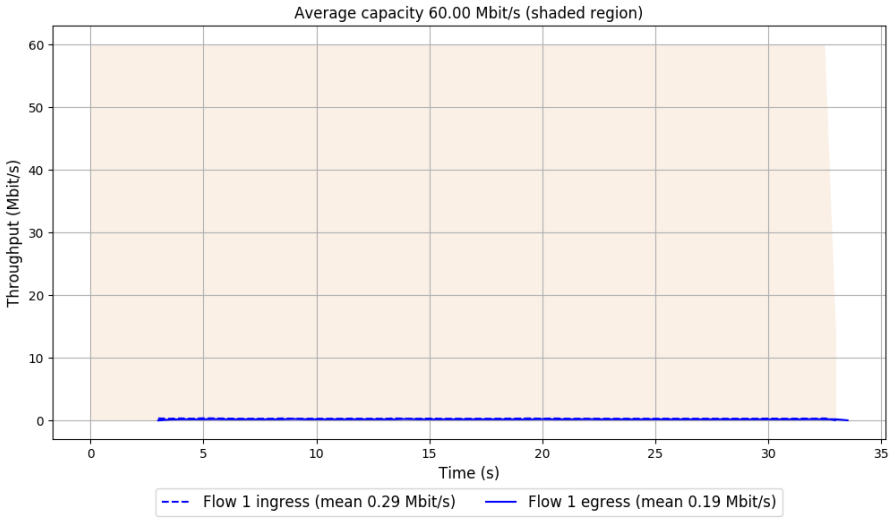


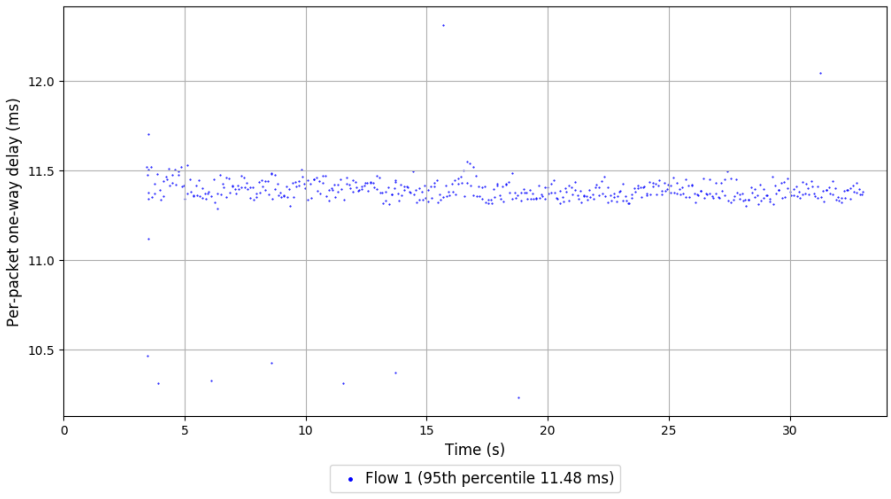
```
Run 1: Statistics of Muses\_DecisionTree

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

# Below is generated by plot.py at 2020-04-16 08:56:10
# 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: 11.476 ms
Loss rate: 34.80%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.476 ms
Loss rate: 34.80%
```

Run 1: Report of Muses_DecisionTree — Data Link



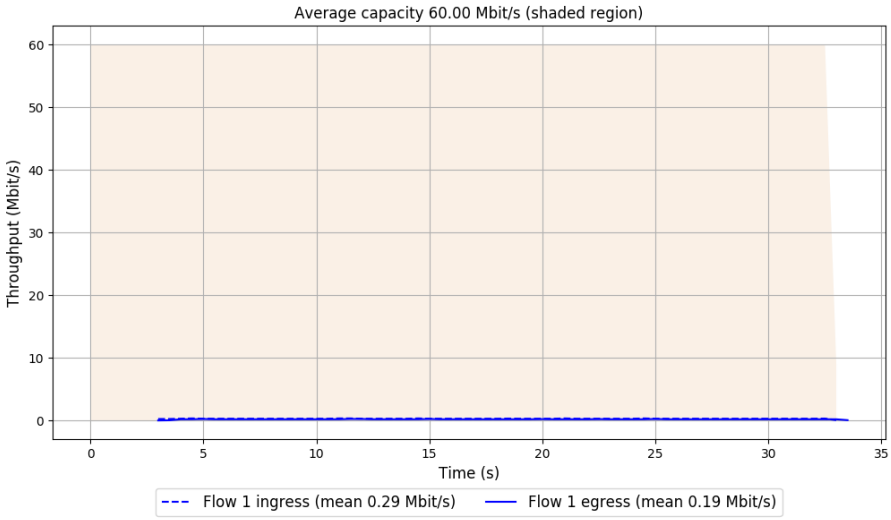


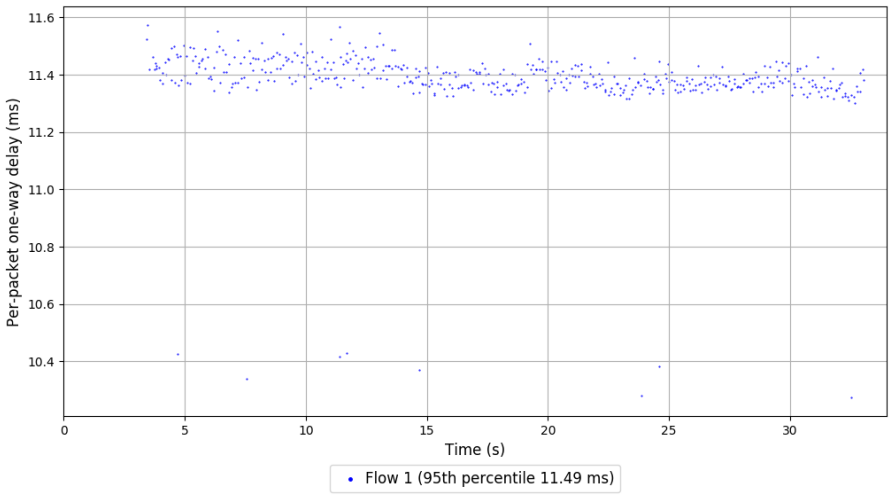
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 08:31:15
End at: 2020-04-16 08:31:45

# Below is generated by plot.py at 2020-04-16 08:56:10
# 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: 11.486 ms
Loss rate: 33.47%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.486 ms
Loss rate: 33.47%
```

Run 2: Report of Muses_DecisionTree — Data Link



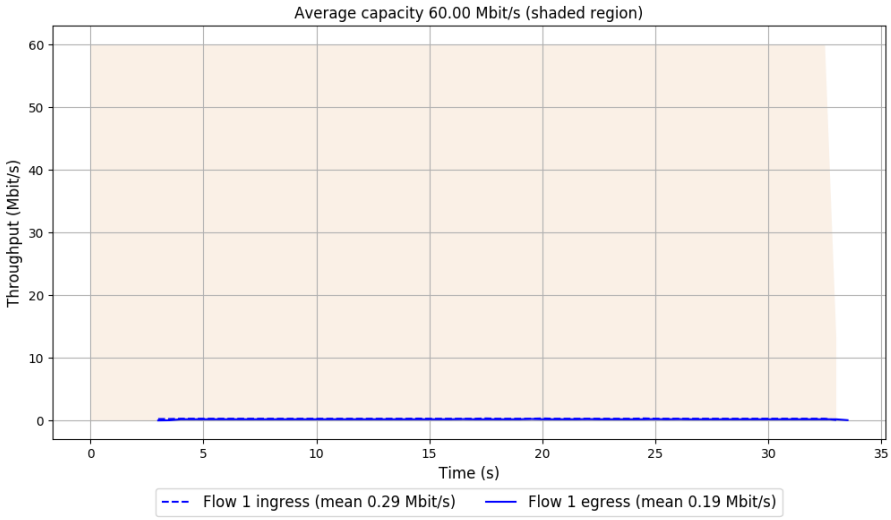


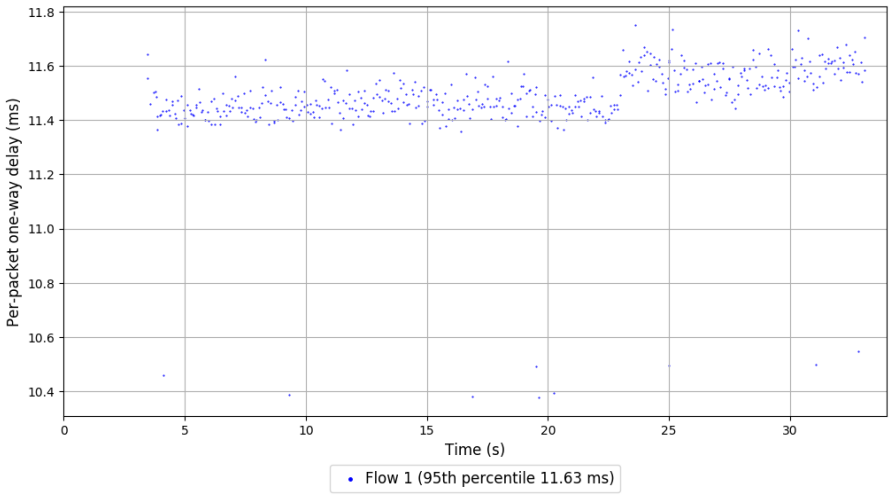
```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 08:45:43
End at: 2020-04-16 08:46:13

# Below is generated by plot.py at 2020-04-16 08:56:11
# 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: 11.634 ms
Loss rate: 33.74%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.634 ms
Loss rate: 33.74%
```

Run 3: Report of Muses_DecisionTree — Data Link



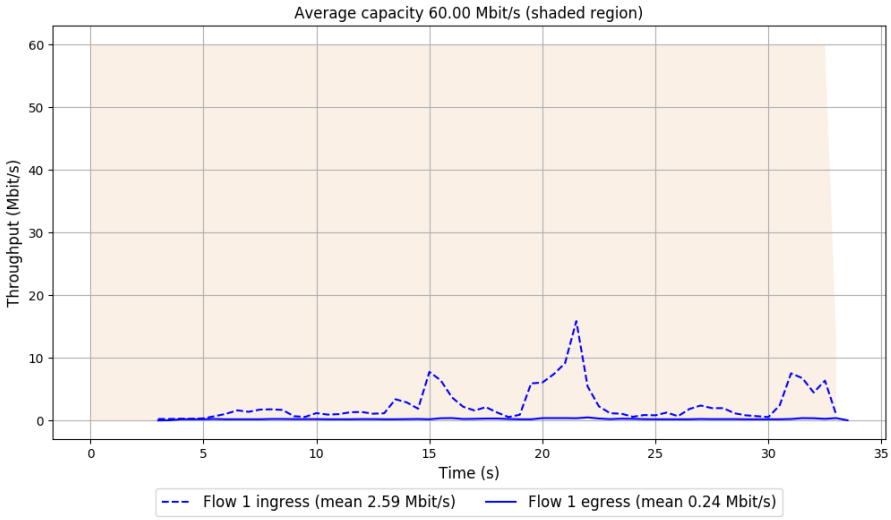


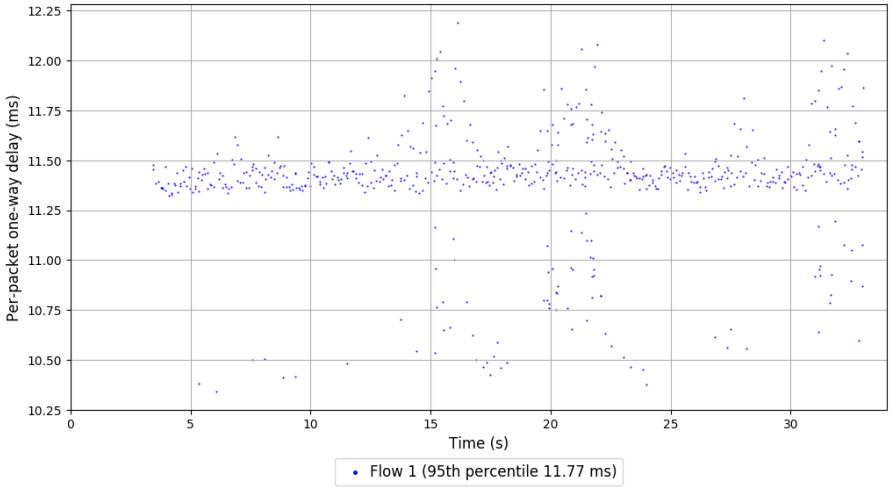
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:12:43
End at: 2020-04-16 08:13:13

# Below is generated by plot.py at 2020-04-16 08:56:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.24 Mbit/s (0.4% utilization)
95th percentile per-packet one-way delay: 11.773 ms
Loss rate: 90.68%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 11.773 ms
Loss rate: 90.68%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link



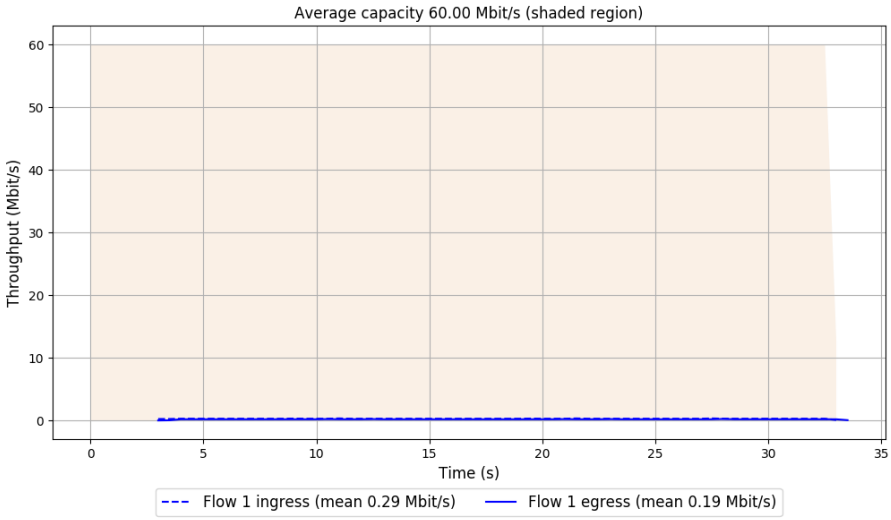


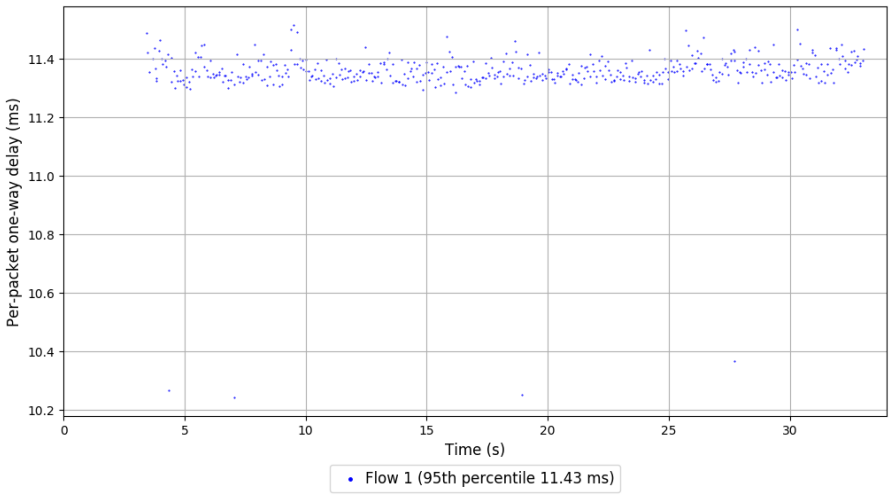
```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:27:05
End at: 2020-04-16 08:27:35

# Below is generated by plot.py at 2020-04-16 08:56:14
# 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: 11.430 ms
Loss rate: 33.84%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.430 ms
Loss rate: 33.84%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link



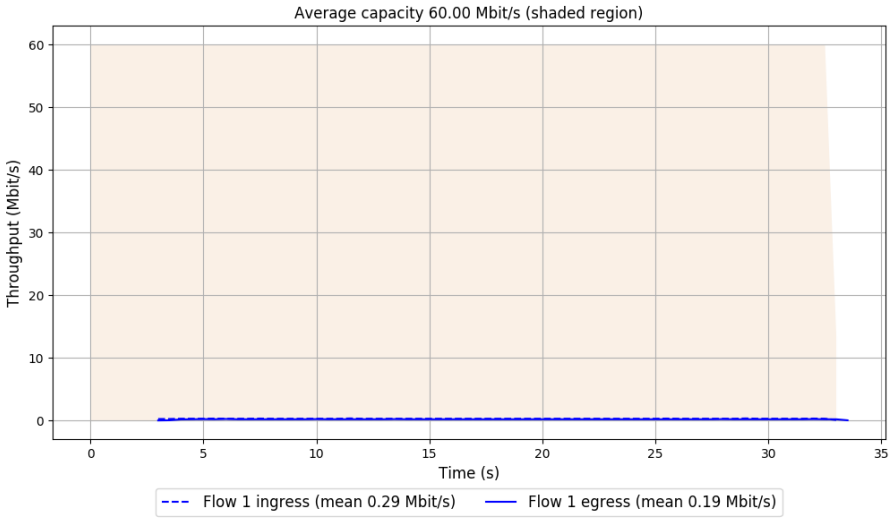


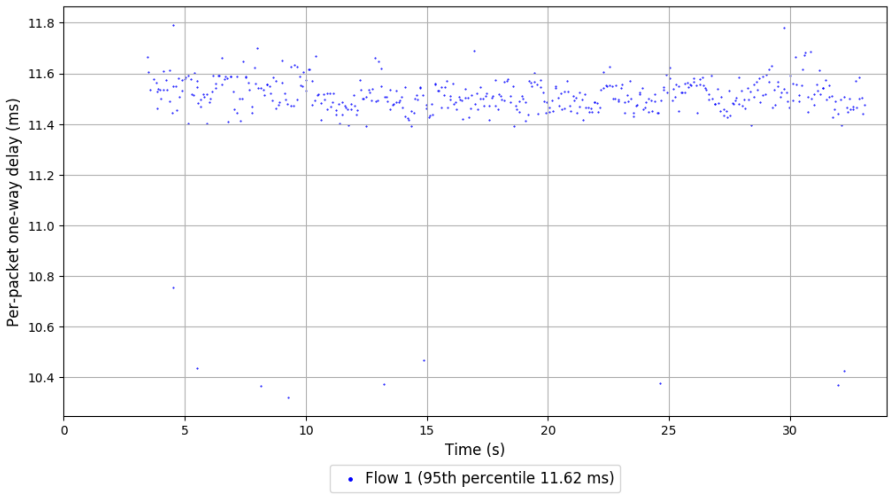
```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 08:41:30
End at: 2020-04-16 08:42:00

# Below is generated by plot.py at 2020-04-16 08:56:16
# 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: 11.616 ms
Loss rate: 33.97%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.616 ms
Loss rate: 33.97%
```

Run 3: Report of Muses_DecisionTreeH0 — Data Link



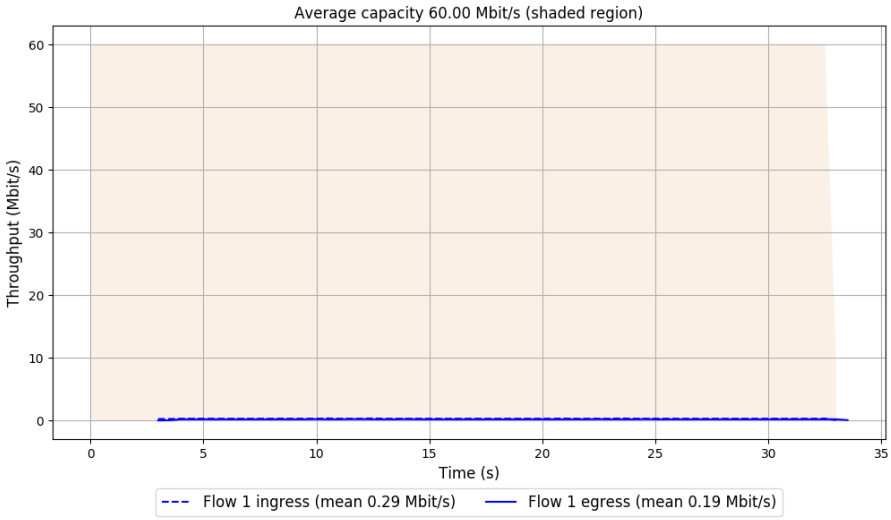


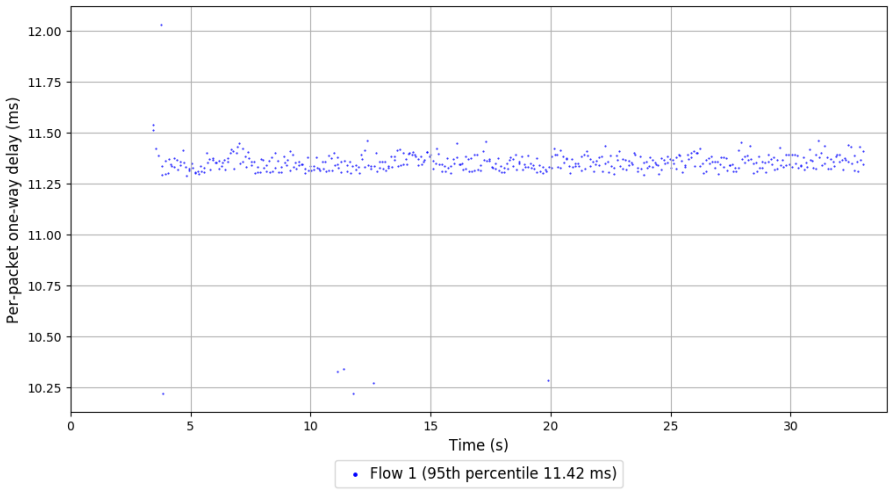
```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:21:00
End at: 2020-04-16 08:21:30

# Below is generated by plot.py at 2020-04-16 08:56:18
# 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: 11.421 ms
Loss rate: 33.84%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.421 ms
Loss rate: 33.84%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link



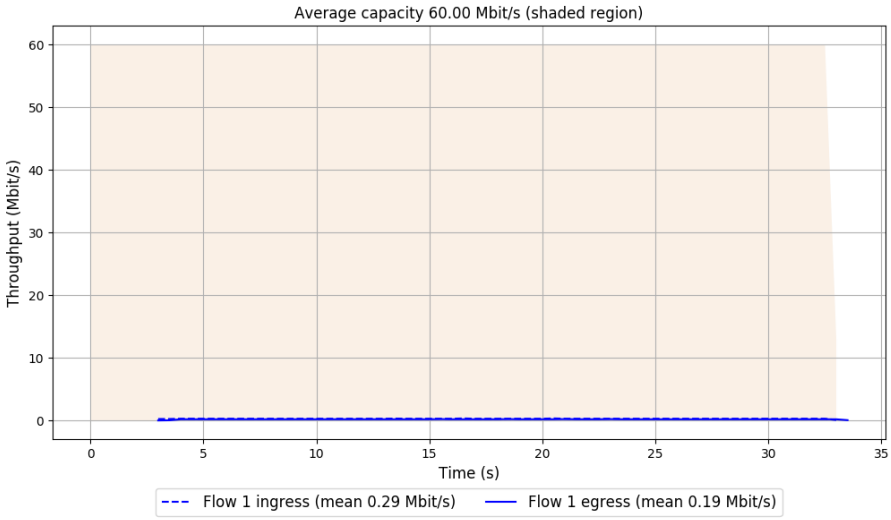


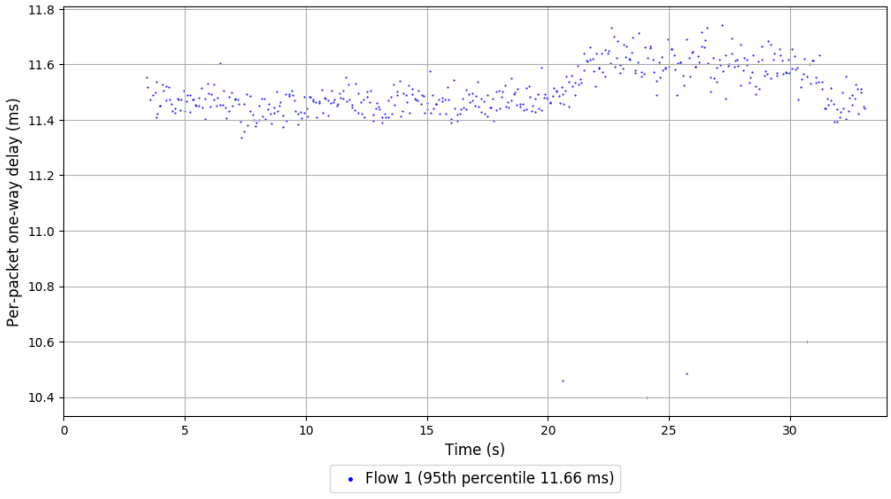
```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:35:22
End at: 2020-04-16 08:35:52

# Below is generated by plot.py at 2020-04-16 08:56:30
# 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: 11.657 ms
Loss rate: 33.84%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.657 ms
Loss rate: 33.84%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link



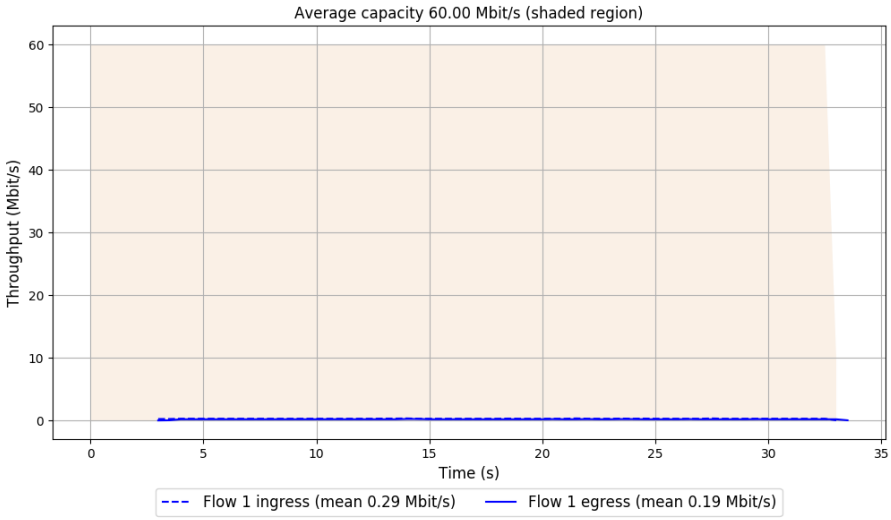


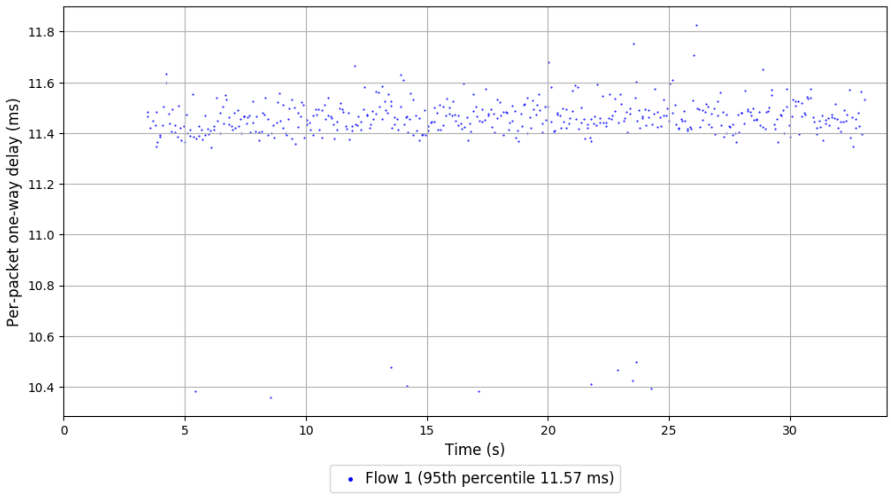
```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 08:49:50
End at: 2020-04-16 08:50:20

# Below is generated by plot.py at 2020-04-16 08:56:32
# 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: 11.571 ms
Loss rate: 33.51%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 11.571 ms
Loss rate: 33.51%
```

Run 3: Report of Muses_DecisionTreeR0 — Data Link



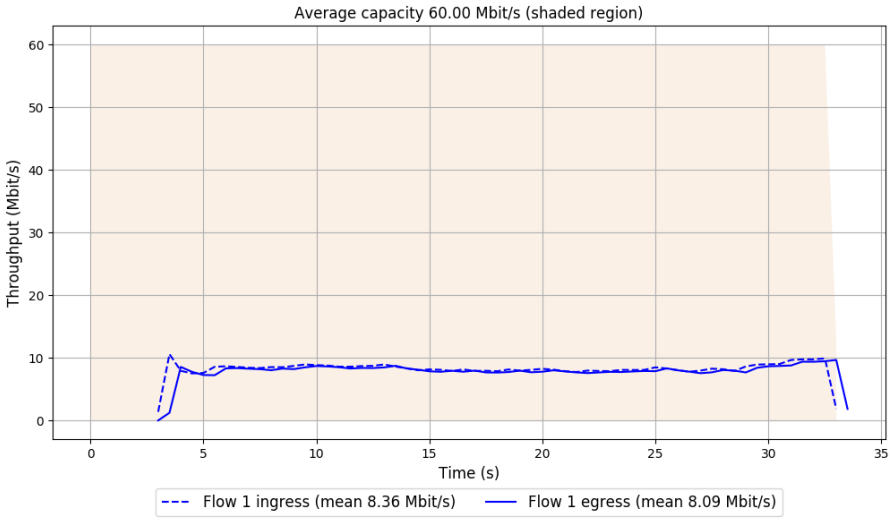


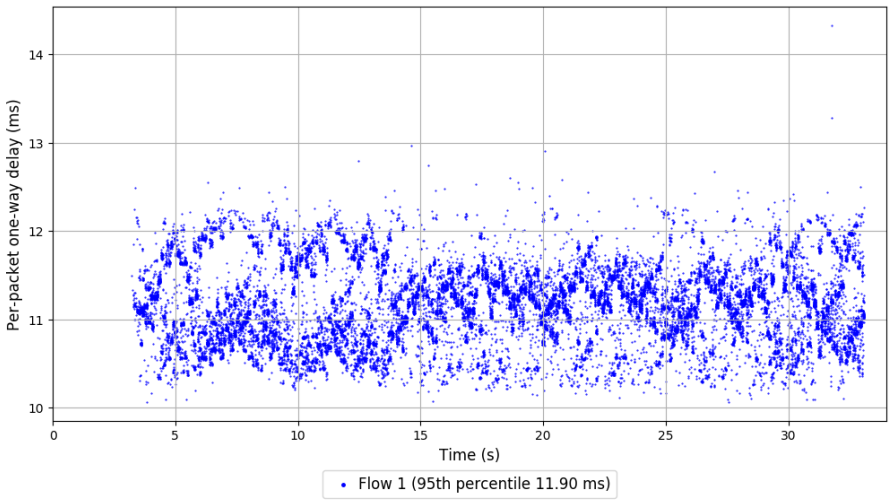
```
Run 1: Statistics of PCC-Allegro

Start at: 2020-04-16 08:18:38
End at: 2020-04-16 08:19:08

# Below is generated by plot.py at 2020-04-16 08:56:41
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 8.09 Mbit/s (13.5% utilization)
95th percentile per-packet one-way delay: 11.904 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 11.904 ms
Loss rate: 3.25%
```

Run 1: Report of PCC-Allegro — Data Link



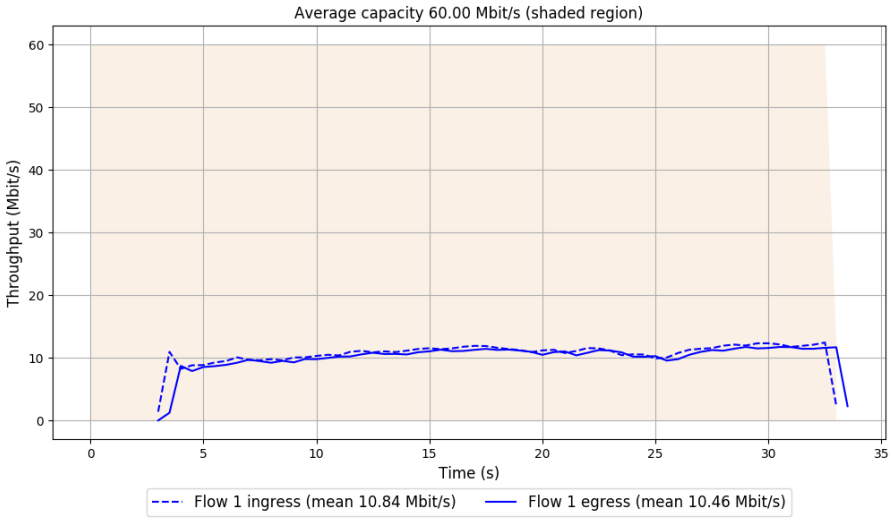


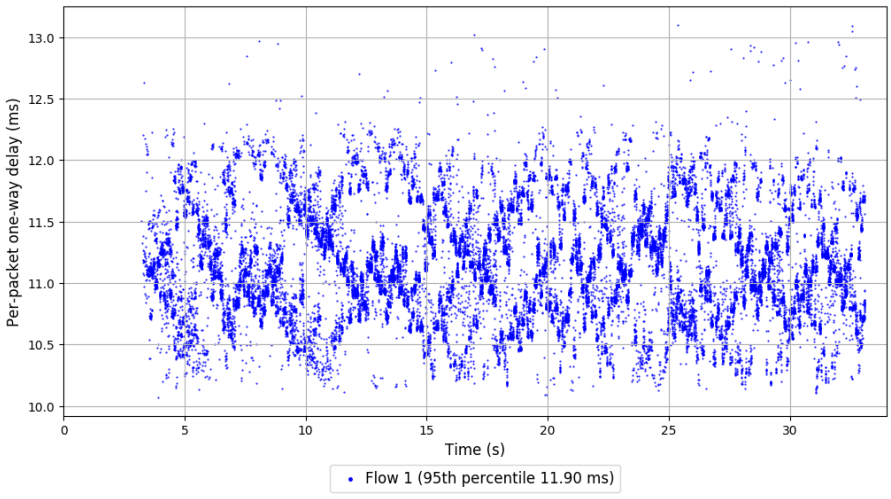
```
Run 2: Statistics of PCC-Allegro

Start at: 2020-04-16 08:33:01
End at: 2020-04-16 08:33:31

# Below is generated by plot.py at 2020-04-16 08:56:44
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 10.46 Mbit/s (17.4% utilization)
95th percentile per-packet one-way delay: 11.901 ms
Loss rate: 3.55%
-- Flow 1:
Average throughput: 10.46 Mbit/s
95th percentile per-packet one-way delay: 11.901 ms
Loss rate: 3.55%
```

Run 2: Report of PCC-Allegro — Data Link



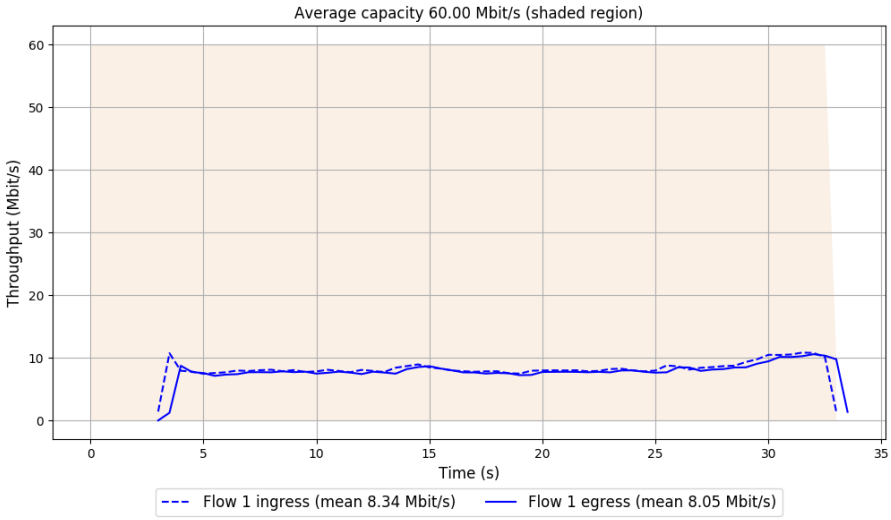


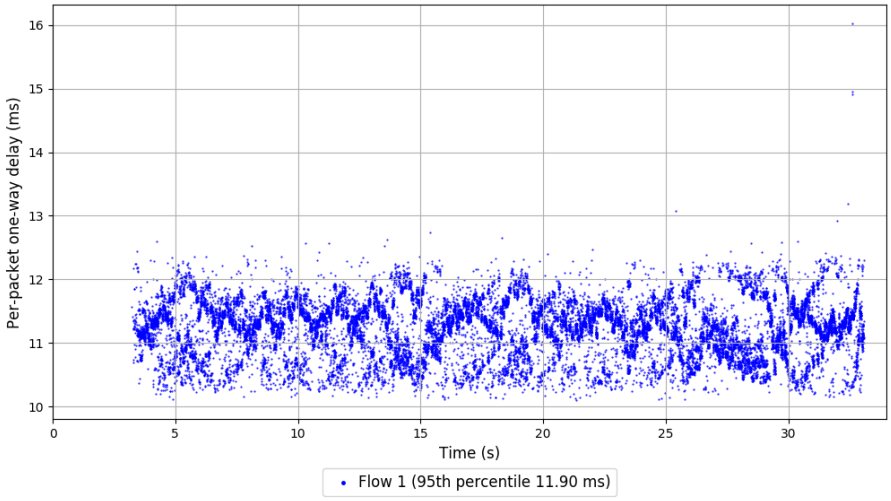
```
Run 3: Statistics of PCC-Allegro

Start at: 2020-04-16 08:47:29
End at: 2020-04-16 08:47:59

# Below is generated by plot.py at 2020-04-16 08:56:44
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 8.05 Mbit/s (13.4% utilization)
95th percentile per-packet one-way delay: 11.905 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 11.905 ms
Loss rate: 3.48%
```

Run 3: Report of PCC-Allegro — Data Link



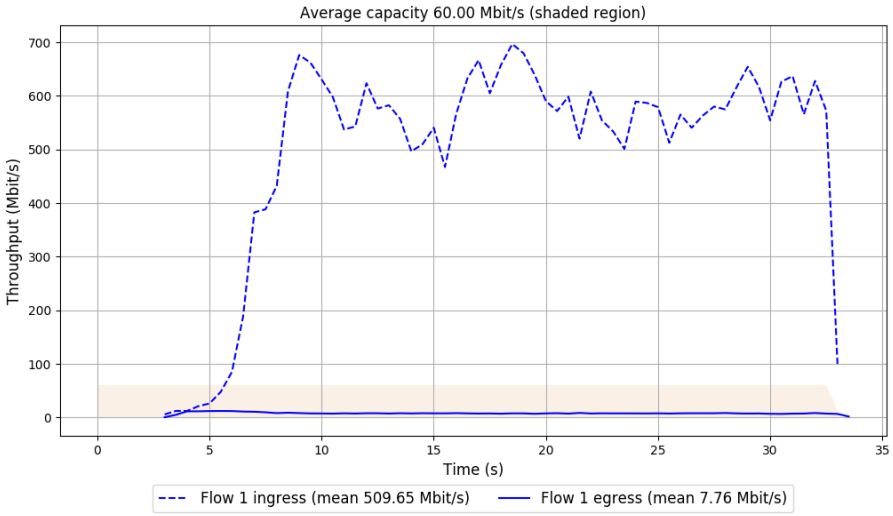


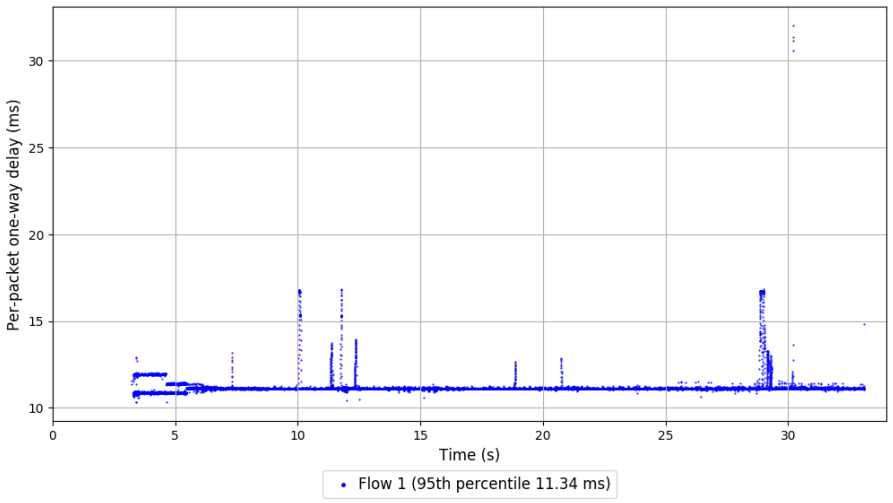
```
Run 1: Statistics of PCC-Expr

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 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.76 Mbit/s (12.9% utilization)
95th percentile per-packet one-way delay: 11.340 ms
Loss rate: 98.48%
-- Flow 1:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 11.340 ms
Loss rate: 98.48%
```

Run 1: Report of PCC-Expr — Data Link



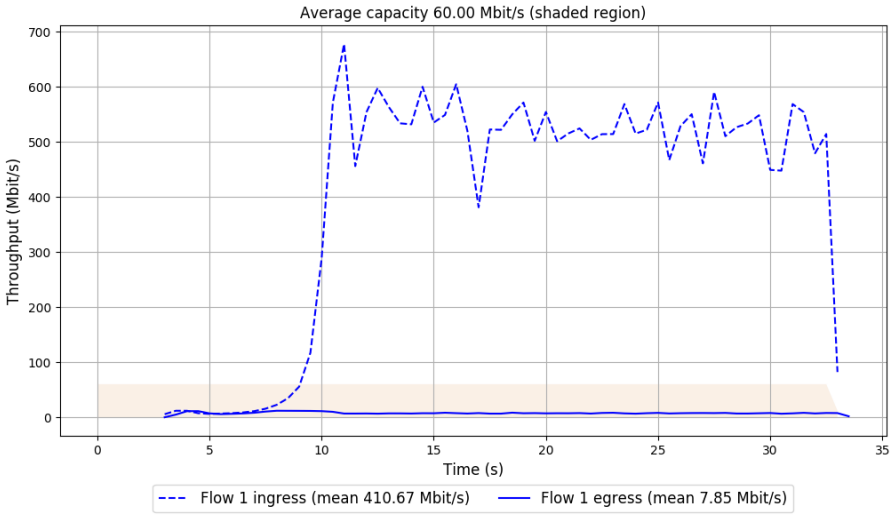


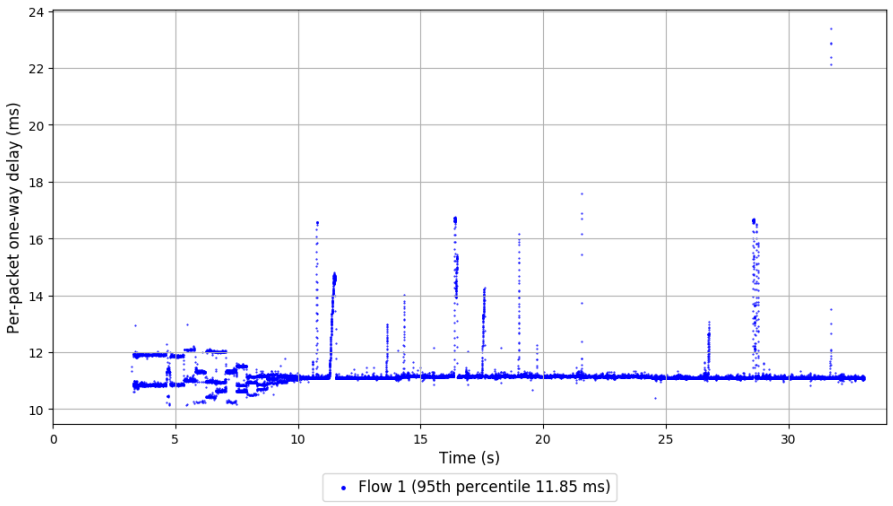
```
Run 2: Statistics of PCC-Expr

Start at: 2020-04-16 08:25:07
End at: 2020-04-16 08:25:37

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.85 Mbit/s (13.1% utilization)
95th percentile per-packet one-way delay: 11.853 ms
Loss rate: 98.09%
-- Flow 1:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 11.853 ms
Loss rate: 98.09%
```

Run 2: Report of PCC-Expr — Data Link



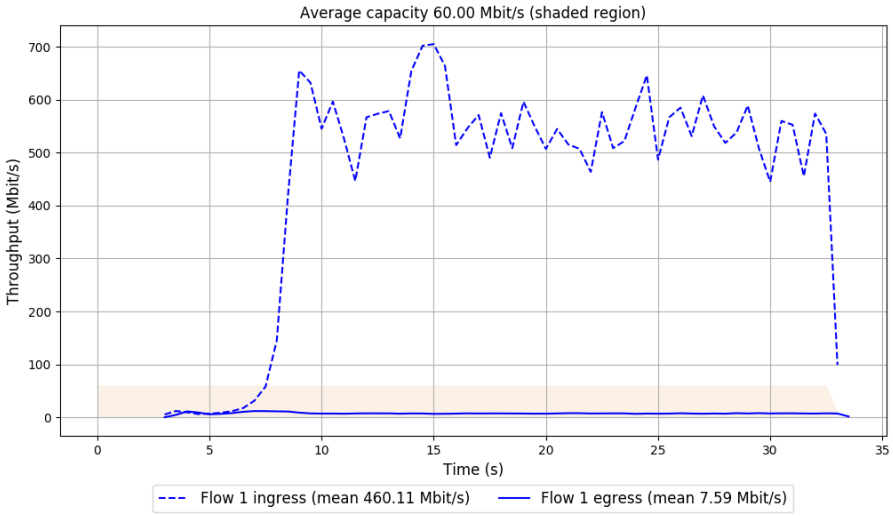


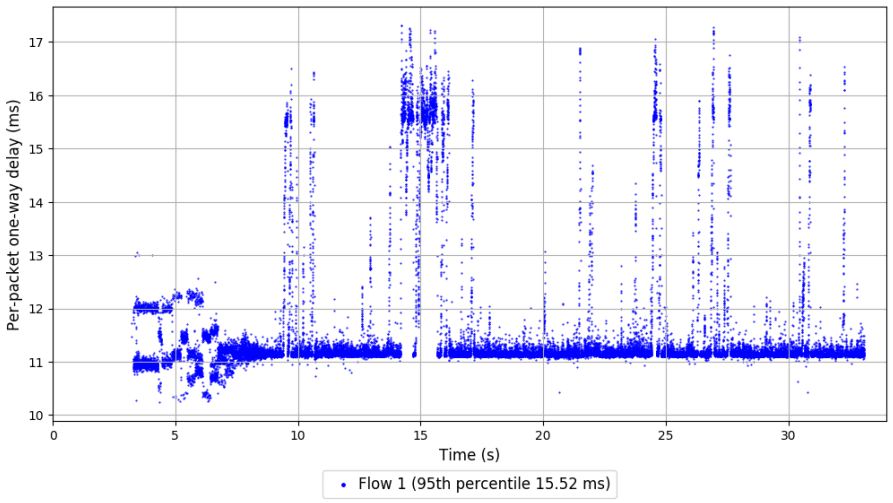
```
Run 3: Statistics of PCC-Expr

Start at: 2020-04-16 08:39:31
End at: 2020-04-16 08:40:01

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.59 Mbit/s (12.6% utilization)
95th percentile per-packet one-way delay: 15.520 ms
Loss rate: 98.35%
-- Flow 1:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 15.520 ms
Loss rate: 98.35%
```

Run 3: Report of PCC-Expr — Data Link



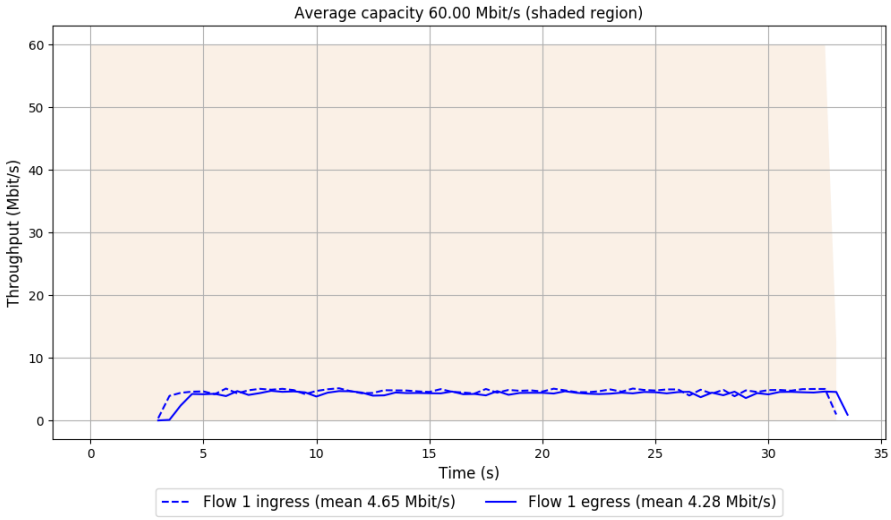


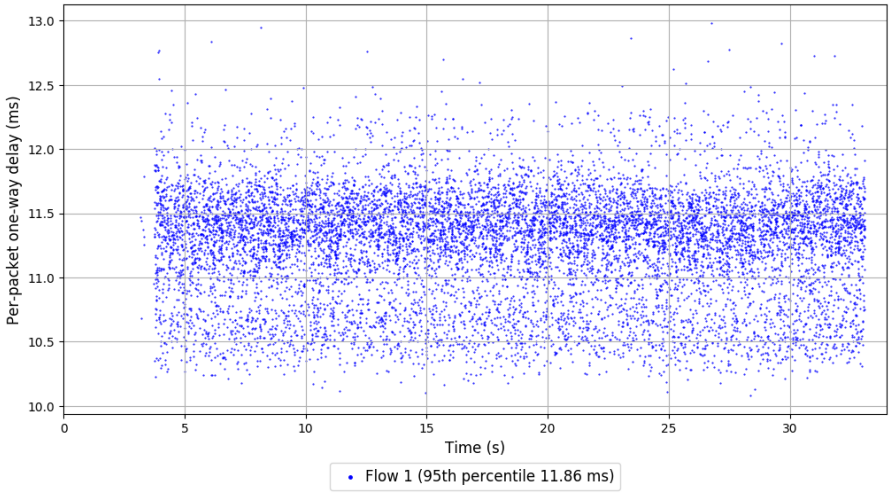
```
Run 1: Statistics of QUIC Cubic

Start at: 2020-04-16 08:18:03
End at: 2020-04-16 08:18:33

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 4.28 Mbit/s (7.1% utilization)
95th percentile per-packet one-way delay: 11.857 ms
Loss rate: 8.10%
-- Flow 1:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 11.857 ms
Loss rate: 8.10%
```

Run 1: Report of QUIC Cubic — Data Link



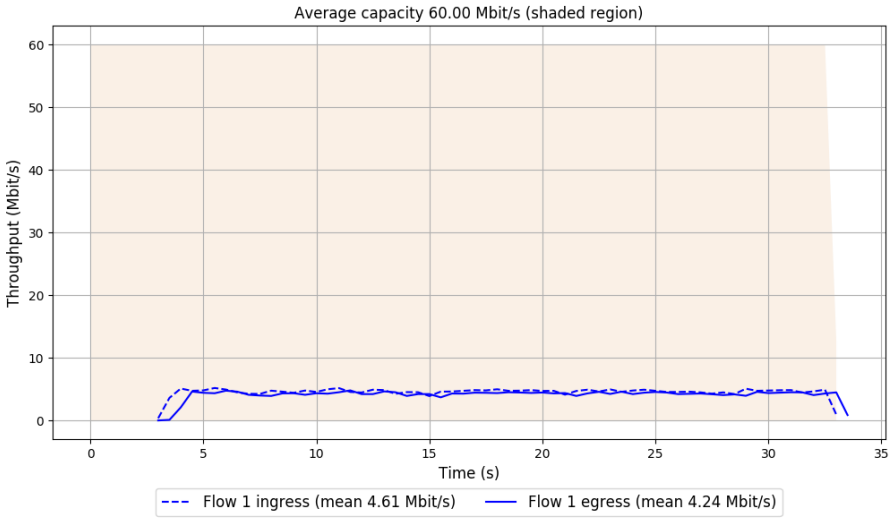


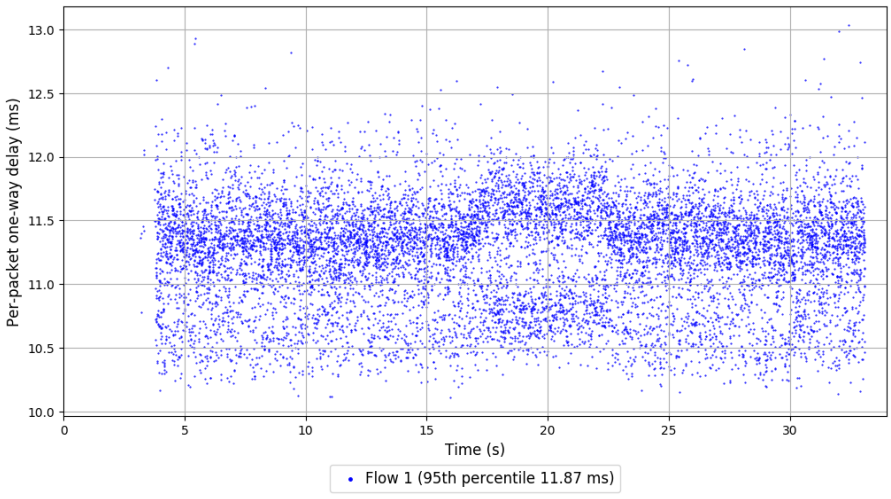
```
Run 2: Statistics of QUIC Cubic

Start at: 2020-04-16 08:32:25
End at: 2020-04-16 08:32:55

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 4.24 Mbit/s (7.1% utilization)
95th percentile per-packet one-way delay: 11.870 ms
Loss rate: 7.93%
-- Flow 1:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 11.870 ms
Loss rate: 7.93%
```

Run 2: Report of QUIC Cubic — Data Link



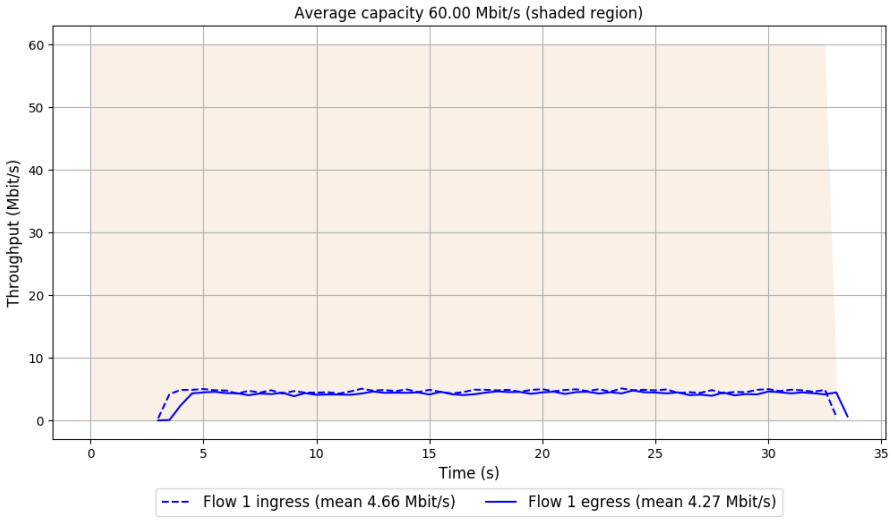


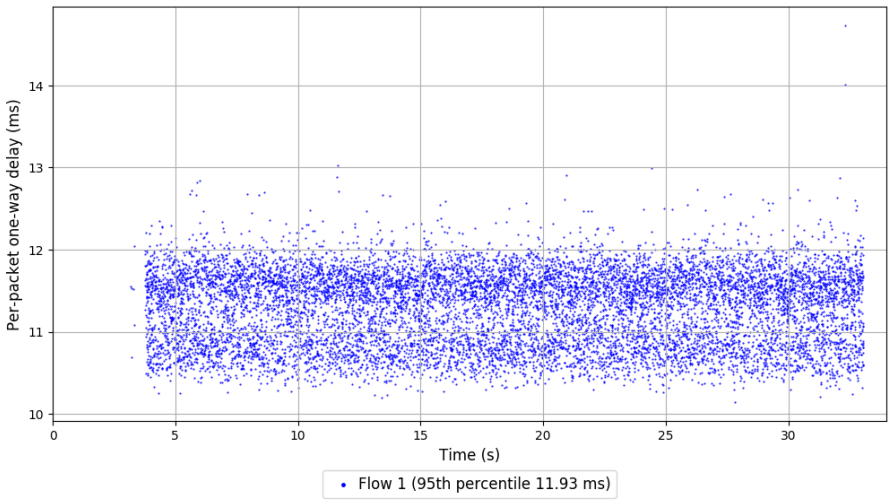
```
Run 3: Statistics of QUIC Cubic

Start at: 2020-04-16 08:46:53
End at: 2020-04-16 08:47:23

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 4.27 Mbit/s (7.1% utilization)
95th percentile per-packet one-way delay: 11.926 ms
Loss rate: 8.49%
-- Flow 1:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 11.926 ms
Loss rate: 8.49%
```

Run 3: Report of QUIC Cubic — Data Link



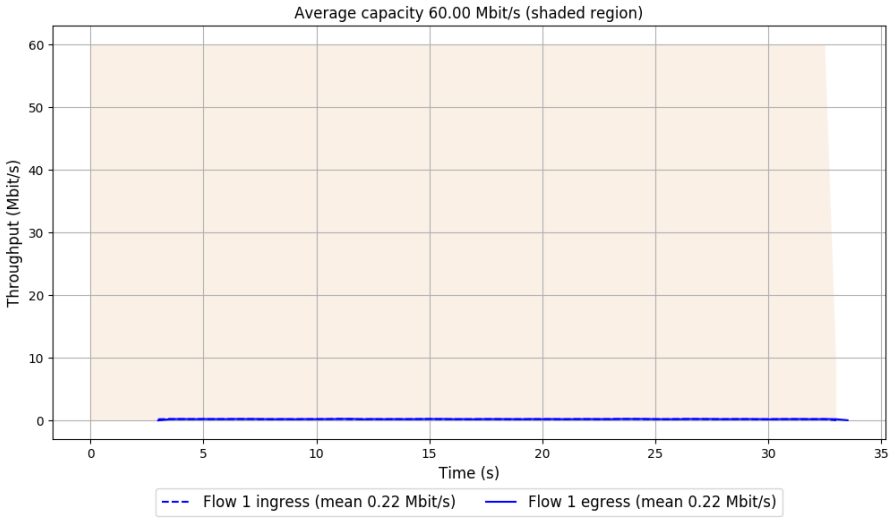


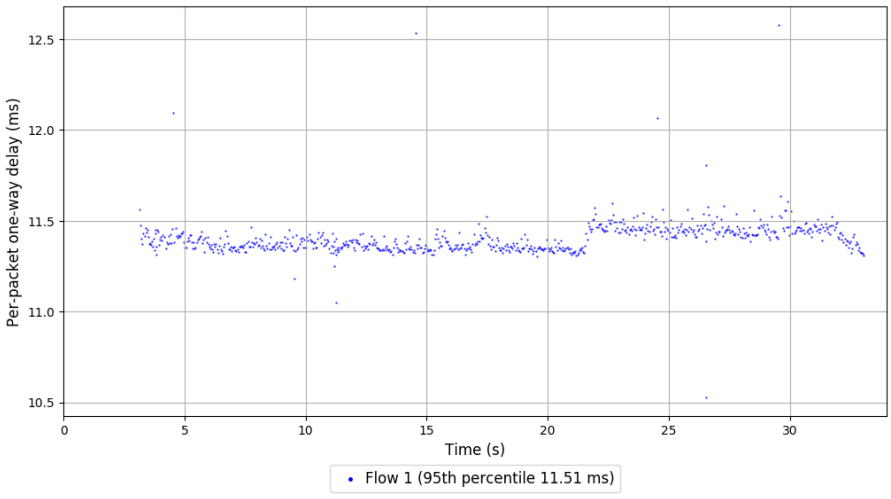
```
Run 1: Statistics of SCReAM

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

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.507 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



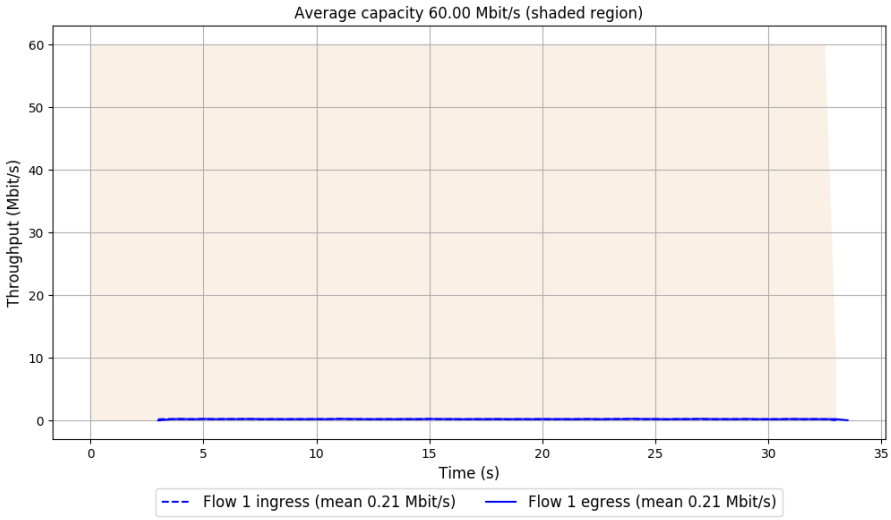


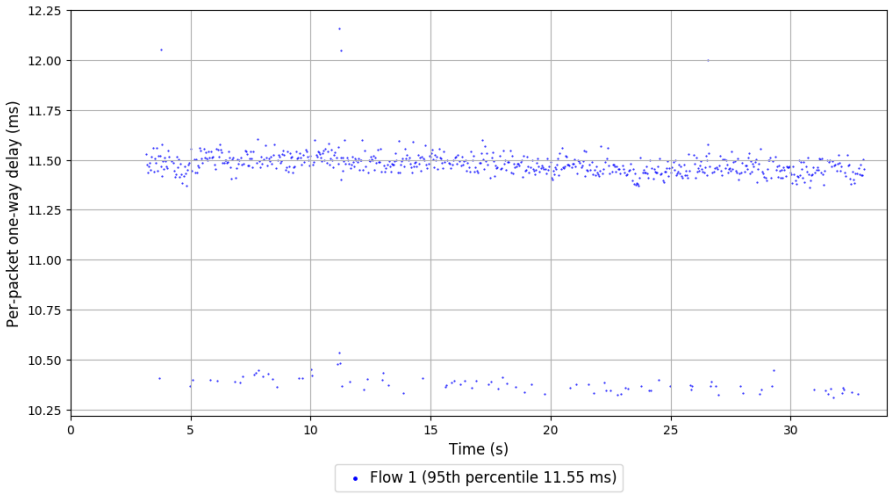
```
Run 2: Statistics of SCReAM

Start at: 2020-04-16 08:34:12
End at: 2020-04-16 08:34:42

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 11.551 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



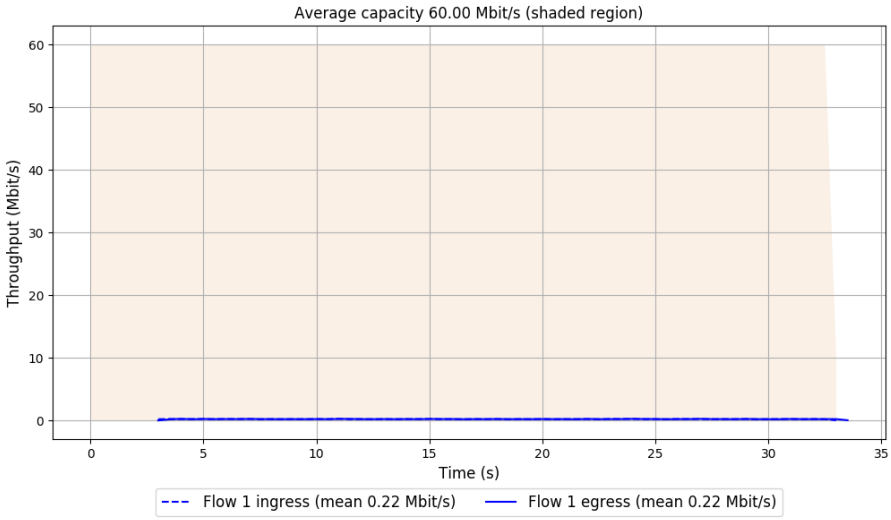


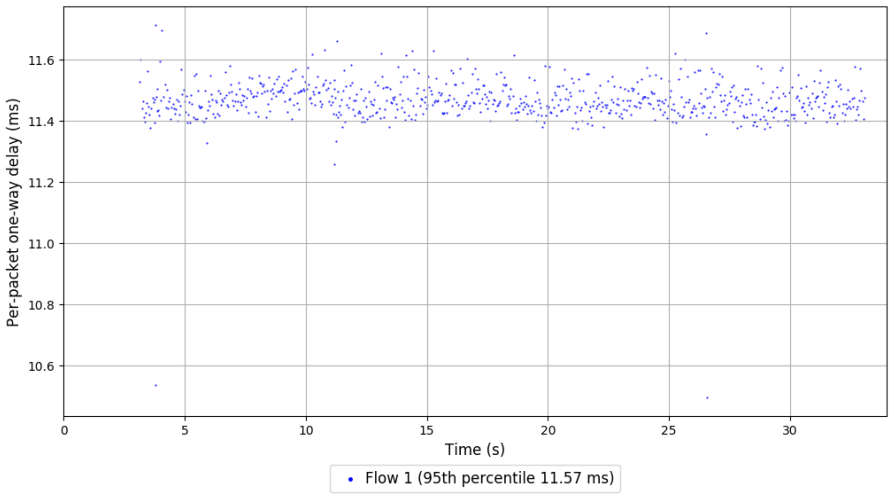
```
Run 3: Statistics of SCReAM

Start at: 2020-04-16 08:48:40
End at: 2020-04-16 08:49:10

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 11.566 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



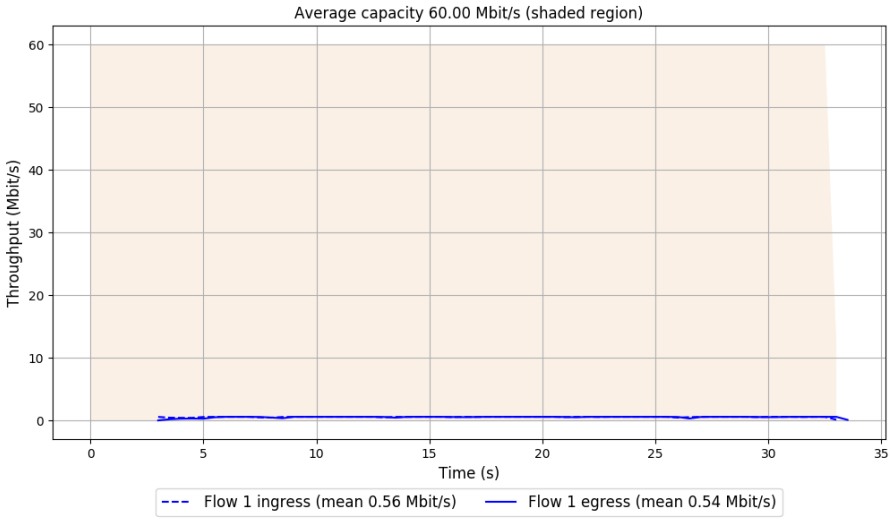


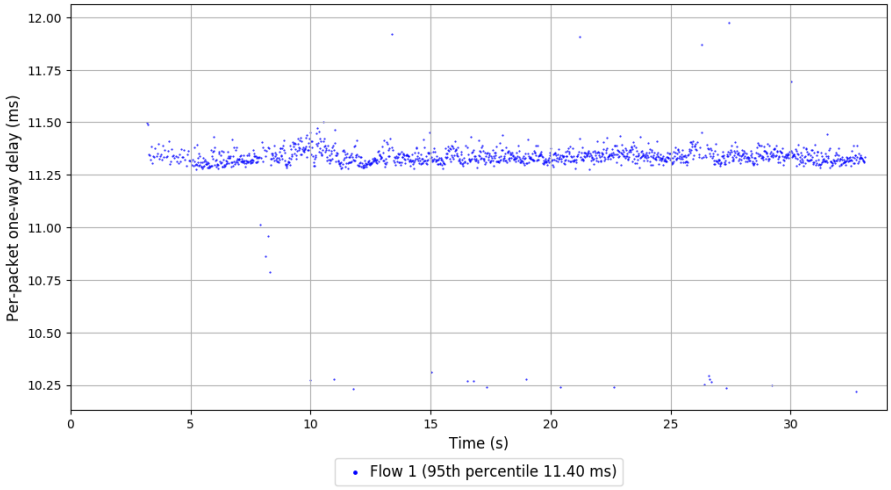
```
Run 1: Statistics of Sprout

Start at: 2020-04-16 08:13:54
End at: 2020-04-16 08:14:24

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.54 Mbit/s (0.9% utilization)
95th percentile per-packet one-way delay: 11.398 ms
Loss rate: 3.66%
-- Flow 1:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 11.398 ms
Loss rate: 3.66%
```

Run 1: Report of Sprout — Data Link



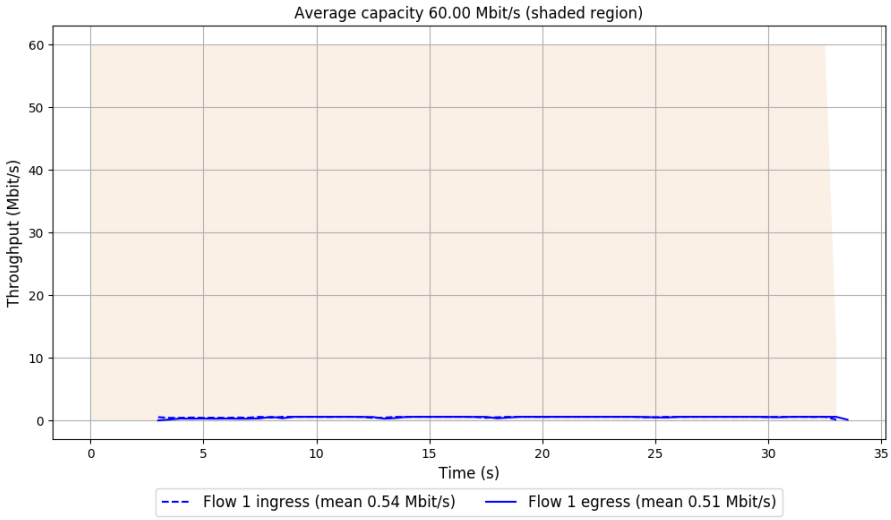


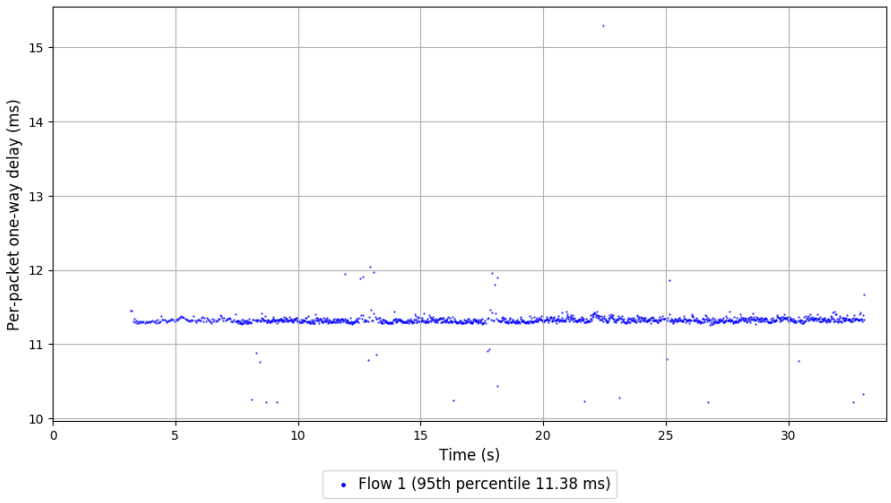
```
Run 2: Statistics of Sprout

Start at: 2020-04-16 08:28:16
End at: 2020-04-16 08:28:46

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.51 Mbit/s (0.9% utilization)
95th percentile per-packet one-way delay: 11.385 ms
Loss rate: 6.17%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 11.385 ms
Loss rate: 6.17%
```

Run 2: Report of Sprout — Data Link



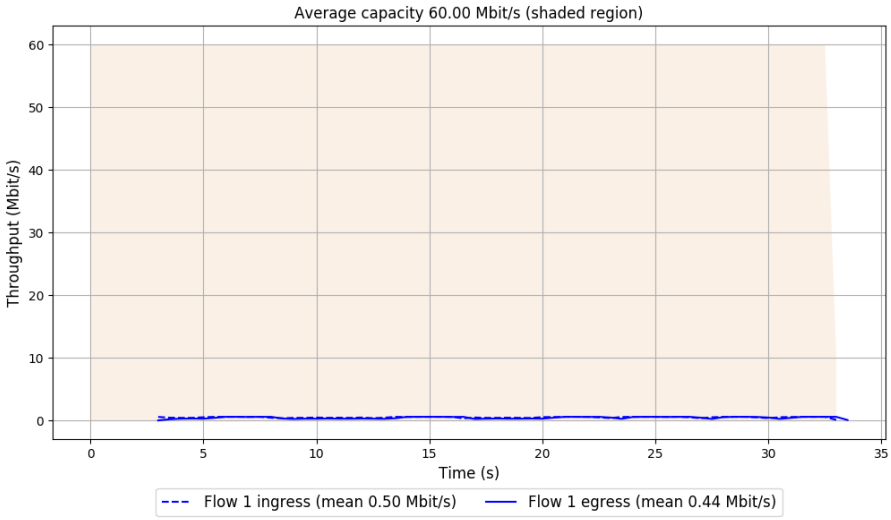


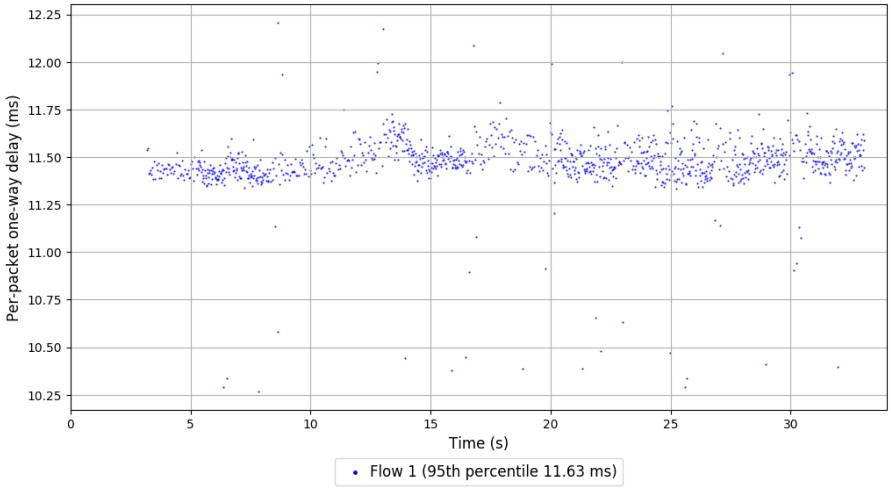
```
Run 3: Statistics of Sprout

Start at: 2020-04-16 08:42:41
End at: 2020-04-16 08:43:11

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 0.44 Mbit/s (0.7% utilization)
95th percentile per-packet one-way delay: 11.634 ms
Loss rate: 13.13%
-- Flow 1:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 11.634 ms
Loss rate: 13.13%
```

Run 3: Report of Sprout — Data Link



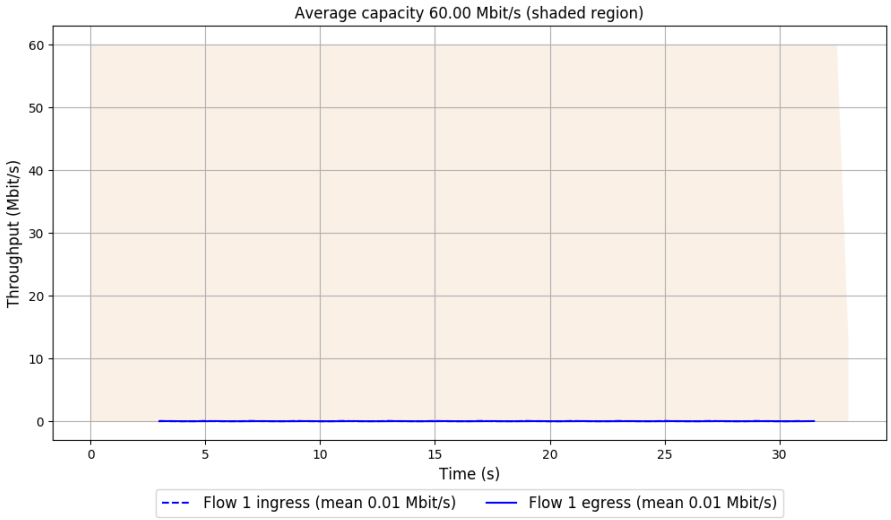


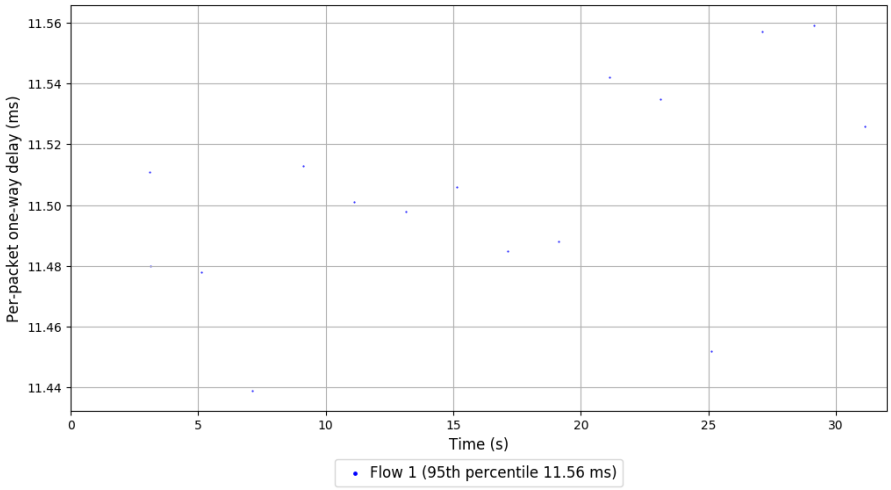
```
Run 1: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.557 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.557 ms
Loss rate: 51.91%
```

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



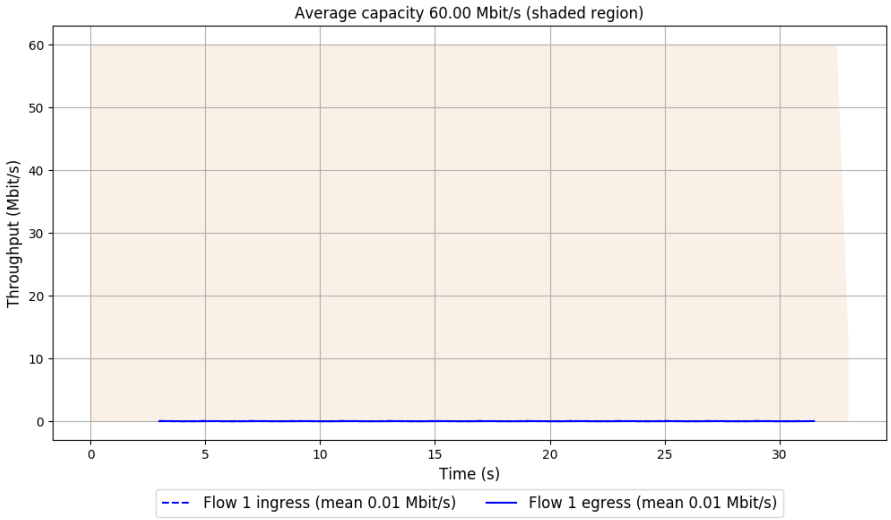


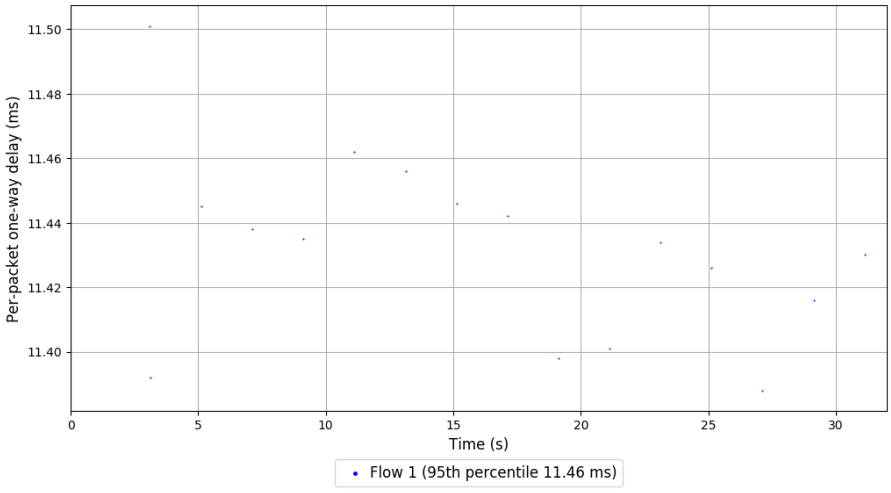
```
Run 2: Statistics of TaoVA-100x

Start at: 2020-04-16 08:30:40
End at: 2020-04-16 08:31:10

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.462 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.462 ms
Loss rate: 51.91%
```

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



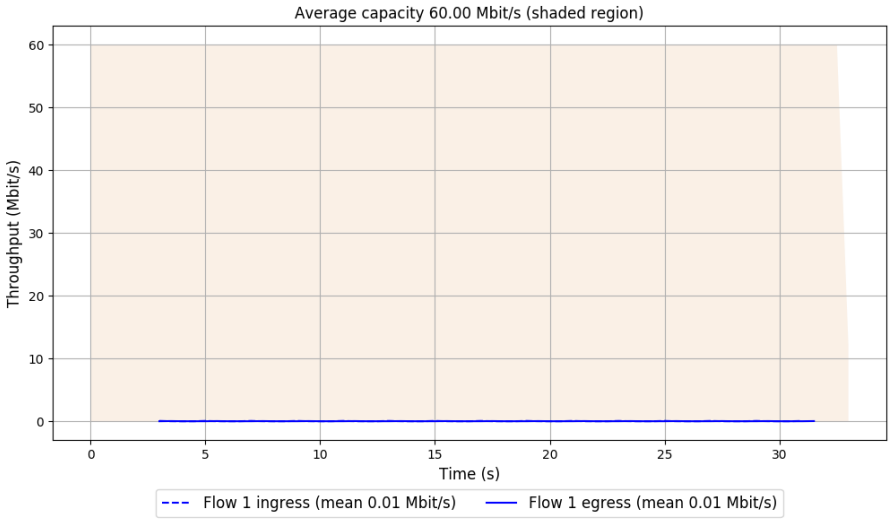


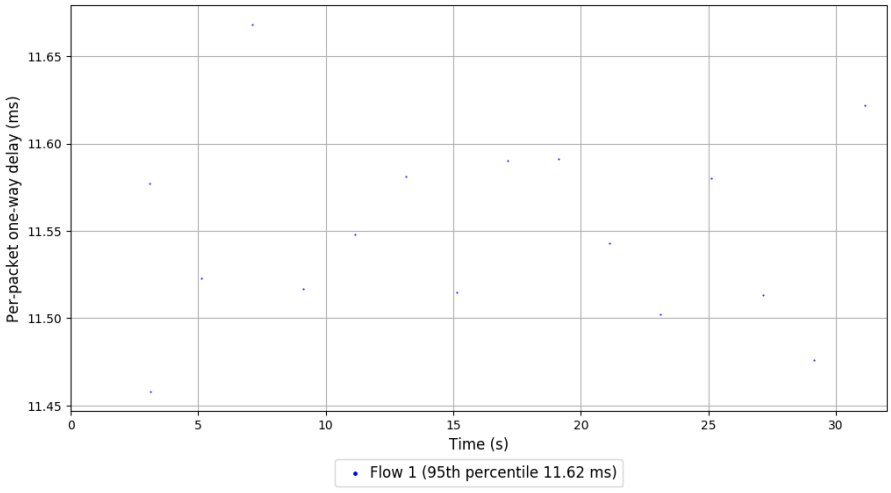
```
Run 3: Statistics of TaoVA-100x

Start at: 2020-04-16 08:45:07
End at: 2020-04-16 08:45:37

# Below is generated by plot.py at 2020-04-16 08:59:24
# 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: 11.622 ms
Loss rate: 51.91%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 11.622 ms
Loss rate: 51.91%
```

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



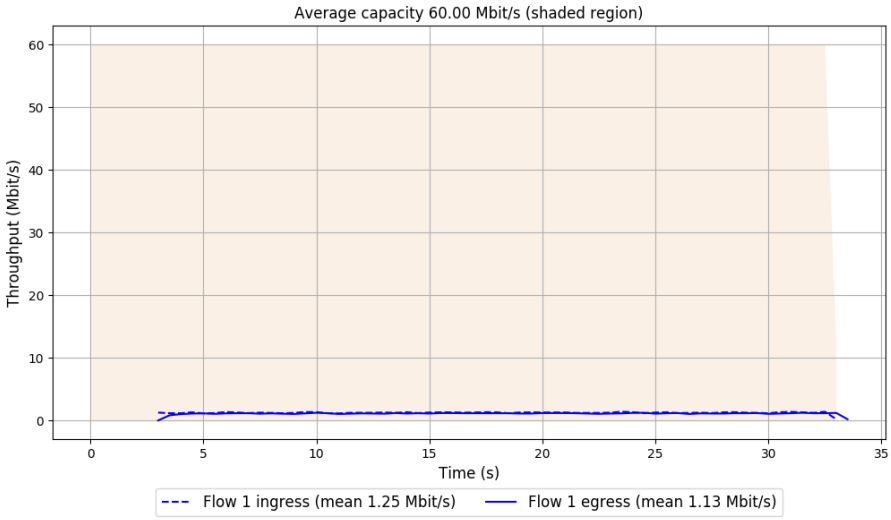


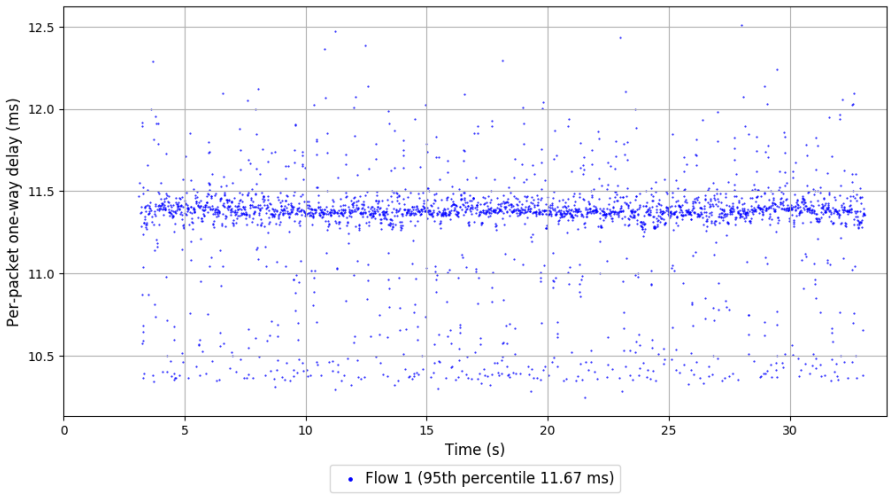
```
Run 1: Statistics of TCP Vegas

Start at: 2020-04-16 08:21:35
End at: 2020-04-16 08:22:05

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.13 Mbit/s (1.9% utilization)
95th percentile per-packet one-way delay: 11.673 ms
Loss rate: 9.79%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 11.673 ms
Loss rate: 9.79%
```

Run 1: Report of TCP Vegas — Data Link



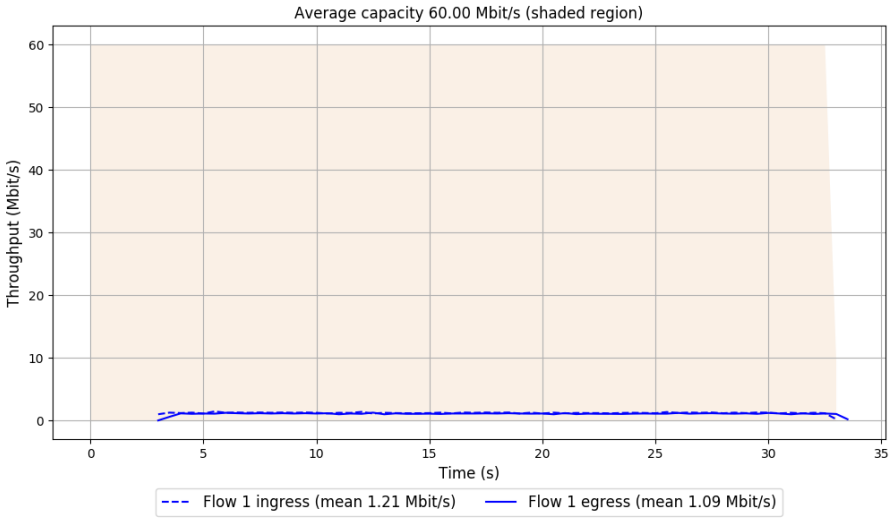


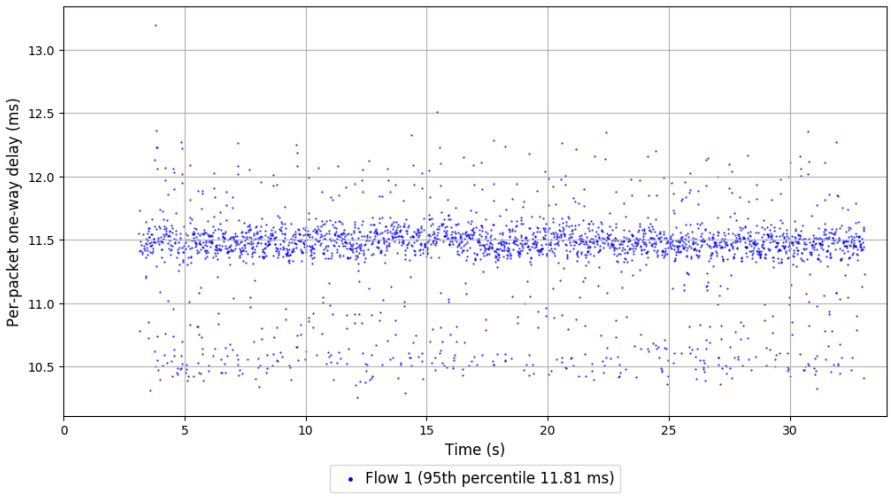
```
Run 2: Statistics of TCP Vegas

Start at: 2020-04-16 08:35:58
End at: 2020-04-16 08:36:28

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.09 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.815 ms
Loss rate: 9.87%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 11.815 ms
Loss rate: 9.87%
```

Run 2: Report of TCP Vegas — Data Link



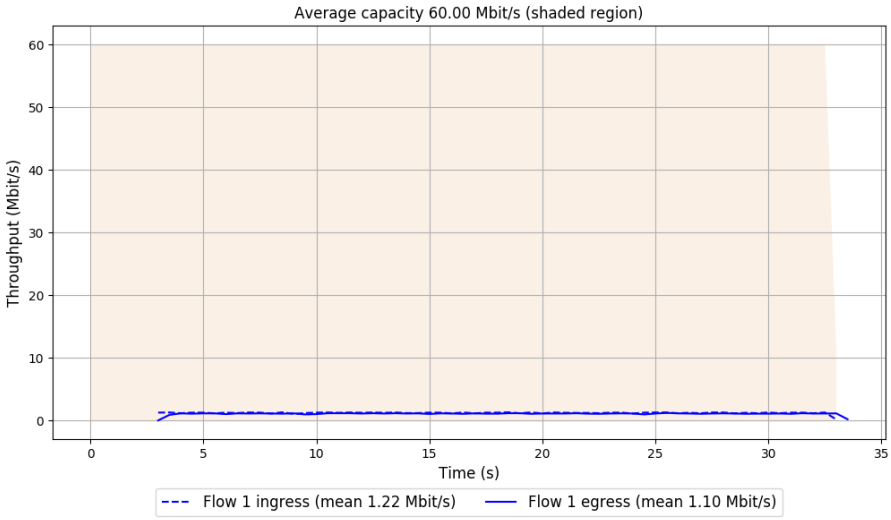


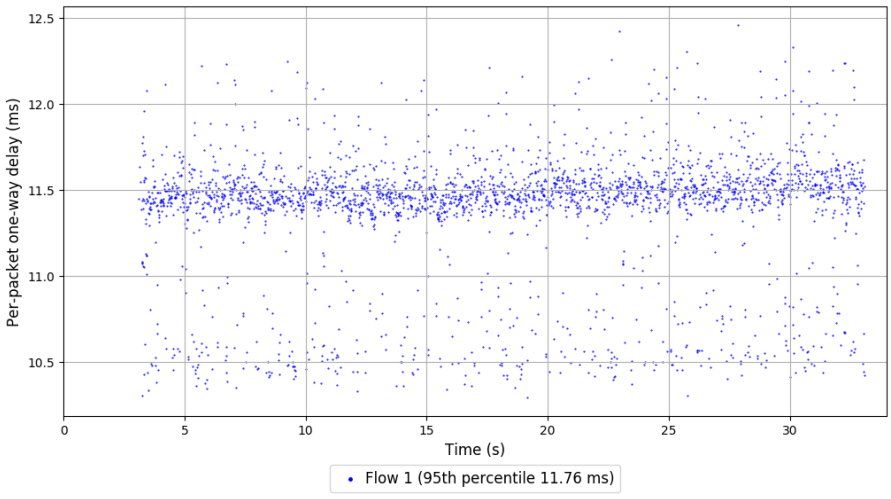
```
Run 3: Statistics of TCP Vegas

Start at: 2020-04-16 08:50:26
End at: 2020-04-16 08:50:56

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 1.10 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 11.760 ms
Loss rate: 9.65%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 11.760 ms
Loss rate: 9.65%
```

Run 3: Report of TCP Vegas — Data Link



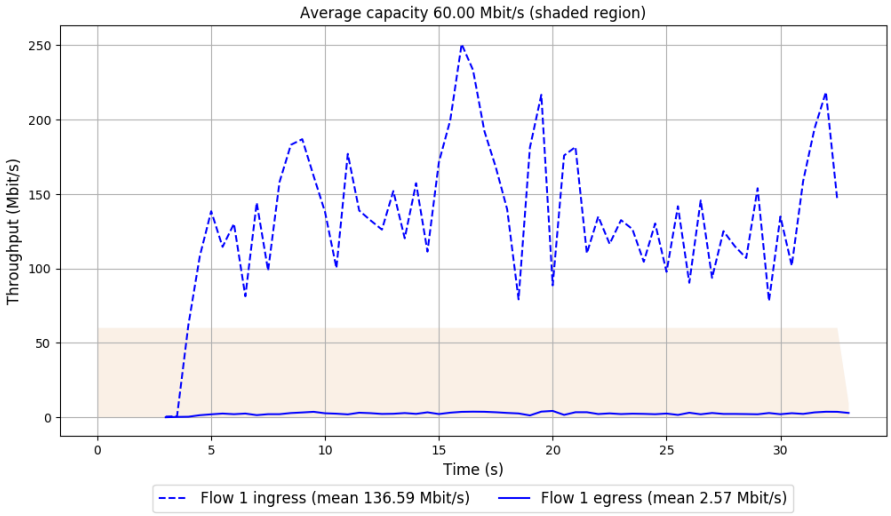


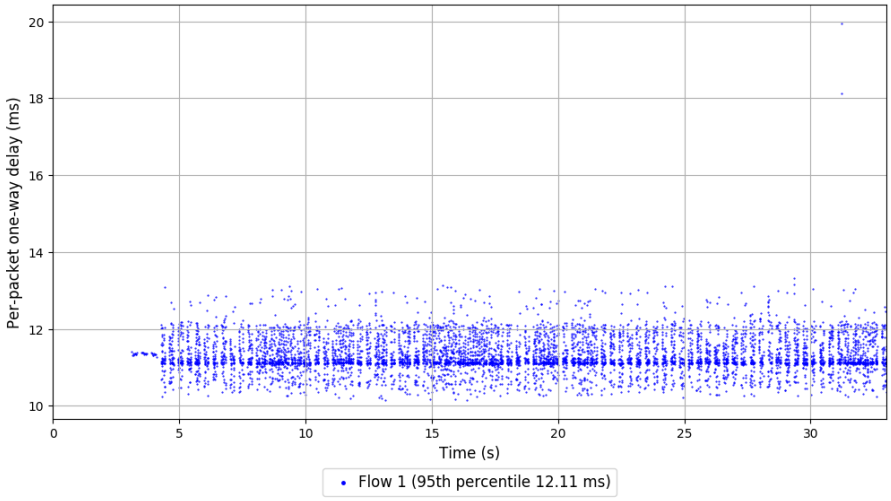
```
Run 1: Statistics of Verus

Start at: 2020-04-16 08:15:40
End at: 2020-04-16 08:16:10

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.57 Mbit/s (4.3% utilization)
95th percentile per-packet one-way delay: 12.110 ms
Loss rate: 98.12%
-- Flow 1:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 12.110 ms
Loss rate: 98.12%
```

Run 1: Report of Verus — Data Link



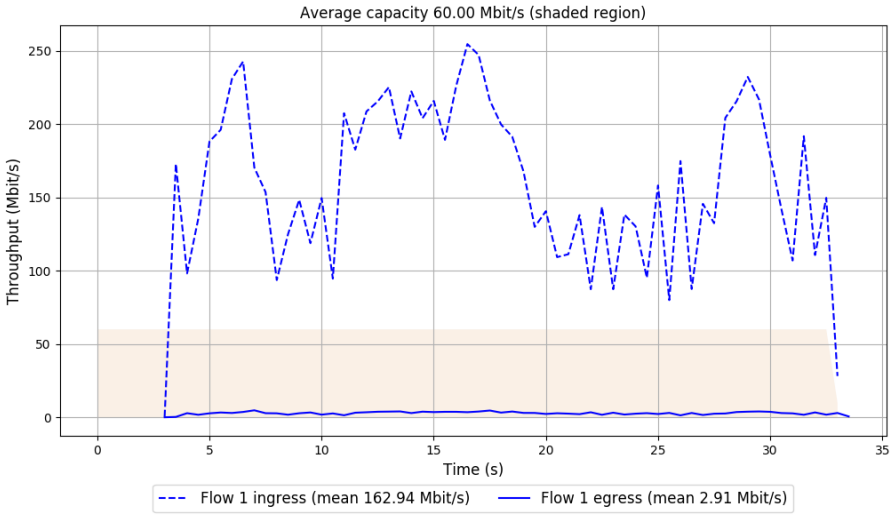


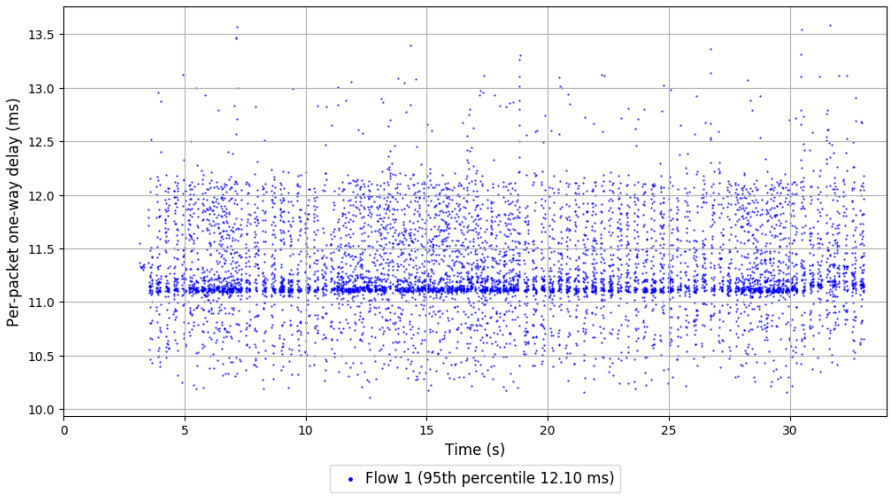
```
Run 2: Statistics of Verus

Start at: 2020-04-16 08:30:02
End at: 2020-04-16 08:30:32

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 2.91 Mbit/s (4.8% utilization)
95th percentile per-packet one-way delay: 12.096 ms
Loss rate: 98.21%
-- Flow 1:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 12.096 ms
Loss rate: 98.21%
```

Run 2: Report of Verus — Data Link



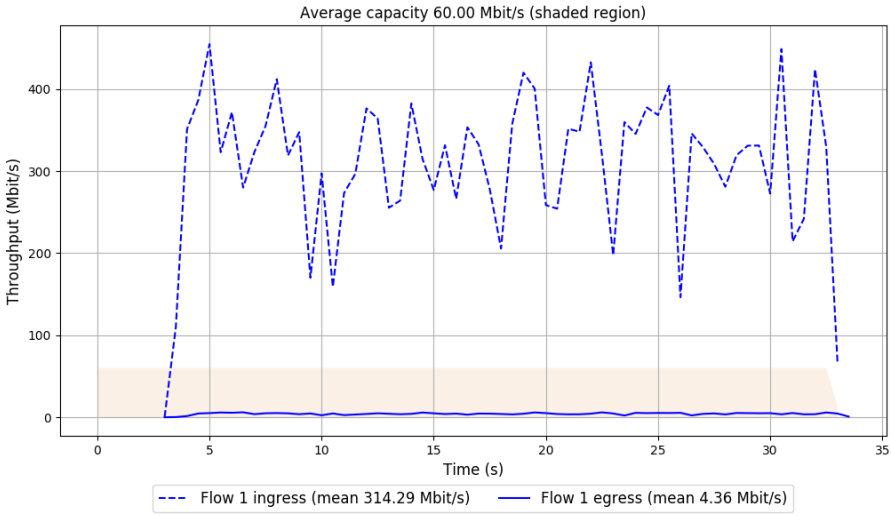


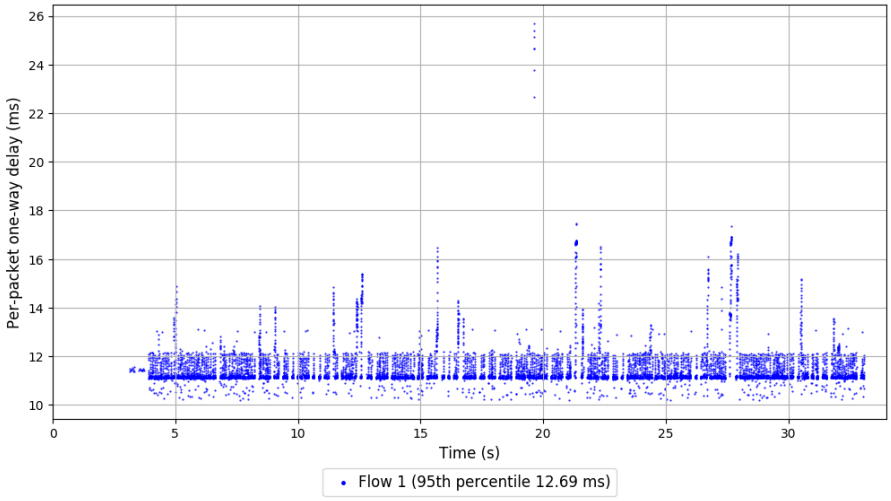
```
Run 3: Statistics of Verus

Start at: 2020-04-16 08:44:27
End at: 2020-04-16 08:44:57

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 4.36 Mbit/s (7.3% utilization)
95th percentile per-packet one-way delay: 12.692 ms
Loss rate: 98.61%
-- Flow 1:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 12.692 ms
Loss rate: 98.61%
```

Run 3: Report of Verus — Data Link



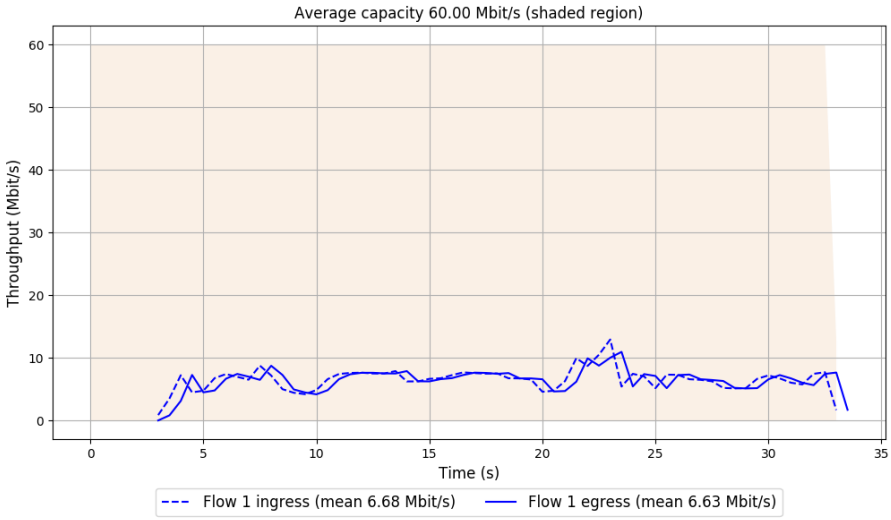


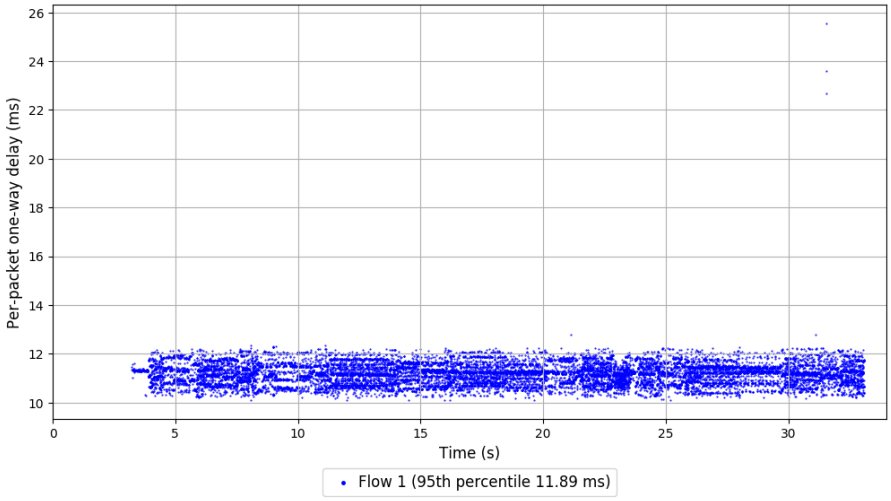
```
Run 1: Statistics of PCC-Vivace

Start at: 2020-04-16 08:24:32
End at: 2020-04-16 08:25:02

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 6.63 Mbit/s (11.0% utilization)
95th percentile per-packet one-way delay: 11.889 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 11.889 ms
Loss rate: 0.76%
```

Run 1: Report of PCC-Vivace — Data Link



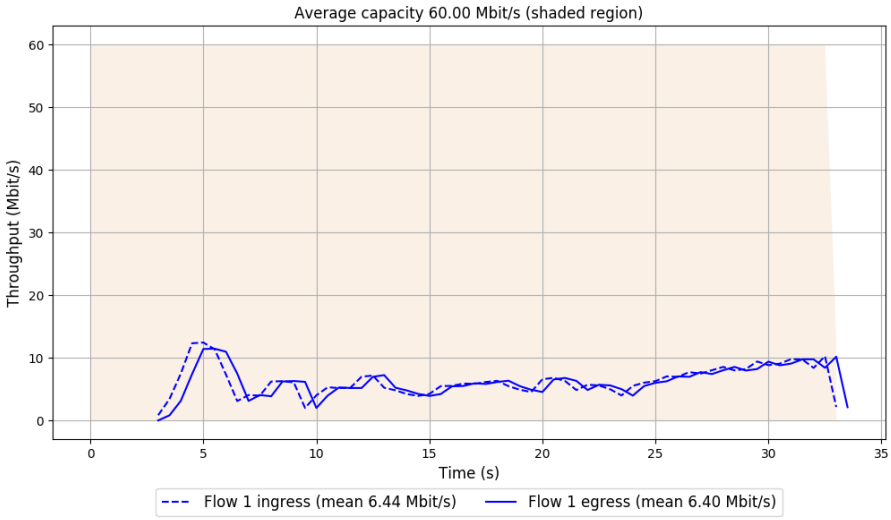


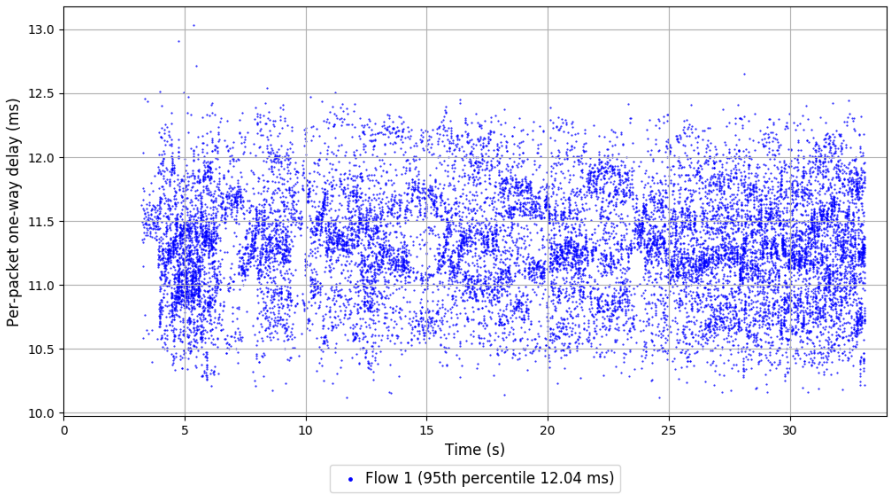
```
Run 2: Statistics of PCC-Vivace

Start at: 2020-04-16 08:38:55
End at: 2020-04-16 08:39:25

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 6.40 Mbit/s (10.7% utilization)
95th percentile per-packet one-way delay: 12.039 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 12.039 ms
Loss rate: 0.76%
```

Run 2: Report of PCC-Vivace — Data Link



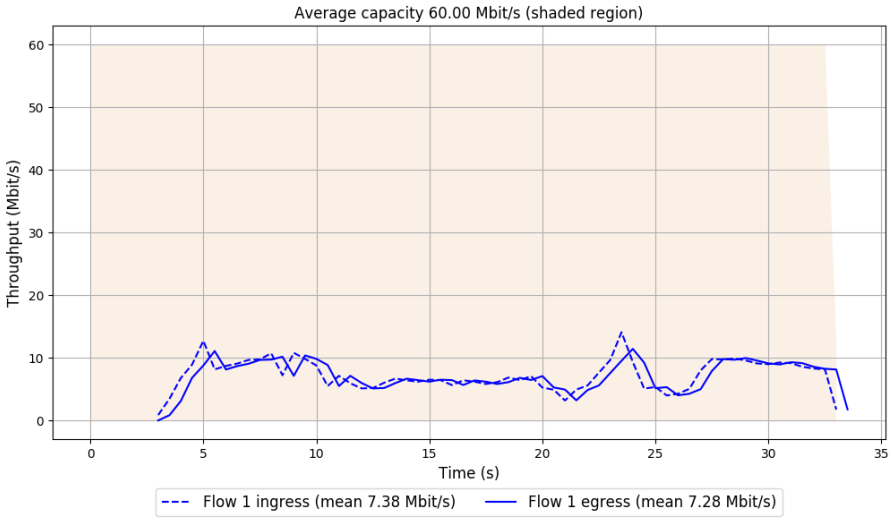


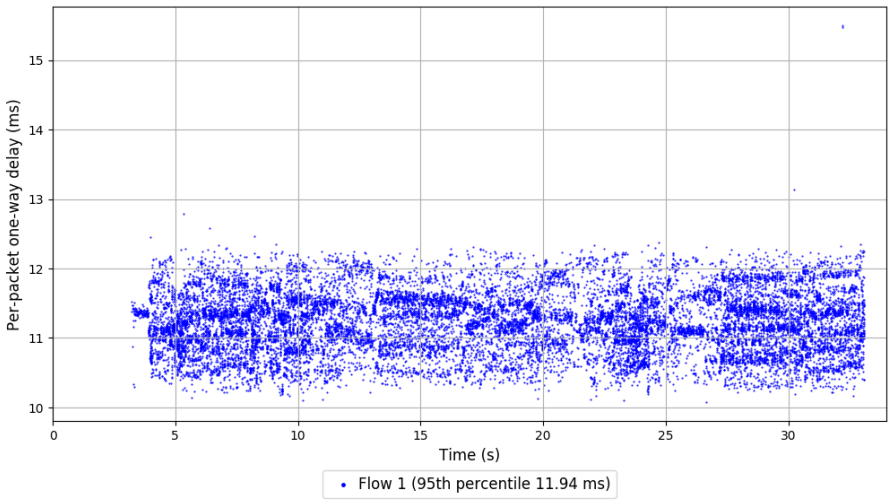
```
Run 3: Statistics of PCC-Vivace

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

# Below is generated by plot.py at 2020-04-16 08:59:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 60.00 Mbit/s
Average throughput: 7.28 Mbit/s (12.1% utilization)
95th percentile per-packet one-way delay: 11.938 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 11.938 ms
Loss rate: 1.40%
```

Run 3: Report of PCC-Vivace — Data Link

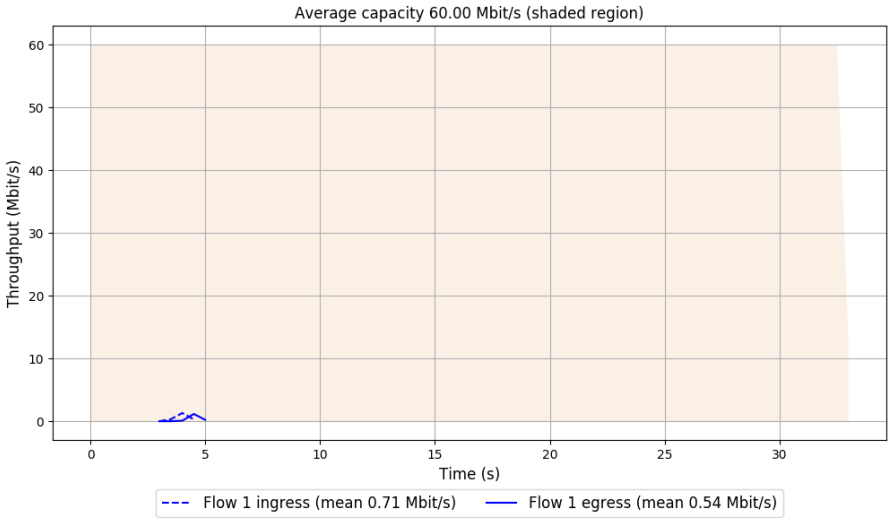


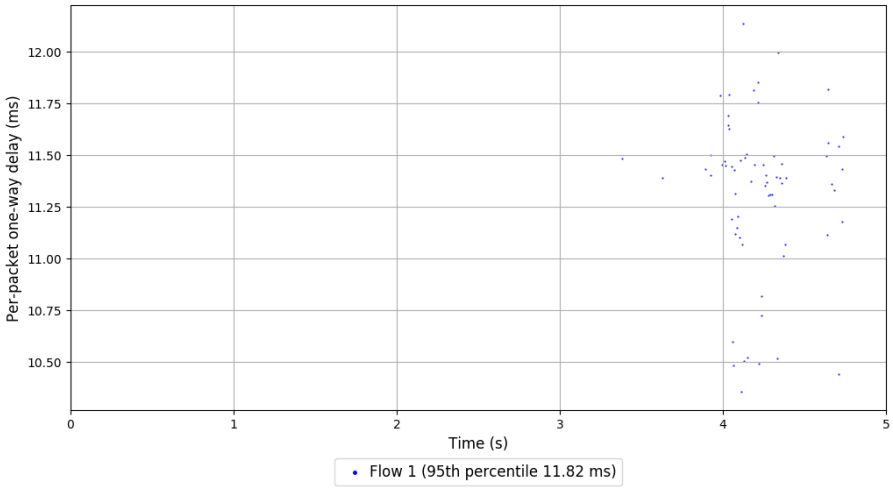


```
Run 1: Statistics of WebRTC media

Start at: 2020-04-16 08:19:14
End at: 2020-04-16 08:19:44
```

Run 1: Report of WebRTC media — Data Link

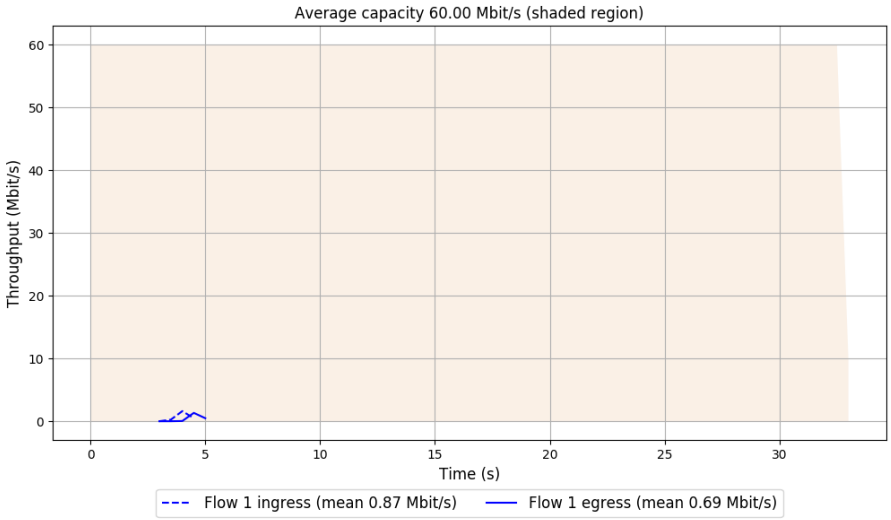


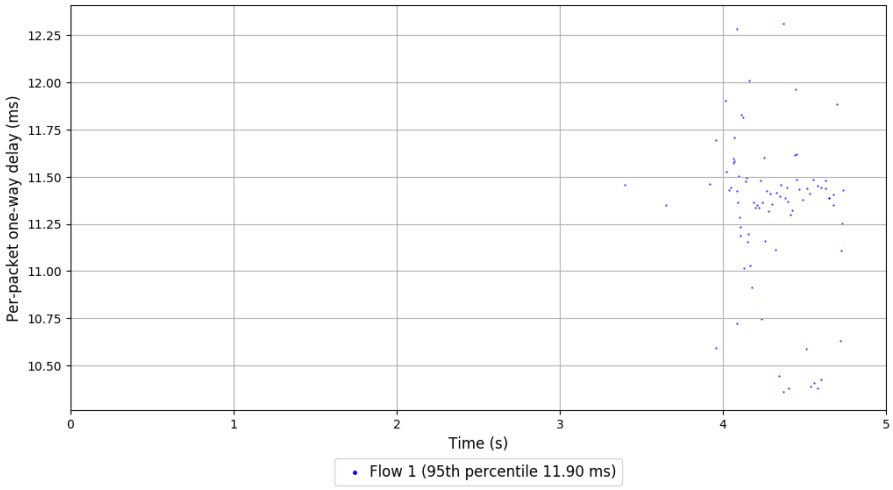


```
Run 2: Statistics of WebRTC media

Start at: 2020-04-16 08:33:36
End at: 2020-04-16 08:34:06
```

Run 2: Report of WebRTC media — Data Link





```
Run 3: Statistics of WebRTC media

Start at: 2020-04-16 08:48:05
End at: 2020-04-16 08:48:35
```

Run 3: Report of WebRTC media — Data Link