Pantheon Report

Generated at 2020-04-16 09:48:36 (UTC).

Tested in mahimahi: `mm-delay 30 mm-link 12mbps.trace 12mbps.trace --uplink-queue=droptail --uplink-queue-args=bytes=9000`

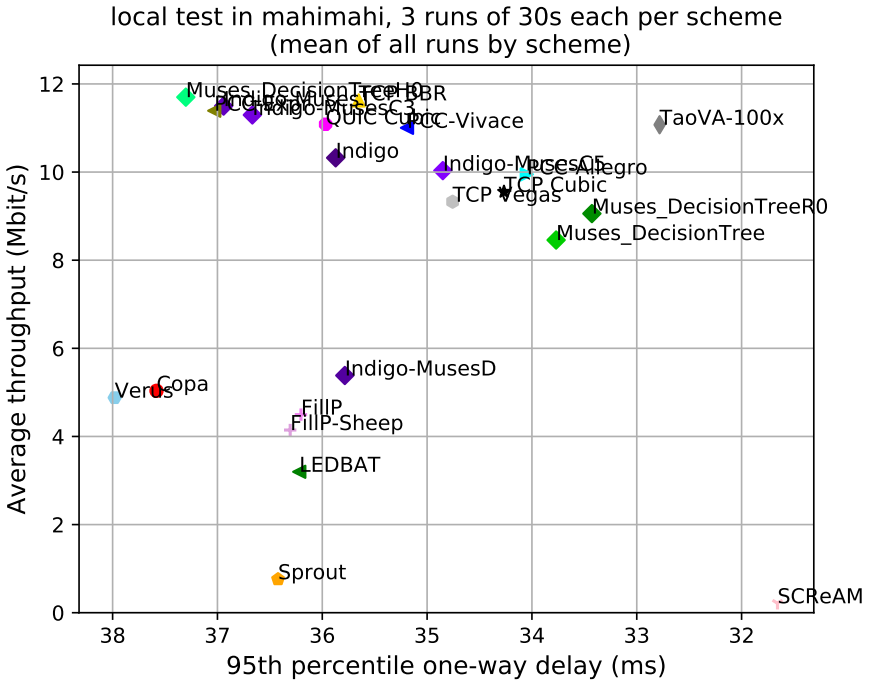
Repeated the test of 24 congestion control schemes 3 times.

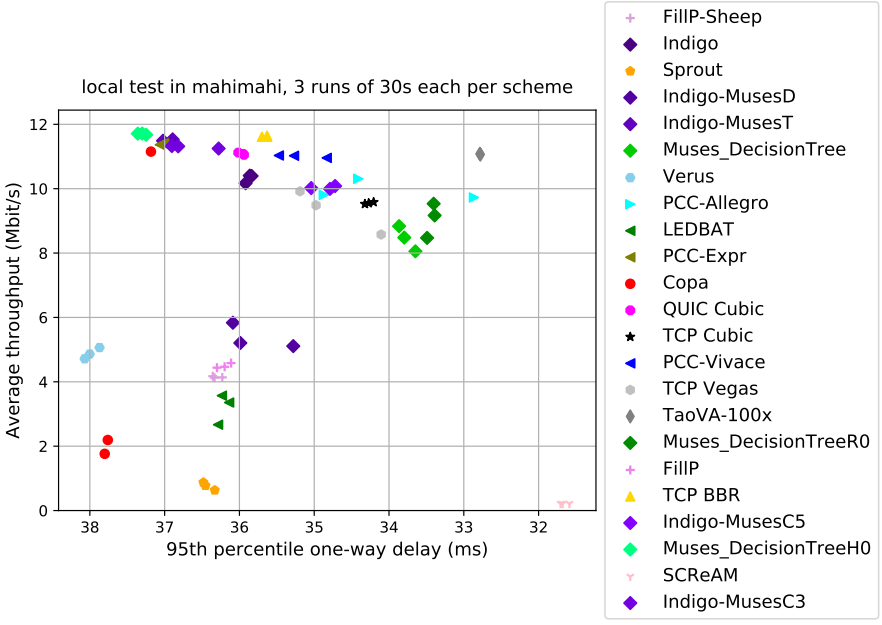
Each test lasted for 30 seconds running 1 flow.

```
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)
TaoVA-100x
PCC-Vivace
Indigo
TCP Cubic
TCP Vegas
Muses_DecisionTreeR0
Muses_DecisionTree
Indigo-MusesD
Verus
Copa
FillP
FillP-Sheep
LEDBAT
Sprout
SCReAM


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

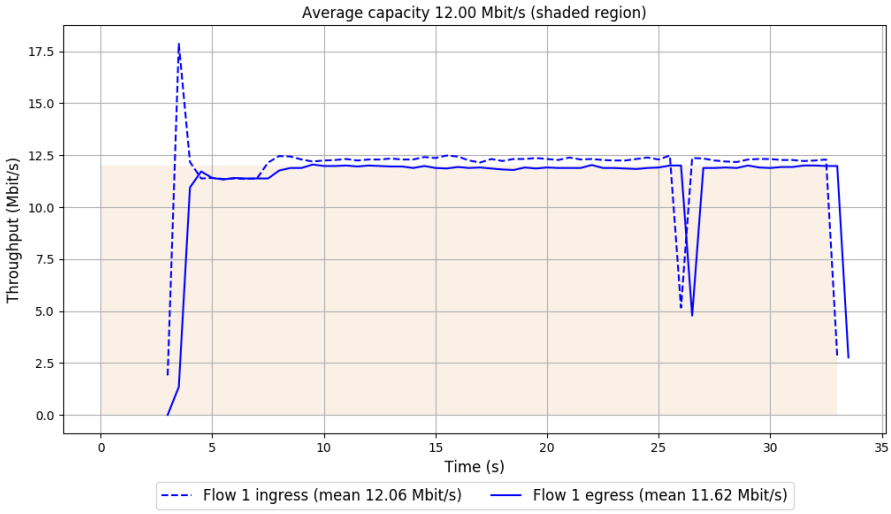
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	11.63	35.65	4.04
Copa	3	5.03	37.58	37.11
TCP Cubic	3	9.55	34.27	0.19
FillP	3	4.50	36.20	13.95
FillP-Sheep	3	4.15	36.31	10.64
Indigo	3	10.32	35.87	59.29
Indigo-MusesC3	3	11.30	36.67	1.39
Indigo-MusesC5	3	10.03	34.85	0.89
Indigo-MusesD	3	5.39	35.79	6.33
Indigo-MusesT	3	11.50	36.94	1.18
LEDBAT	3	3.20	36.22	2.91
Muses_DecisionTree	3	8.46	33.77	1.15
Muses_DecisionTreeH0	3	11.70	37.30	4.16
Muses_DecisionTreeR0	3	9.06	33.43	1.02
PCC-Allegro	3	9.95	34.05	0.82
PCC-Expr	3	11.39	37.03	2.26
QUIC Cubic	3	11.08	35.97	0.47
SCReAM	3	0.21	31.66	0.09
Sprout	3	0.76	36.42	11.71
TaoVA-100x	3	11.07	32.78	0.82
TCP Vegas	3	9.33	34.76	0.21
Verus	3	4.88	37.98	95.29
PCC-Vivace	3	11.00	35.19	0.28
WebRTC media	0	N/A	N/A	N/A

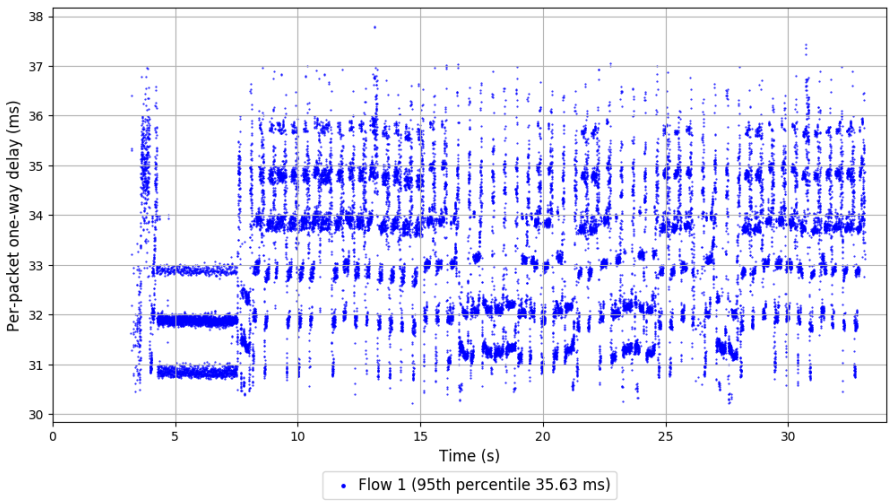
```
Run 1: Statistics of TCP BBR

Start at: 2020-04-16 09:03:01
End at: 2020-04-16 09:03:31

# Below is generated by plot.py at 2020-04-16 09:45:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.62 Mbit/s (96.8% utilization)
95th percentile per-packet one-way delay: 35.629 ms
Loss rate: 3.79%
-- Flow 1:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 35.629 ms
Loss rate: 3.79%
```

Run 1: Report of TCP BBR — Data Link



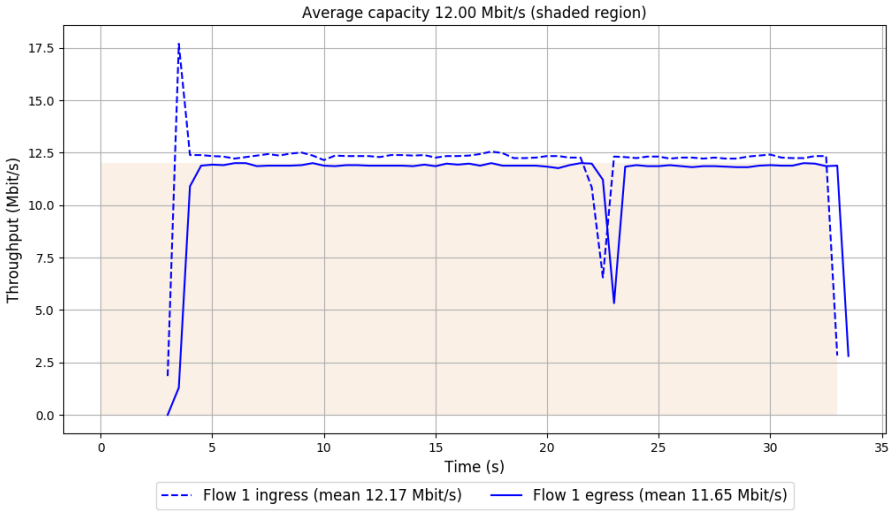


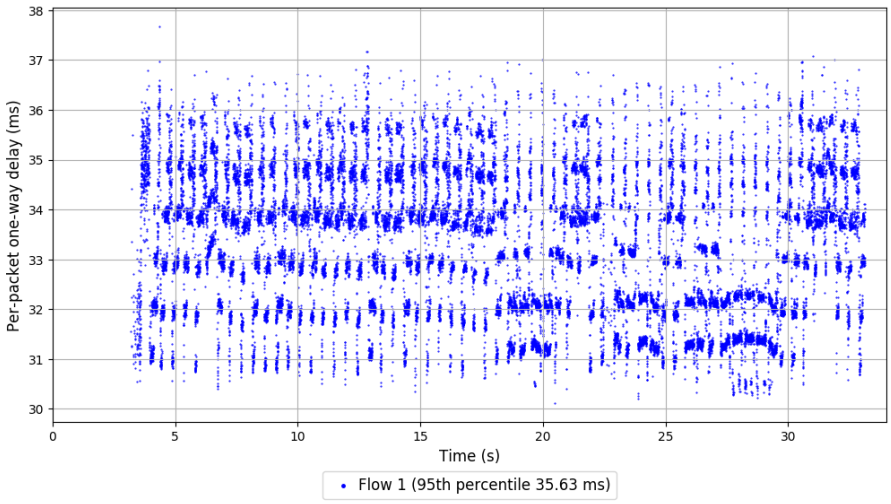
```
Run 2: Statistics of TCP BBR

Start at: 2020-04-16 09:17:10
End at: 2020-04-16 09:17:40

# Below is generated by plot.py at 2020-04-16 09:45:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.65 Mbit/s (97.1% utilization)
95th percentile per-packet one-way delay: 35.630 ms
Loss rate: 4.42%
-- Flow 1:
Average throughput: 11.65 Mbit/s
95th percentile per-packet one-way delay: 35.630 ms
Loss rate: 4.42%
```

Run 2: Report of TCP BBR — Data Link



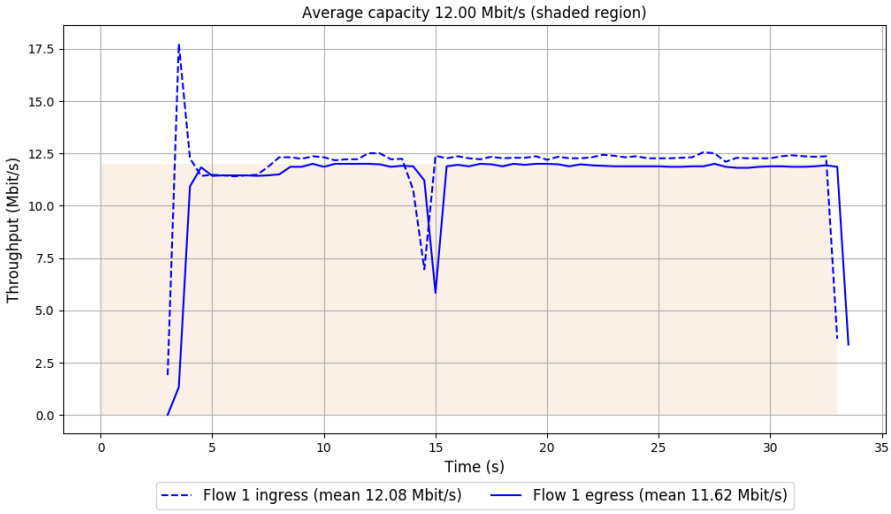


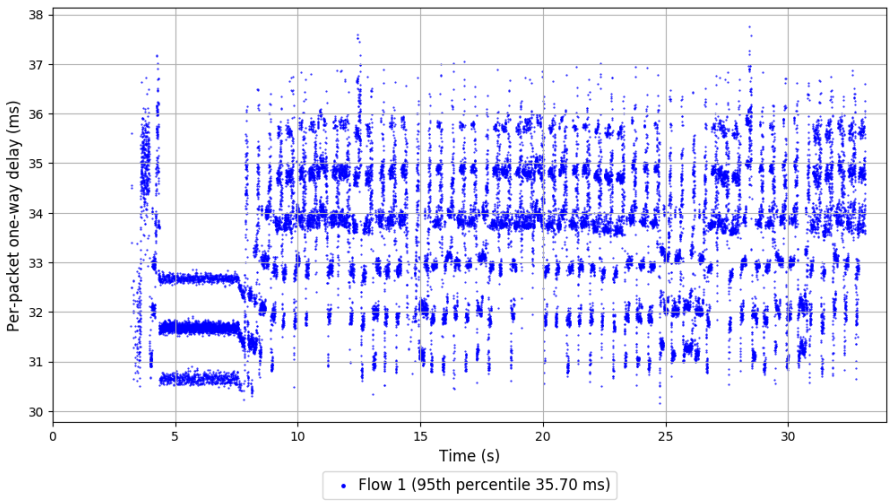
```
Run 3: Statistics of TCP BBR

Start at: 2020-04-16 09:31:17
End at: 2020-04-16 09:31:47

# Below is generated by plot.py at 2020-04-16 09:45:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.62 Mbit/s (96.8% utilization)
95th percentile per-packet one-way delay: 35.699 ms
Loss rate: 3.92%
-- Flow 1:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 35.699 ms
Loss rate: 3.92%
```

Run 3: Report of TCP BBR — Data Link



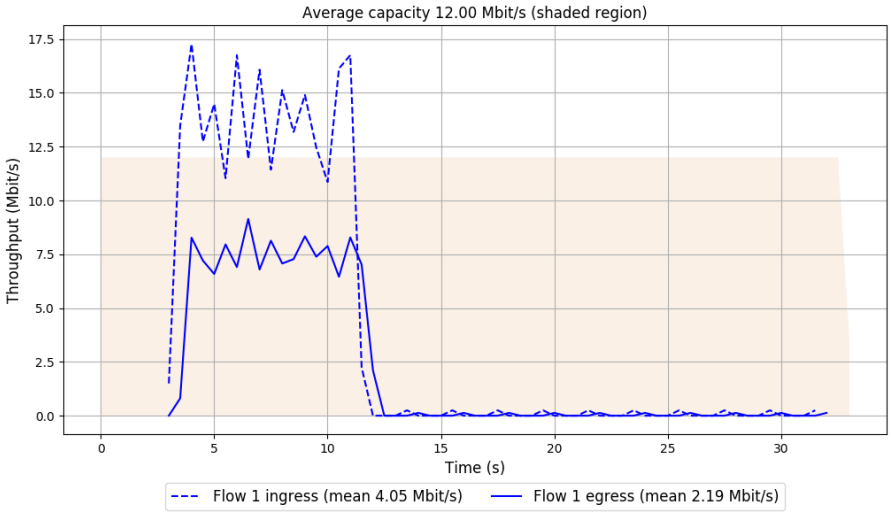


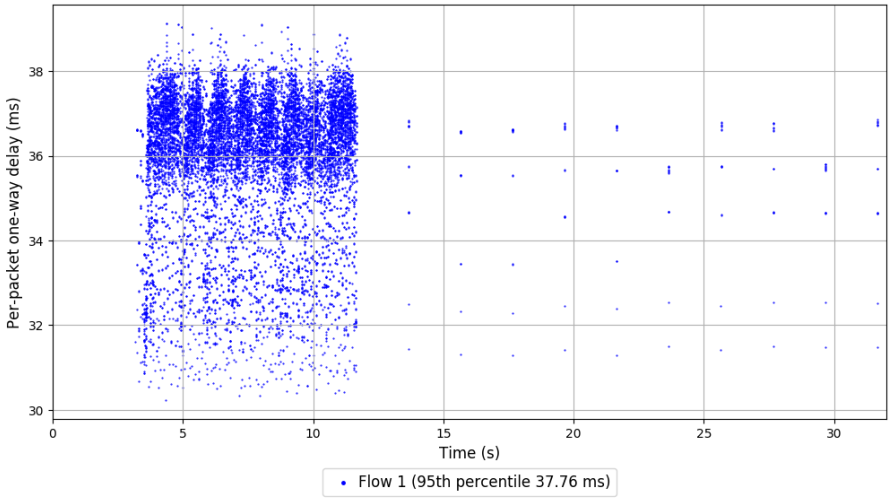
```
Run 1: Statistics of Copa

Start at: 2020-04-16 09:09:29
End at: 2020-04-16 09:09:59

# Below is generated by plot.py at 2020-04-16 09:45:29
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.19 Mbit/s (18.3% utilization)
95th percentile per-packet one-way delay: 37.760 ms
Loss rate: 45.89%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 37.760 ms
Loss rate: 45.89%
```

Run 1: Report of Copa — Data Link



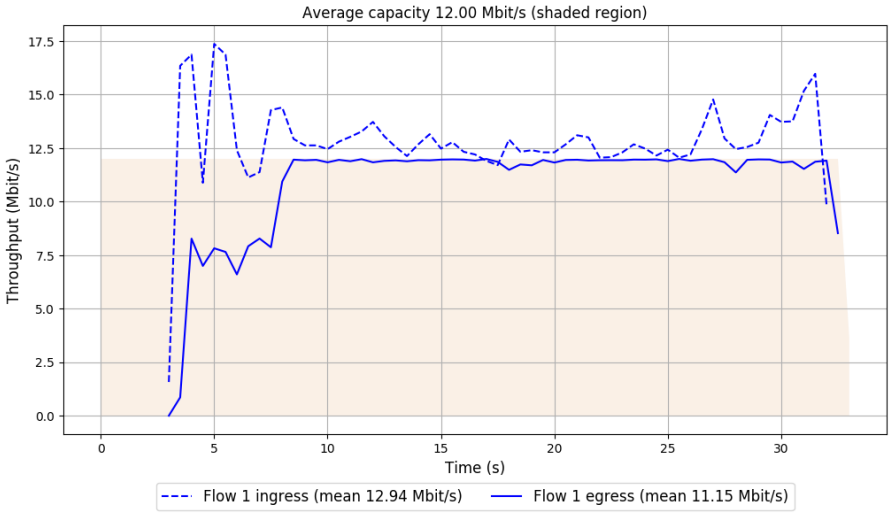


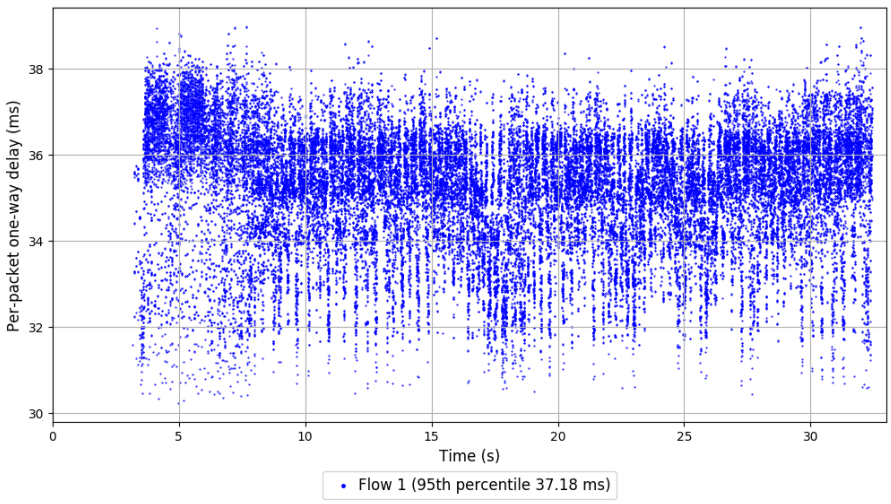
```
Run 2: Statistics of Copa

Start at: 2020-04-16 09:23:37
End at: 2020-04-16 09:24:07

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.15 Mbit/s (92.9% utilization)
95th percentile per-packet one-way delay: 37.183 ms
Loss rate: 13.79%
-- Flow 1:
Average throughput: 11.15 Mbit/s
95th percentile per-packet one-way delay: 37.183 ms
Loss rate: 13.79%
```

Run 2: Report of Copa — Data Link



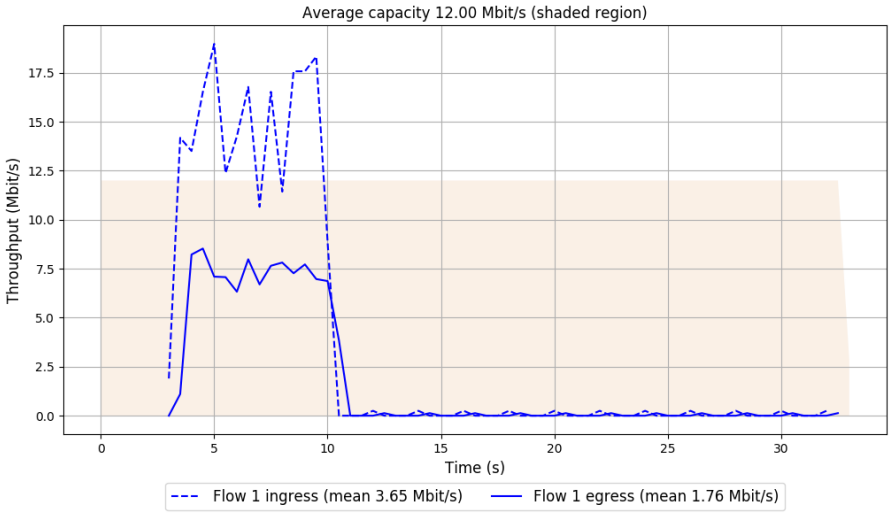


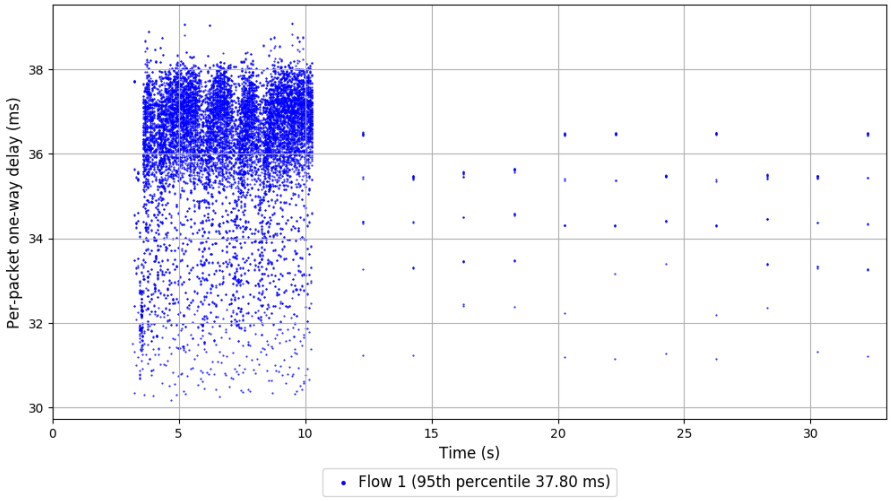
```
Run 3: Statistics of Copa

Start at: 2020-04-16 09:37:44
End at: 2020-04-16 09:38:14

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 1.76 Mbit/s (14.7% utilization)
95th percentile per-packet one-way delay: 37.801 ms
Loss rate: 51.65%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 37.801 ms
Loss rate: 51.65%
```

Run 3: Report of Copa — Data Link



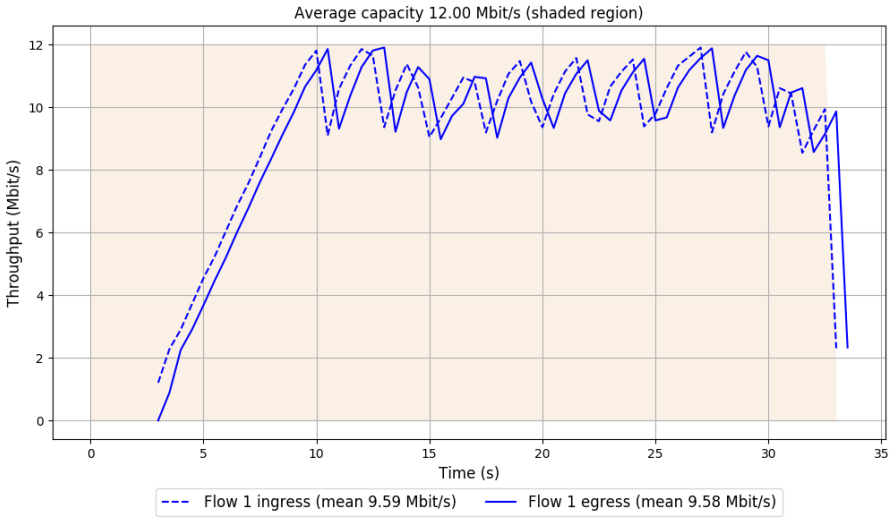


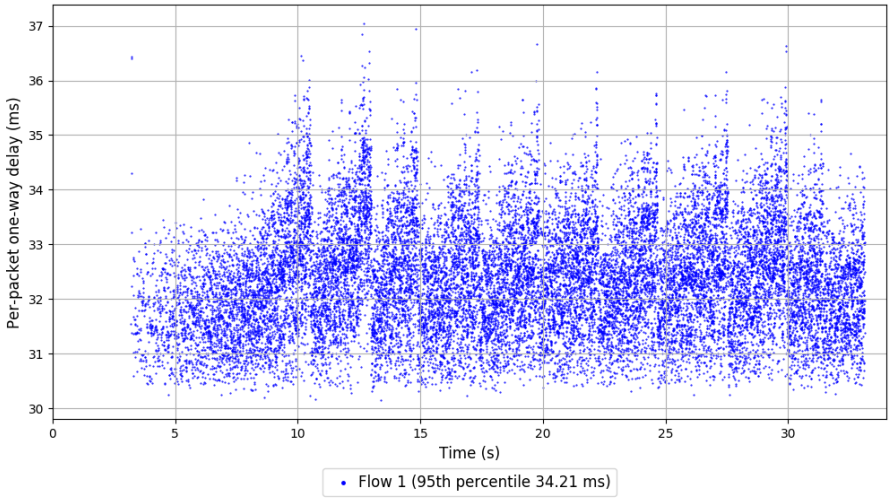
```
Run 1: Statistics of TCP Cubic

Start at: 2020-04-16 09:14:14
End at: 2020-04-16 09:14:44

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.58 Mbit/s (79.9% utilization)
95th percentile per-packet one-way delay: 34.206 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 34.206 ms
Loss rate: 0.18%
```

Run 1: Report of TCP Cubic — Data Link



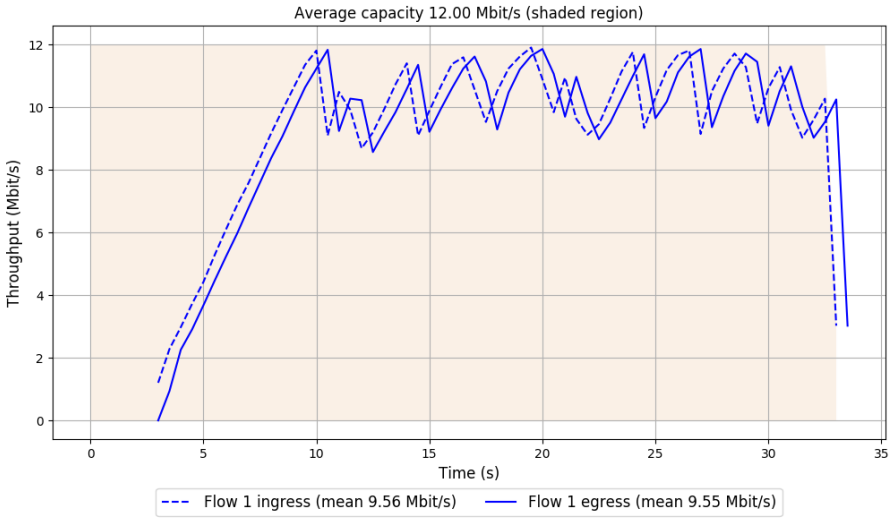


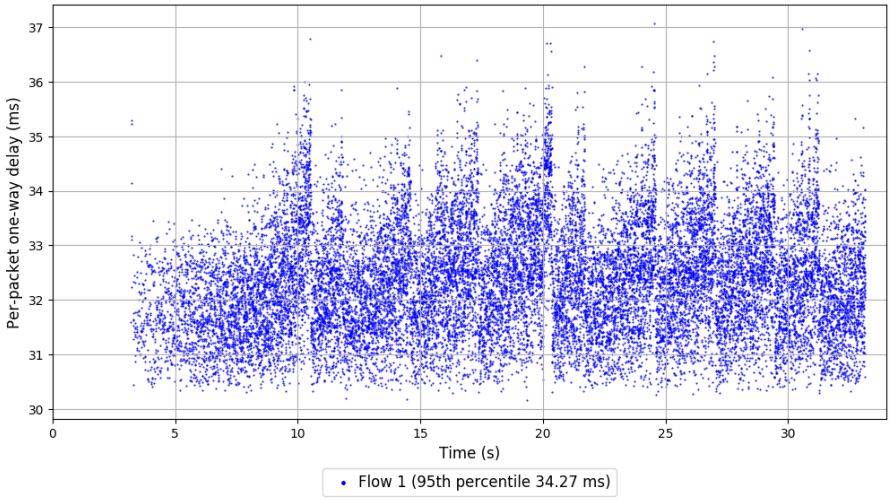
```
Run 2: Statistics of TCP Cubic

Start at: 2020-04-16 09:28:21
End at: 2020-04-16 09:28:51

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.55 Mbit/s (79.6% utilization)
95th percentile per-packet one-way delay: 34.272 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 34.272 ms
Loss rate: 0.19%
```

Run 2: Report of TCP Cubic — Data Link



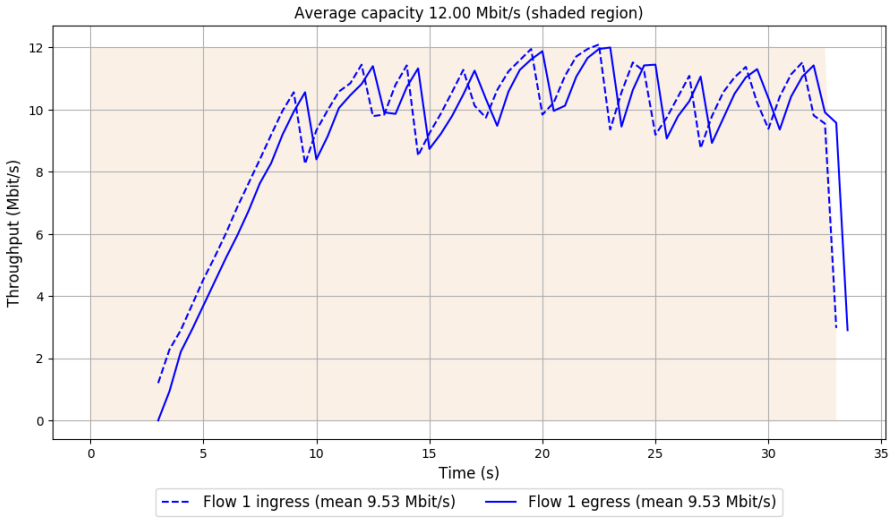


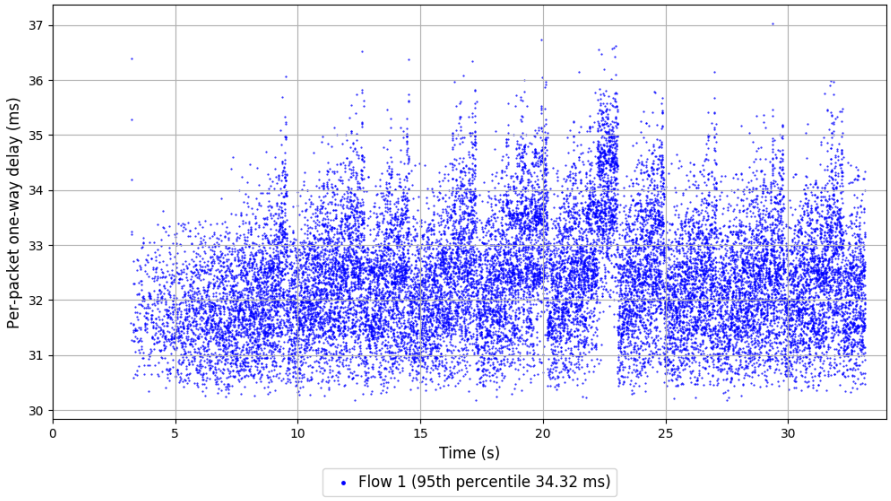
```
Run 3: Statistics of TCP Cubic

Start at: 2020-04-16 09:42:26
End at: 2020-04-16 09:42:56

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.53 Mbit/s (79.4% utilization)
95th percentile per-packet one-way delay: 34.322 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 34.322 ms
Loss rate: 0.20%
```

Run 3: Report of TCP Cubic — Data Link



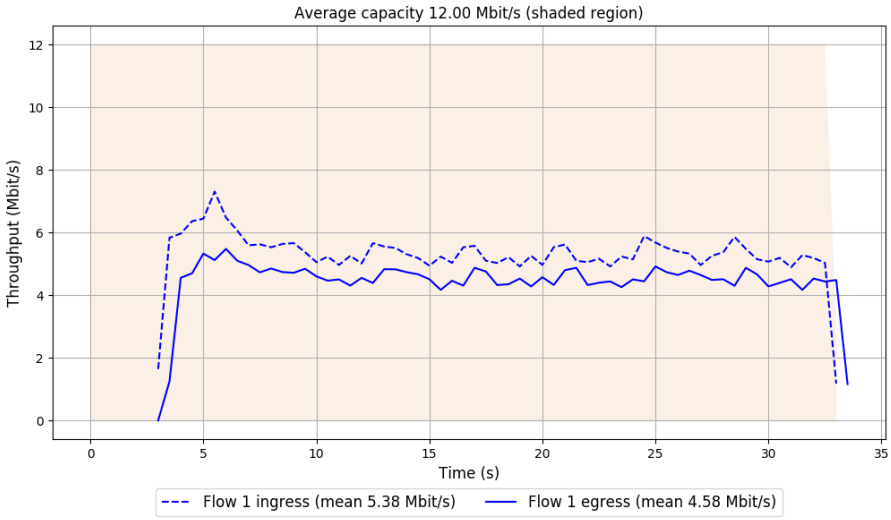


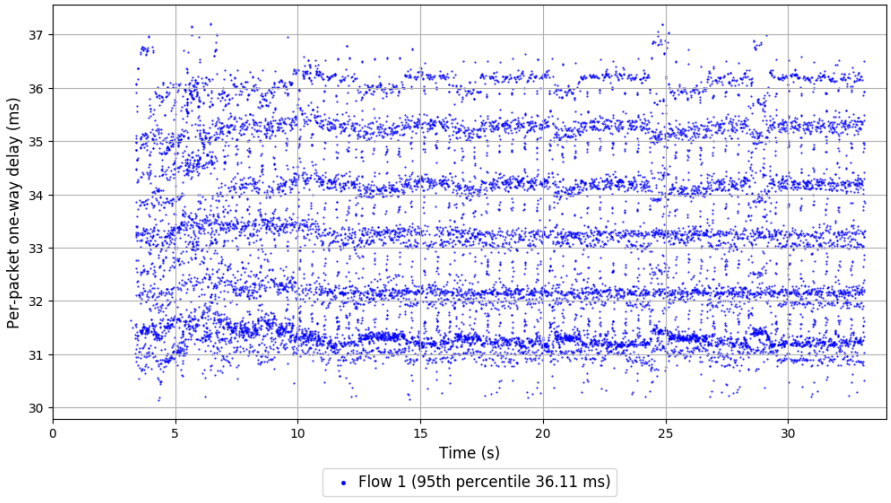
```
Run 1: Statistics of FillP

Start at: 2020-04-16 09:11:14
End at: 2020-04-16 09:11:44

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.58 Mbit/s (38.2% utilization)
95th percentile per-packet one-way delay: 36.112 ms
Loss rate: 14.96%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 36.112 ms
Loss rate: 14.96%
```

Run 1: Report of FillP — Data Link



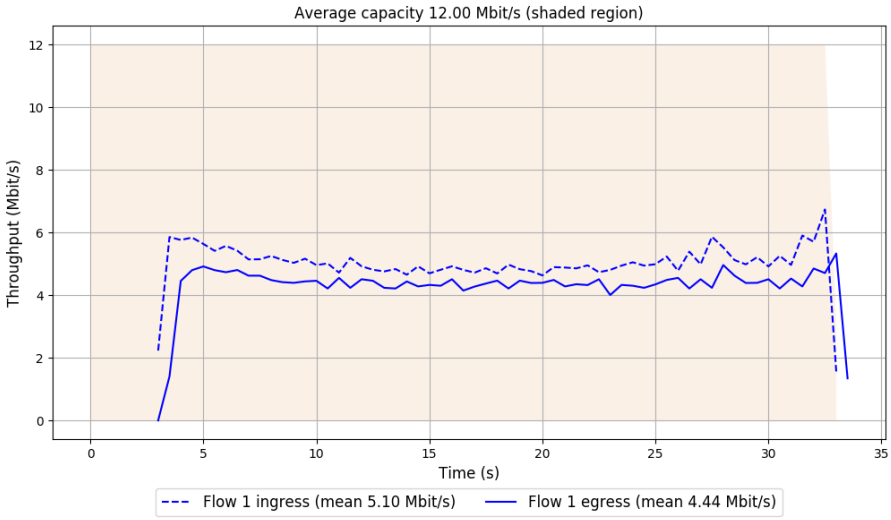


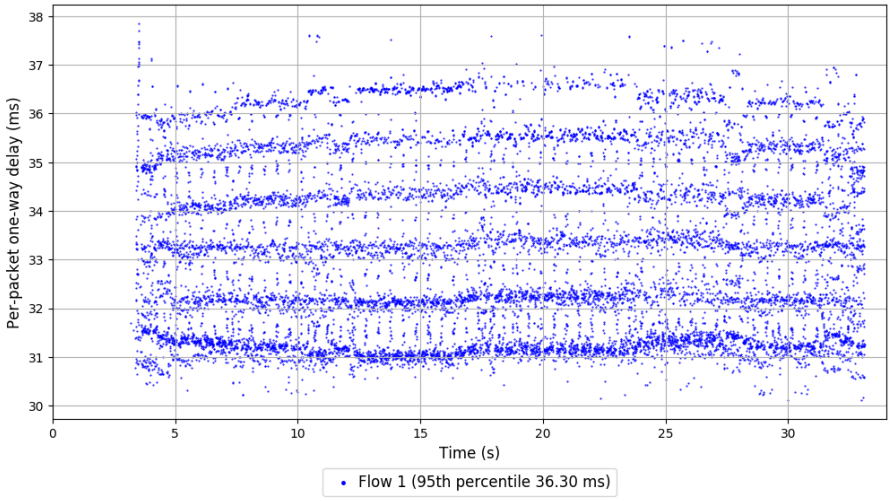
```
Run 2: Statistics of FillP

Start at: 2020-04-16 09:25:23
End at: 2020-04-16 09:25:53

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.44 Mbit/s (37.0% utilization)
95th percentile per-packet one-way delay: 36.300 ms
Loss rate: 13.00%
-- Flow 1:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 36.300 ms
Loss rate: 13.00%
```

Run 2: Report of FillP — Data Link



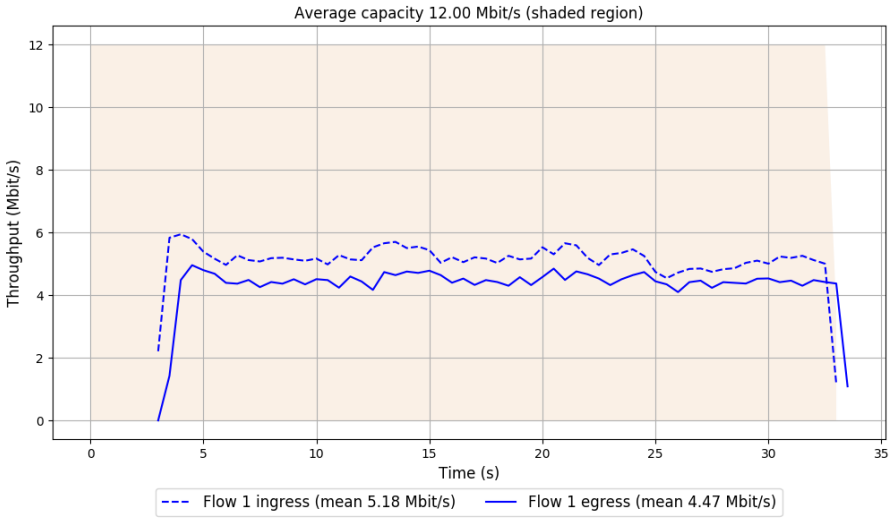


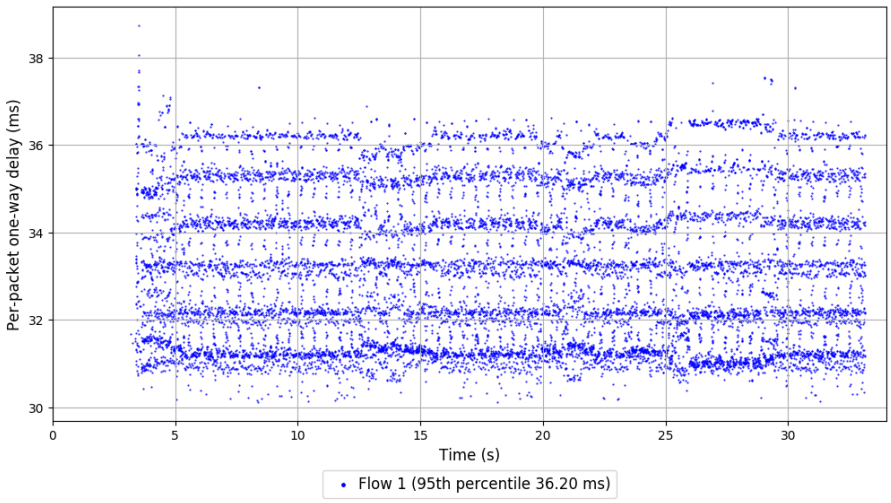
```
Run 3: Statistics of FillP

Start at: 2020-04-16 09:39:30
End at: 2020-04-16 09:40:00

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.47 Mbit/s (37.2% utilization)
95th percentile per-packet one-way delay: 36.198 ms
Loss rate: 13.90%
-- Flow 1:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 36.198 ms
Loss rate: 13.90%
```

Run 3: Report of FillP — Data Link



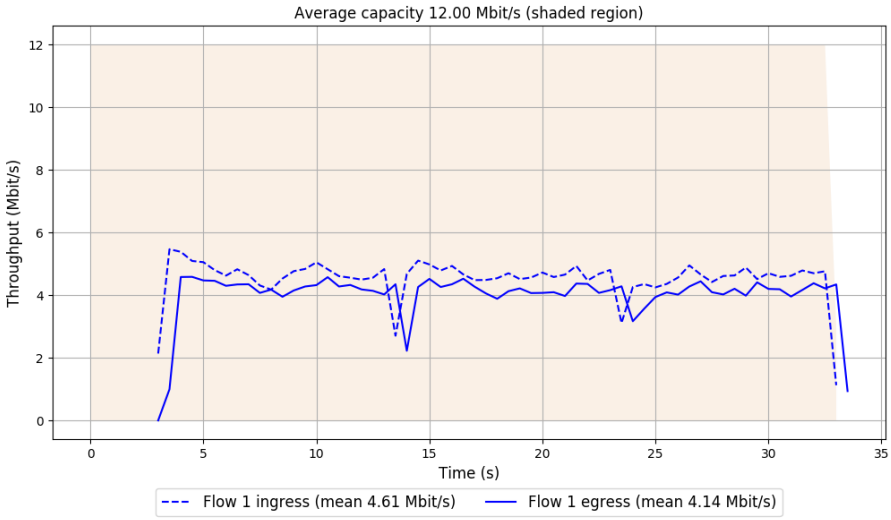


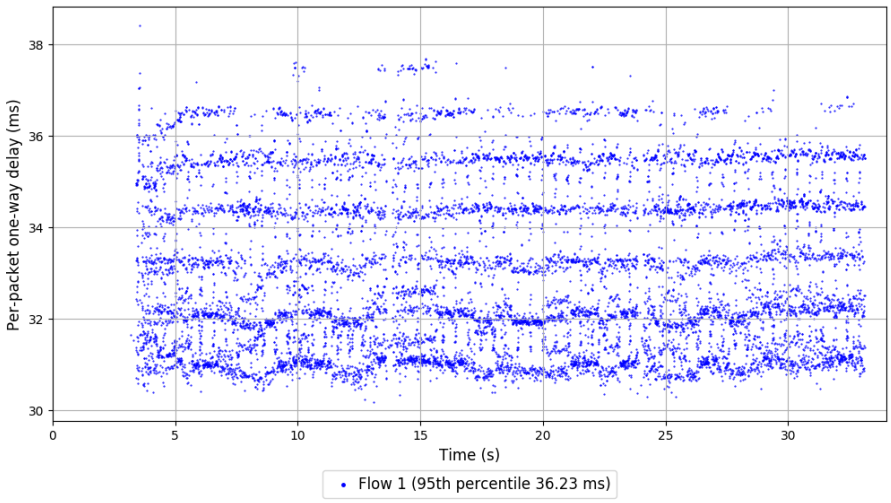
```
Run 1: Statistics of FillP-Sheep

Start at: 2020-04-16 09:14:49
End at: 2020-04-16 09:15:19

# Below is generated by plot.py at 2020-04-16 09:45:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.14 Mbit/s (34.5% utilization)
95th percentile per-packet one-way delay: 36.229 ms
Loss rate: 10.40%
-- Flow 1:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 36.229 ms
Loss rate: 10.40%
```

Run 1: Report of FillP-Sheep — Data Link



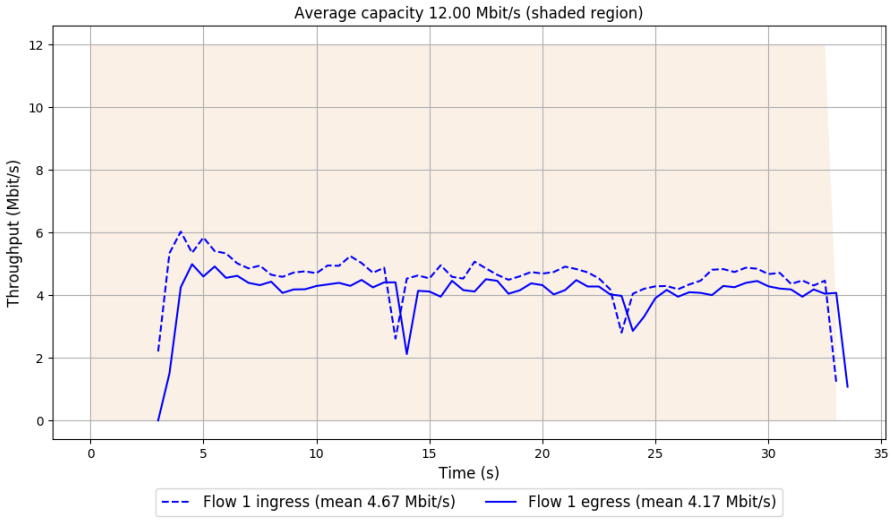


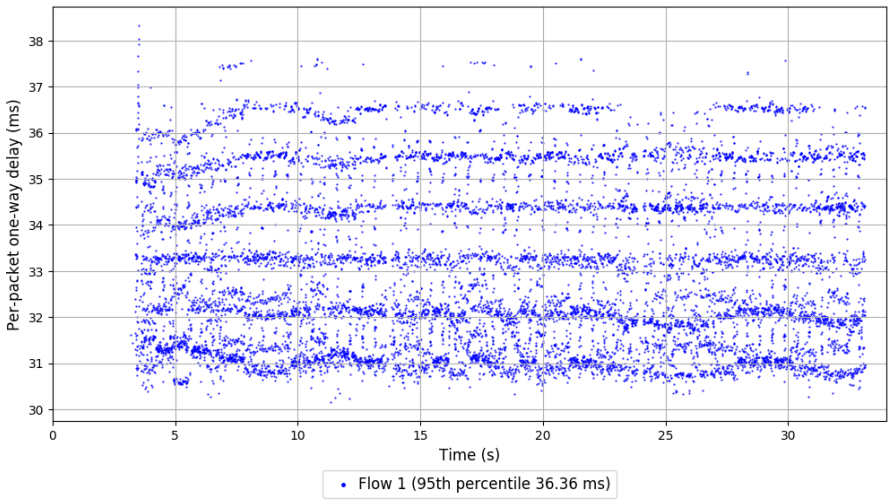
```
Run 2: Statistics of FillP-Sheep

Start at: 2020-04-16 09:28:57
End at: 2020-04-16 09:29:27

# Below is generated by plot.py at 2020-04-16 09:45:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.17 Mbit/s (34.8% utilization)
95th percentile per-packet one-way delay: 36.356 ms
Loss rate: 10.73%
-- Flow 1:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 36.356 ms
Loss rate: 10.73%
```

Run 2: Report of FillP-Sheep — Data Link



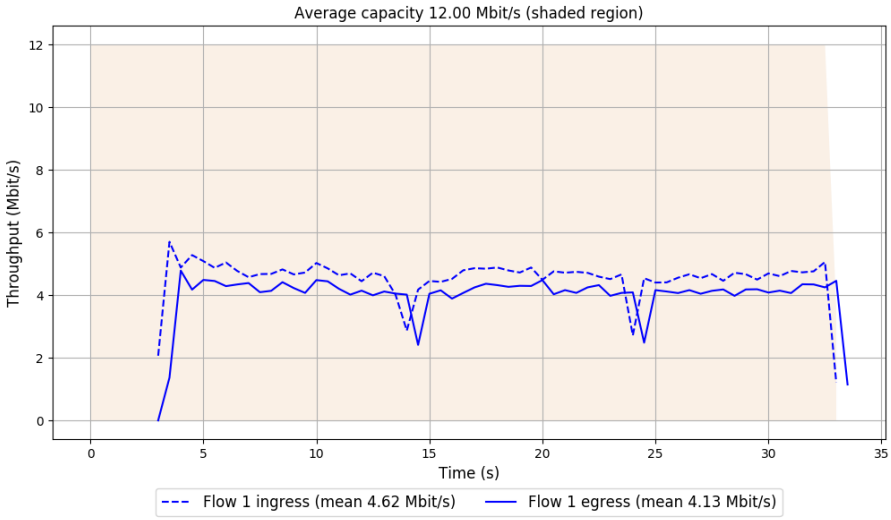


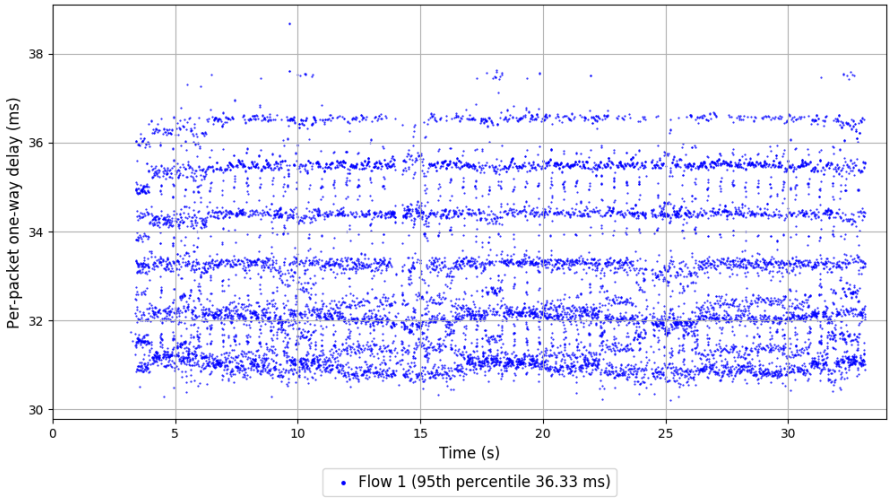
```
Run 3: Statistics of FillP-Sheep

Start at: 2020-04-16 09:43:01
End at: 2020-04-16 09:43:31

# Below is generated by plot.py at 2020-04-16 09:45:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.13 Mbit/s (34.4% utilization)
95th percentile per-packet one-way delay: 36.333 ms
Loss rate: 10.79%
-- Flow 1:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 36.333 ms
Loss rate: 10.79%
```

Run 3: Report of FillP-Sheep — Data Link



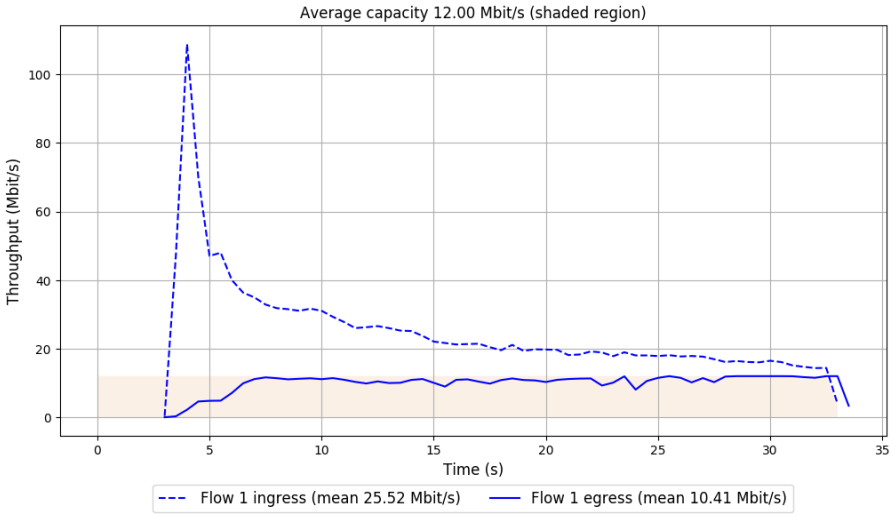


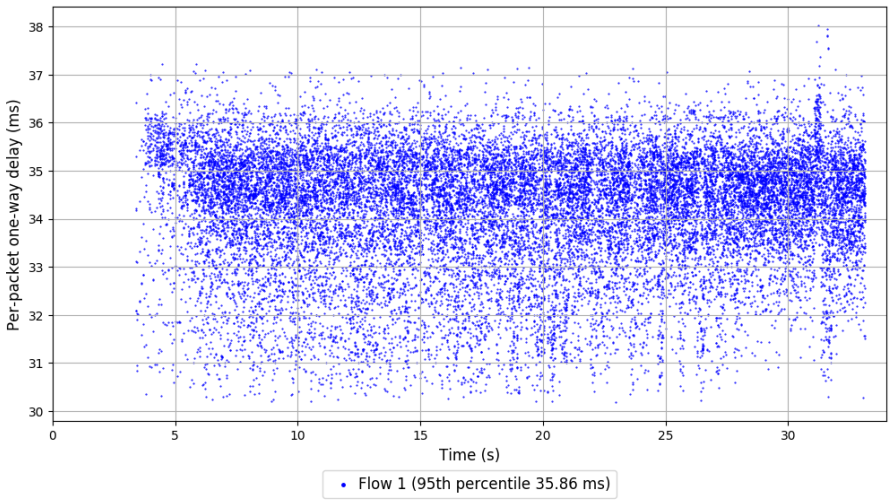
```
Run 1: Statistics of Indigo

Start at: 2020-04-16 09:12:24
End at: 2020-04-16 09:12:54

# Below is generated by plot.py at 2020-04-16 09:46:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.41 Mbit/s (86.7% utilization)
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 59.27%
-- Flow 1:
Average throughput: 10.41 Mbit/s
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 59.27%
```

Run 1: Report of Indigo — Data Link



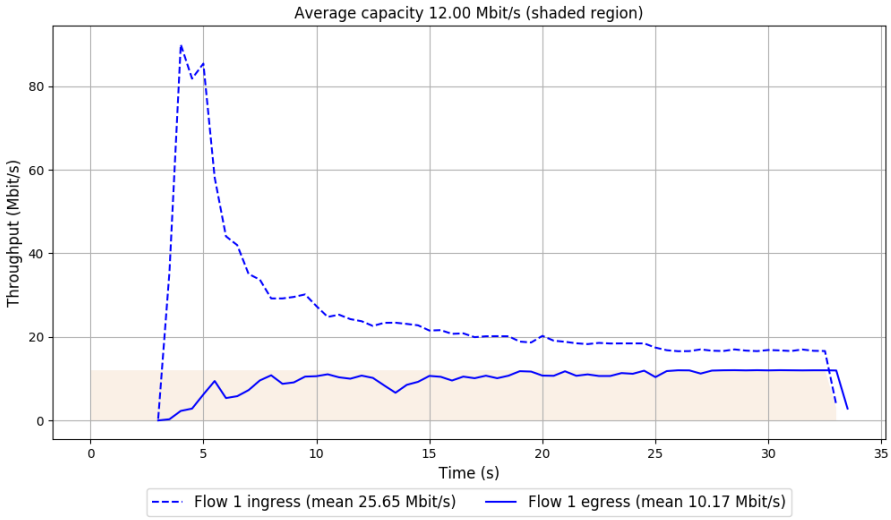


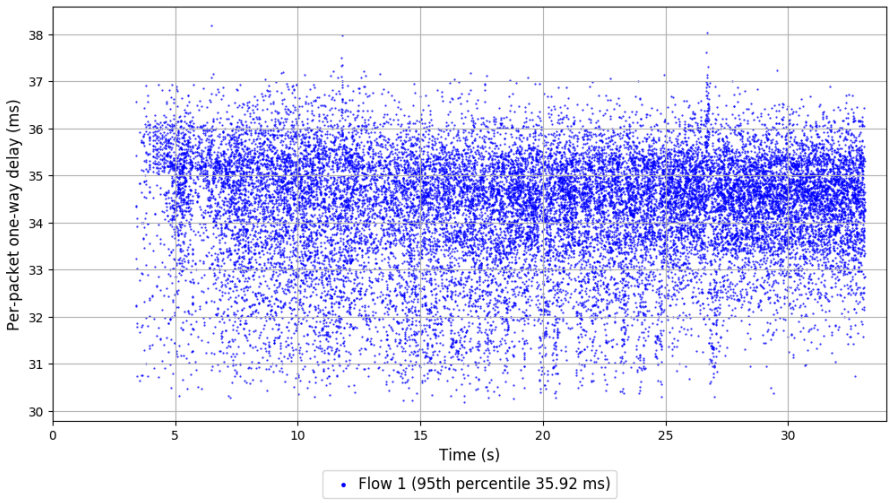
```
Run 2: Statistics of Indigo

Start at: 2020-04-16 09:26:33
End at: 2020-04-16 09:27:03

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.17 Mbit/s (84.7% utilization)
95th percentile per-packet one-way delay: 35.918 ms
Loss rate: 60.39%
-- Flow 1:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 35.918 ms
Loss rate: 60.39%
```

Run 2: Report of Indigo — Data Link



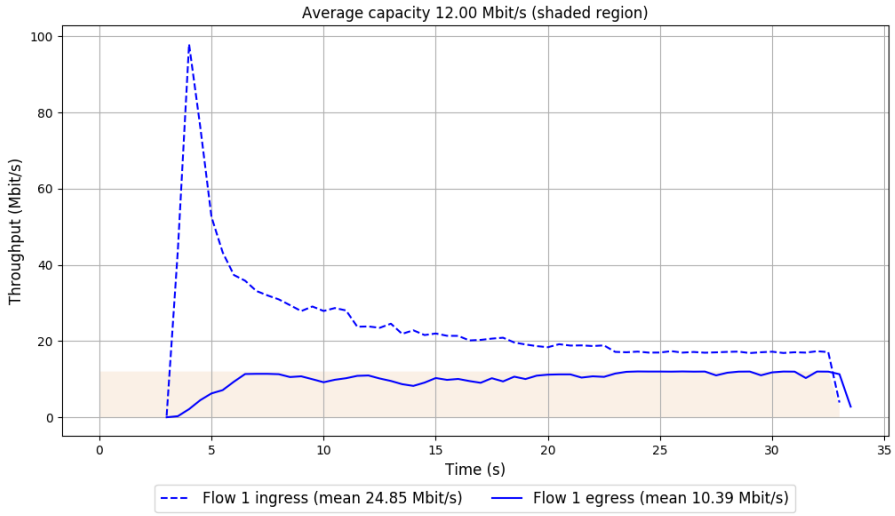


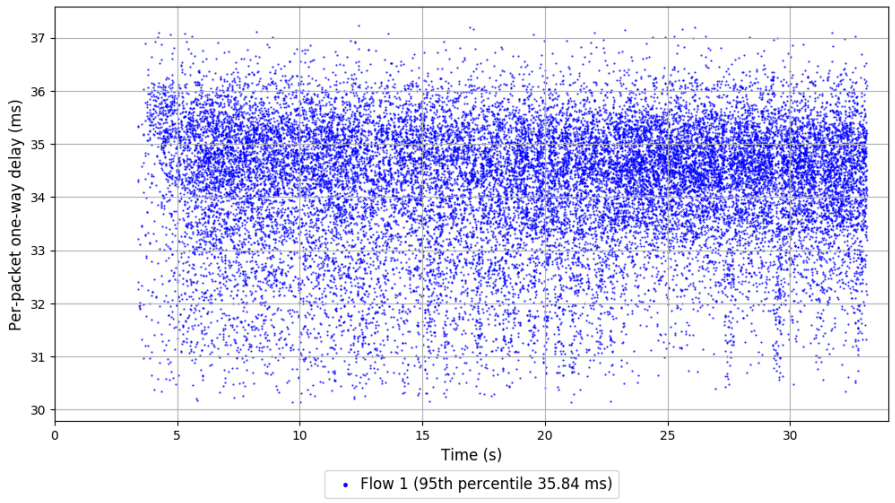
```
Run 3: Statistics of Indigo

Start at: 2020-04-16 09:40:40
End at: 2020-04-16 09:41:10

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.39 Mbit/s (86.6% utilization)
95th percentile per-packet one-way delay: 35.837 ms
Loss rate: 58.21%
-- Flow 1:
Average throughput: 10.39 Mbit/s
95th percentile per-packet one-way delay: 35.837 ms
Loss rate: 58.21%
```

Run 3: Report of Indigo — Data Link



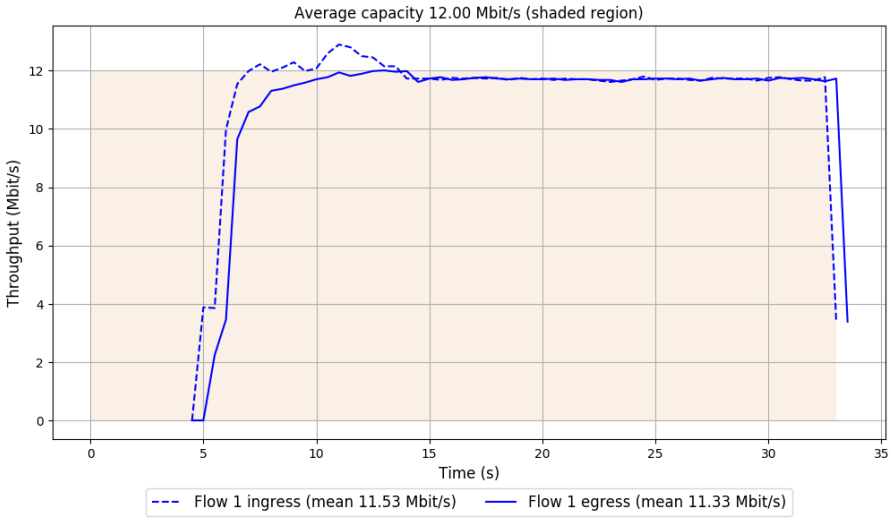


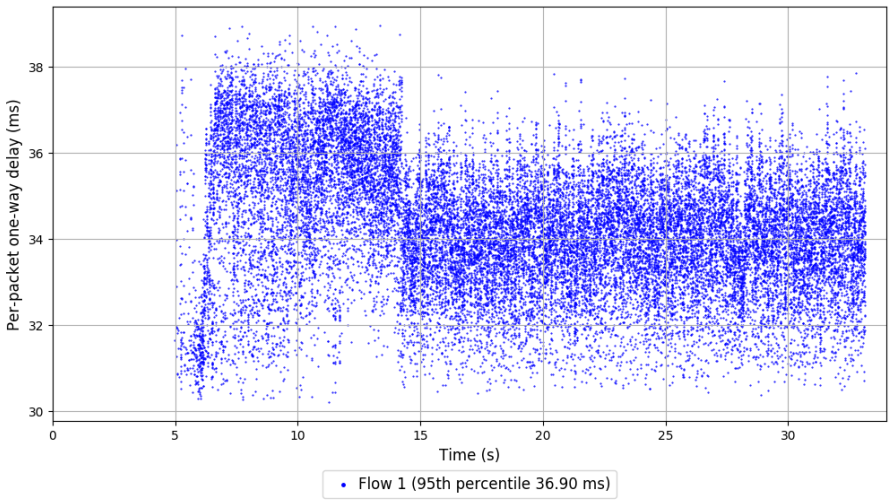
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-04-16 09:02:26
End at: 2020-04-16 09:02:56

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.33 Mbit/s (94.4% utilization)
95th percentile per-packet one-way delay: 36.904 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 36.904 ms
Loss rate: 1.85%
```

Run 1: Report of Indigo-MusesC3 — Data Link



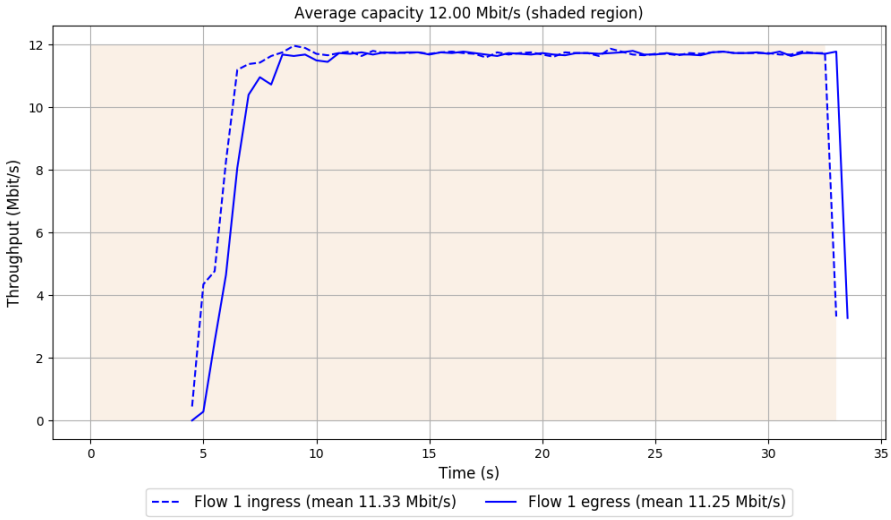


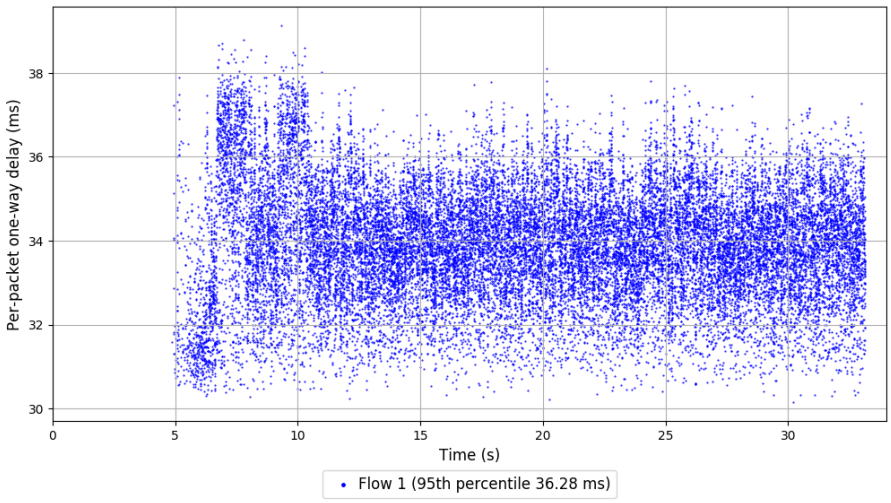
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-04-16 09:16:34
End at: 2020-04-16 09:17:04

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.25 Mbit/s (93.7% utilization)
95th percentile per-packet one-way delay: 36.278 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 36.278 ms
Loss rate: 0.83%
```

Run 2: Report of Indigo-MusesC3 — Data Link



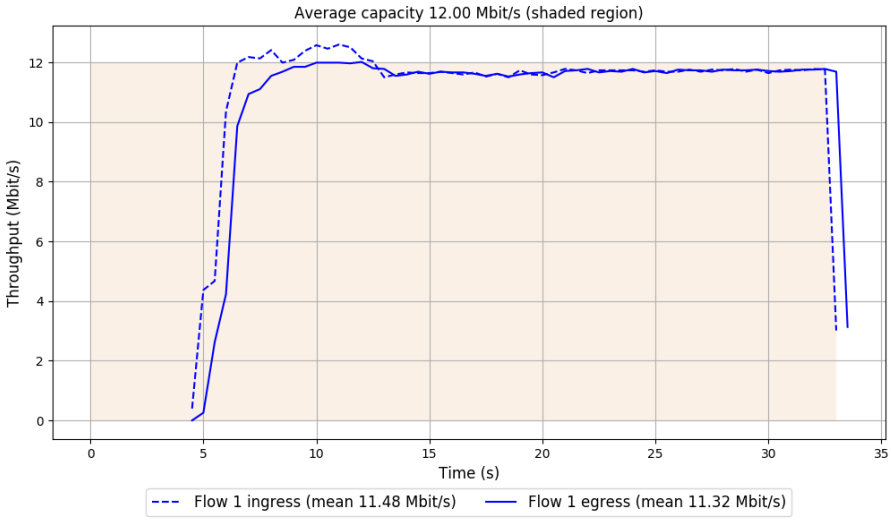


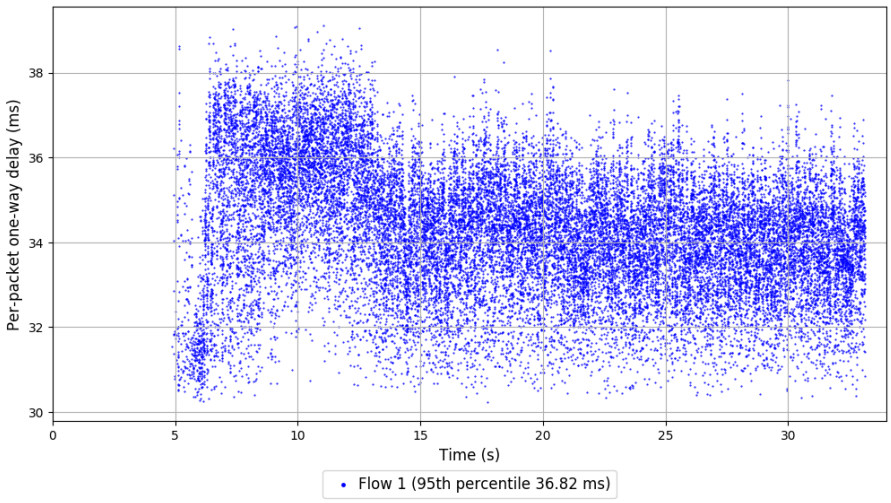
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-04-16 09:30:42
End at: 2020-04-16 09:31:12

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.32 Mbit/s (94.3% utilization)
95th percentile per-packet one-way delay: 36.819 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 36.819 ms
Loss rate: 1.50%
```

Run 3: Report of Indigo-MusesC3 — Data Link



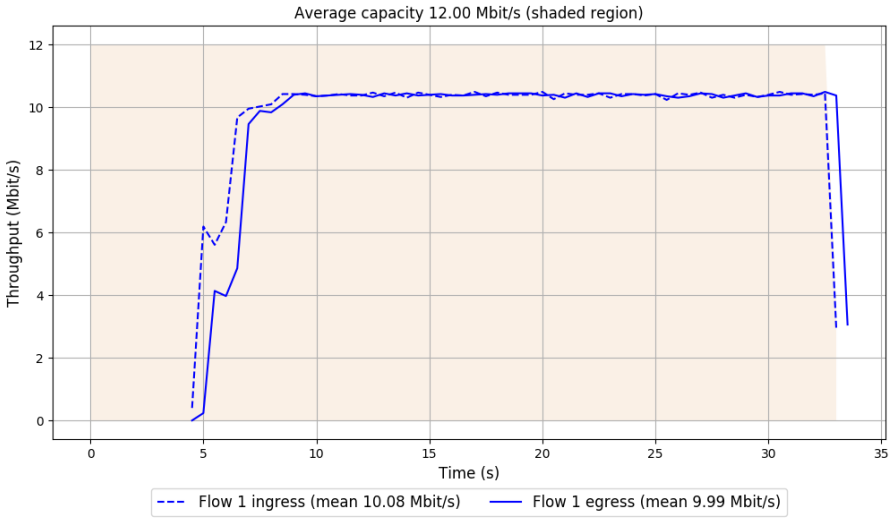


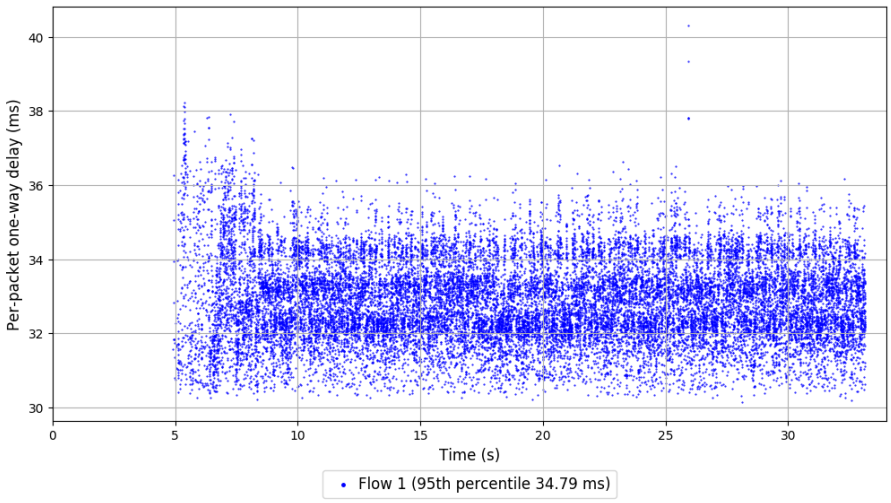
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-04-16 09:15:24
End at: 2020-04-16 09:15:54

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.99 Mbit/s (83.3% utilization)
95th percentile per-packet one-way delay: 34.789 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 34.789 ms
Loss rate: 1.00%
```

Run 1: Report of Indigo-MusesC5 — Data Link



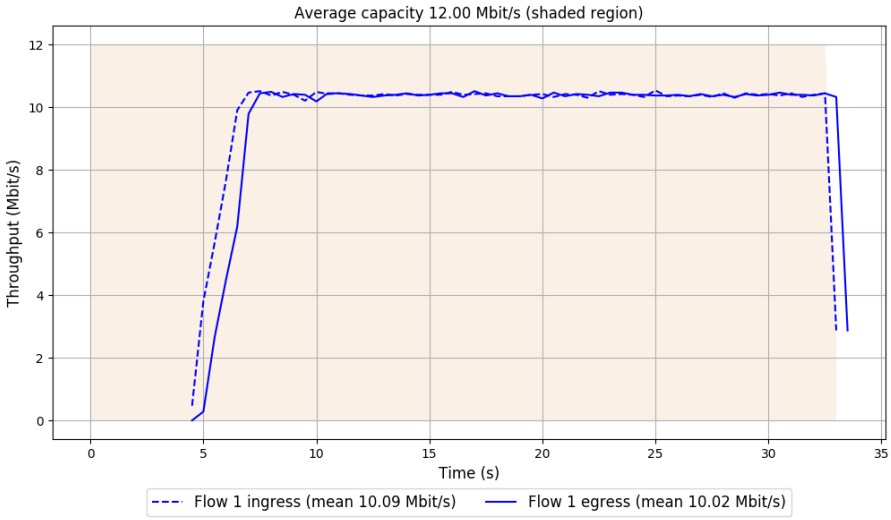


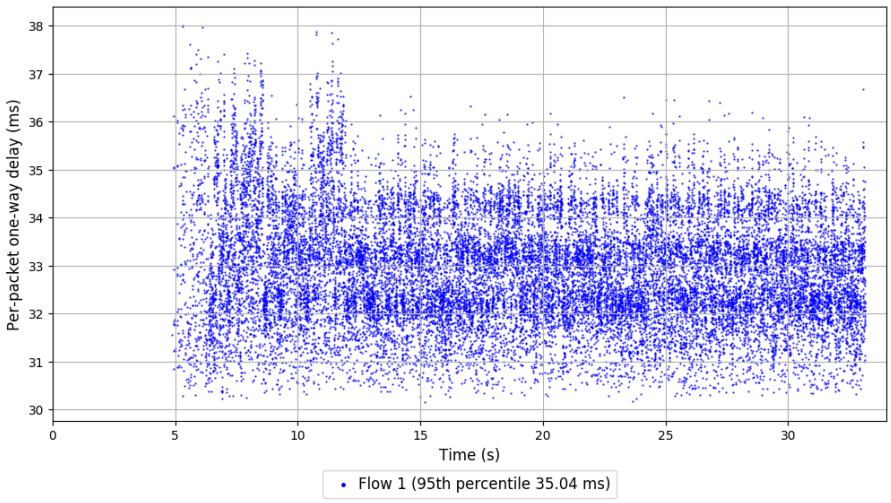
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-04-16 09:29:31
End at: 2020-04-16 09:30:01

# Below is generated by plot.py at 2020-04-16 09:46:12
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.02 Mbit/s (83.5% utilization)
95th percentile per-packet one-way delay: 35.040 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 35.040 ms
Loss rate: 0.78%
```

Run 2: Report of Indigo-MusesC5 — Data Link



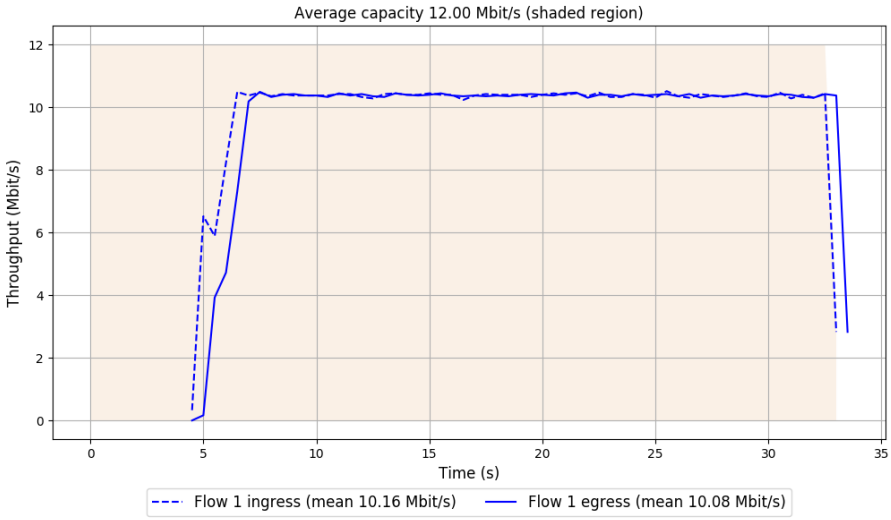


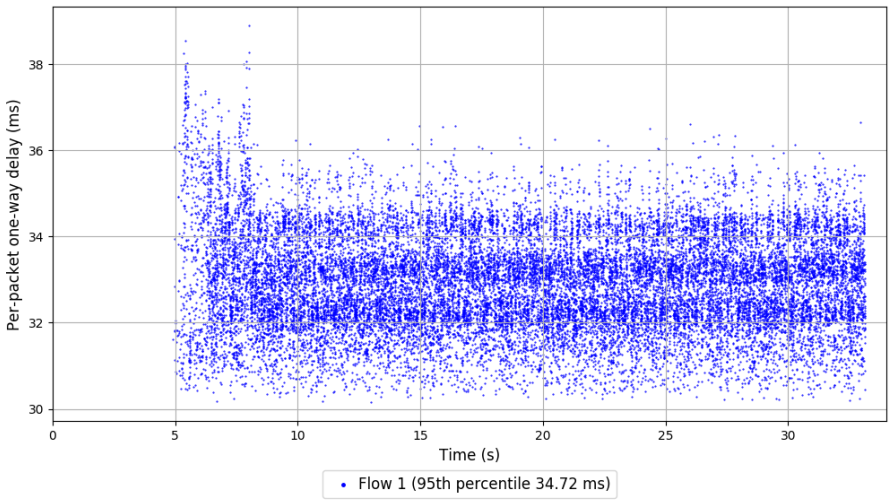
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-04-16 09:43:36
End at: 2020-04-16 09:44:06

# Below is generated by plot.py at 2020-04-16 09:46:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.08 Mbit/s (84.0% utilization)
95th percentile per-packet one-way delay: 34.721 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 34.721 ms
Loss rate: 0.89%
```

Run 3: Report of Indigo-MusesC5 — Data Link



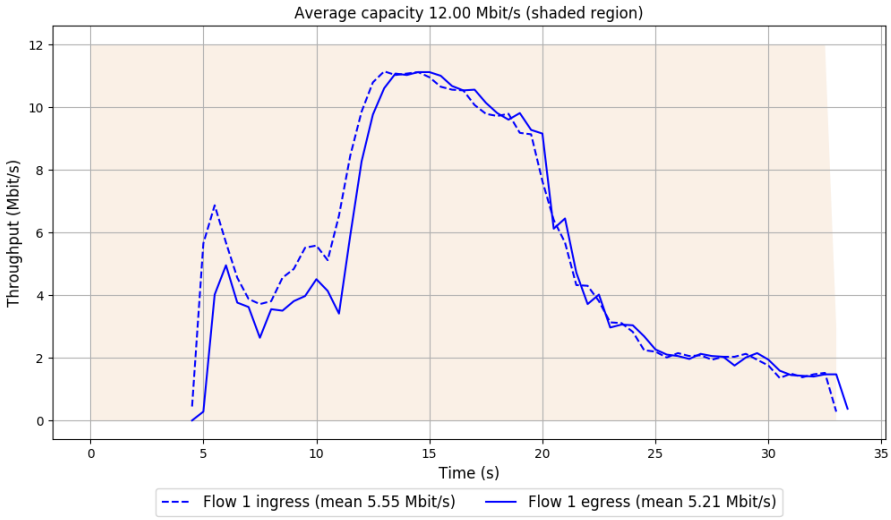


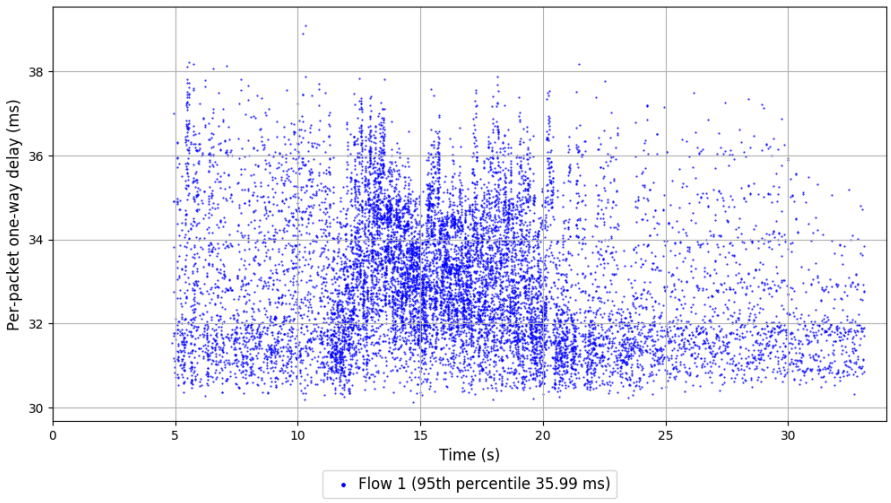
```
Run 1: Statistics of Indigo-MusesD

Start at: 2020-04-16 09:11:49
End at: 2020-04-16 09:12:19

# Below is generated by plot.py at 2020-04-16 09:46:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.21 Mbit/s (43.4% utilization)
95th percentile per-packet one-way delay: 35.988 ms
Loss rate: 6.32%
-- Flow 1:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 35.988 ms
Loss rate: 6.32%
```

Run 1: Report of Indigo-MusesD — Data Link



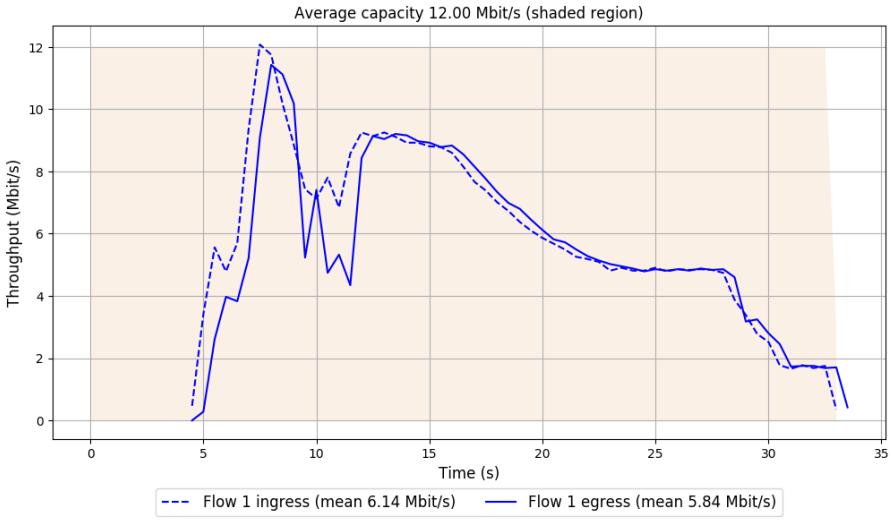


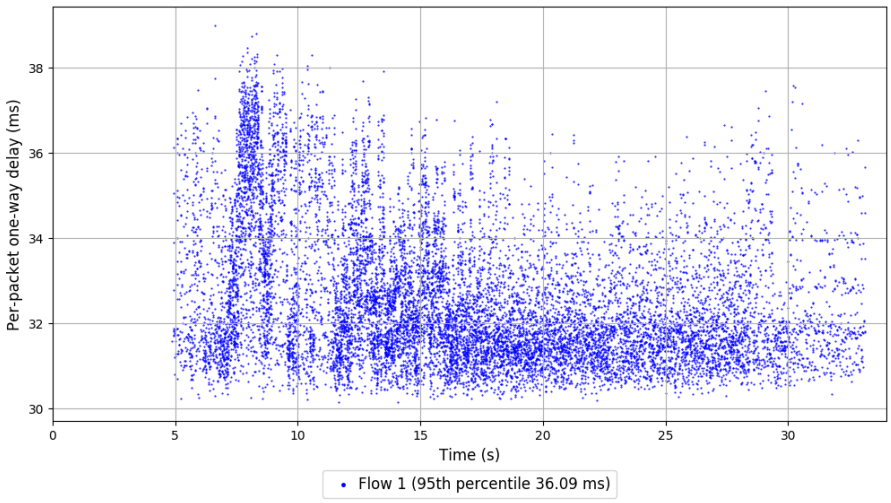
```
Run 2: Statistics of Indigo-MusesD

Start at: 2020-04-16 09:25:58
End at: 2020-04-16 09:26:28

# Below is generated by plot.py at 2020-04-16 09:46:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.84 Mbit/s (48.6% utilization)
95th percentile per-packet one-way delay: 36.087 ms
Loss rate: 5.08%
-- Flow 1:
Average throughput: 5.84 Mbit/s
95th percentile per-packet one-way delay: 36.087 ms
Loss rate: 5.08%
```

Run 2: Report of Indigo-MusesD — Data Link



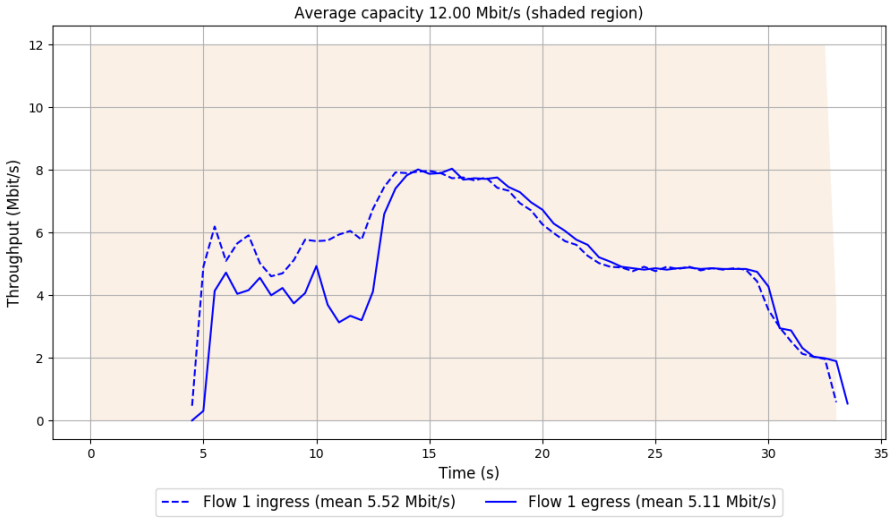


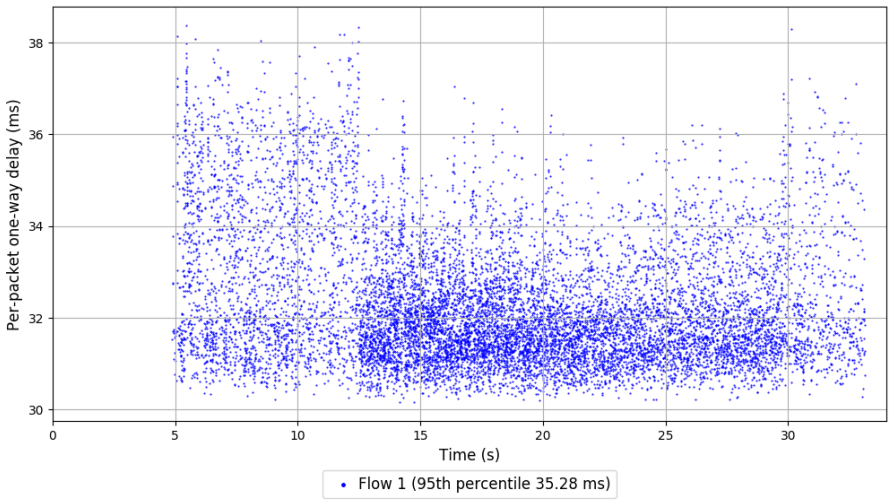
```
Run 3: Statistics of Indigo-MusesD

Start at: 2020-04-16 09:40:05
End at: 2020-04-16 09:40:35

# Below is generated by plot.py at 2020-04-16 09:46:30
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.11 Mbit/s (42.6% utilization)
95th percentile per-packet one-way delay: 35.280 ms
Loss rate: 7.59%
-- Flow 1:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 35.280 ms
Loss rate: 7.59%
```

Run 3: Report of Indigo-MusesD — Data Link



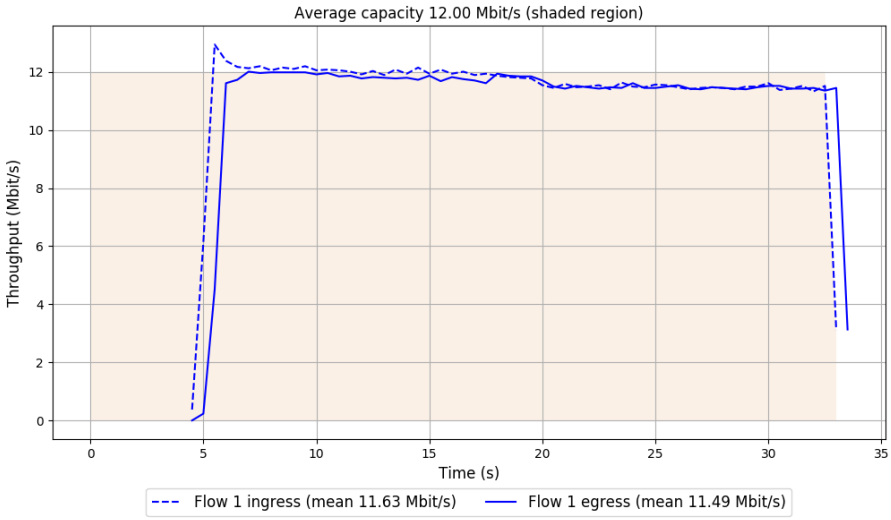


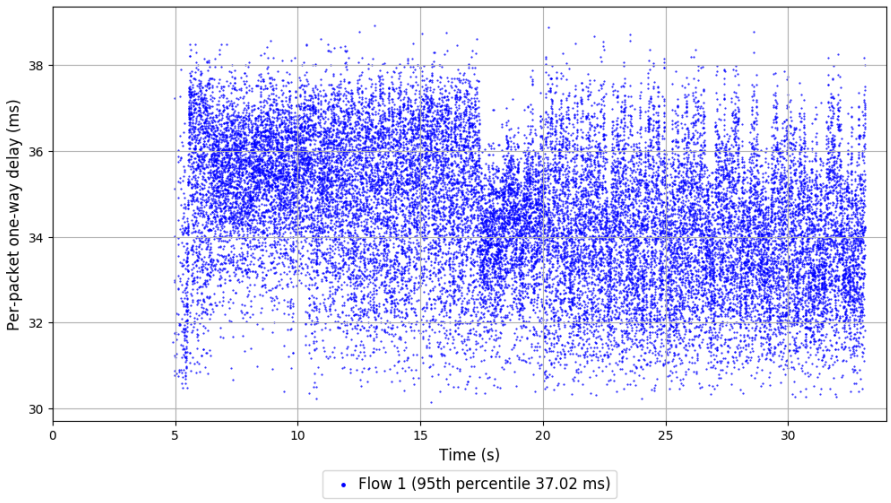
```
Run 1: Statistics of Indigo-MusesT

Start at: 2020-04-16 09:03:37
End at: 2020-04-16 09:04:07

# Below is generated by plot.py at 2020-04-16 09:46:37
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.49 Mbit/s (95.7% utilization)
95th percentile per-packet one-way delay: 37.022 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 37.022 ms
Loss rate: 1.34%
```

Run 1: Report of Indigo-MusesT — Data Link



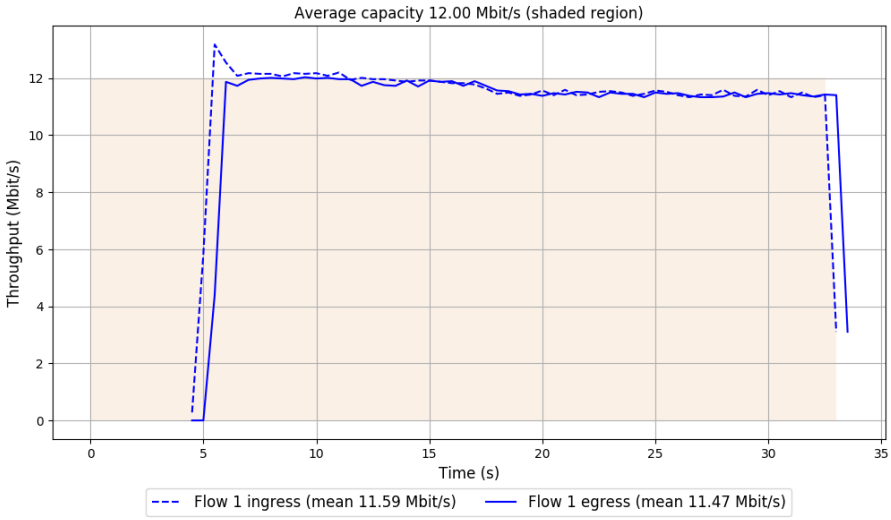


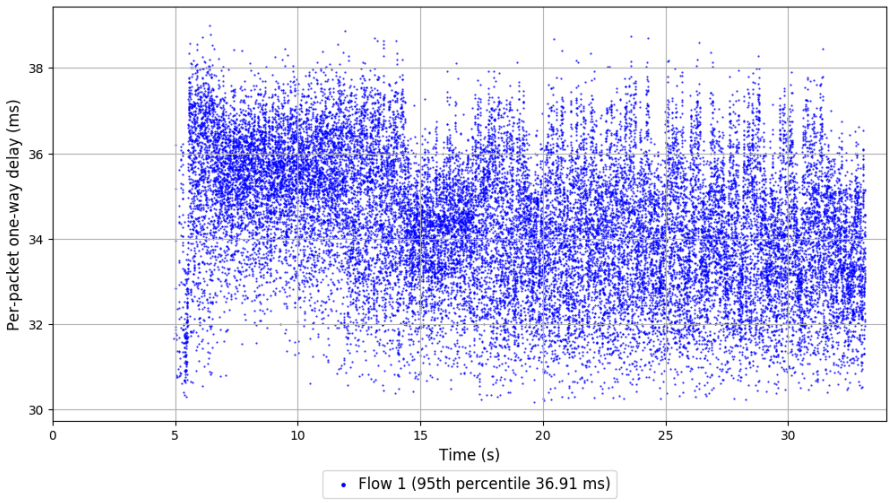
```
Run 2: Statistics of Indigo-MusesT

Start at: 2020-04-16 09:17:45
End at: 2020-04-16 09:18:15

# Below is generated by plot.py at 2020-04-16 09:46:38
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.47 Mbit/s (95.6% utilization)
95th percentile per-packet one-way delay: 36.909 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 36.909 ms
Loss rate: 1.11%
```

Run 2: Report of Indigo-MusesT — Data Link



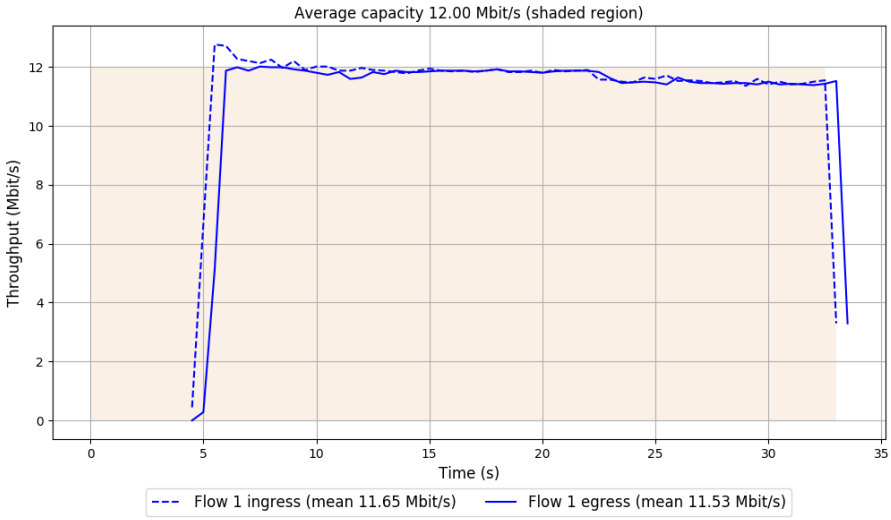


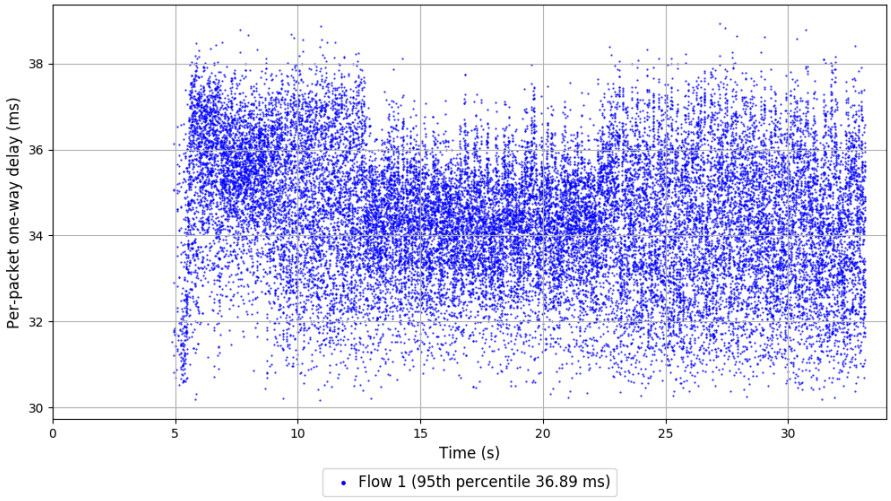
```
Run 3: Statistics of Indigo-MusesT

Start at: 2020-04-16 09:31:52
End at: 2020-04-16 09:32:22

# Below is generated by plot.py at 2020-04-16 09:46:39
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.53 Mbit/s (96.1% utilization)
95th percentile per-packet one-way delay: 36.893 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 36.893 ms
Loss rate: 1.09%
```

Run 3: Report of Indigo-MusesT — Data Link



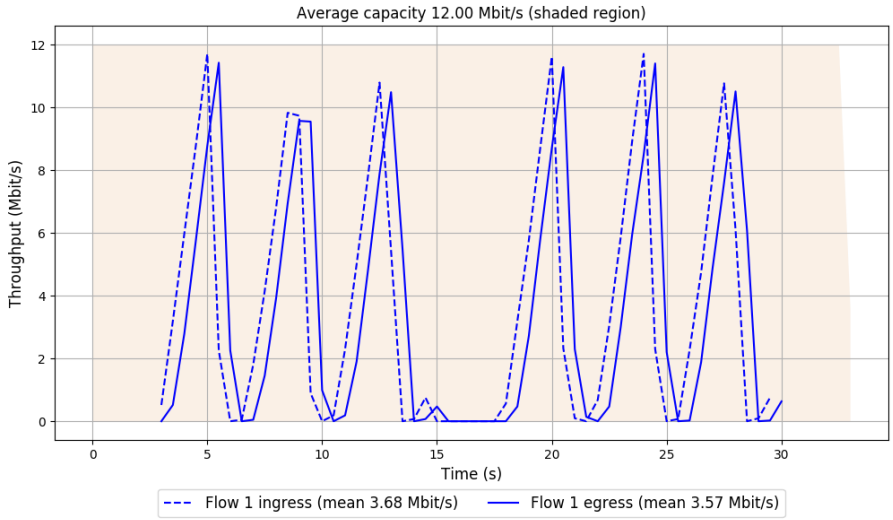


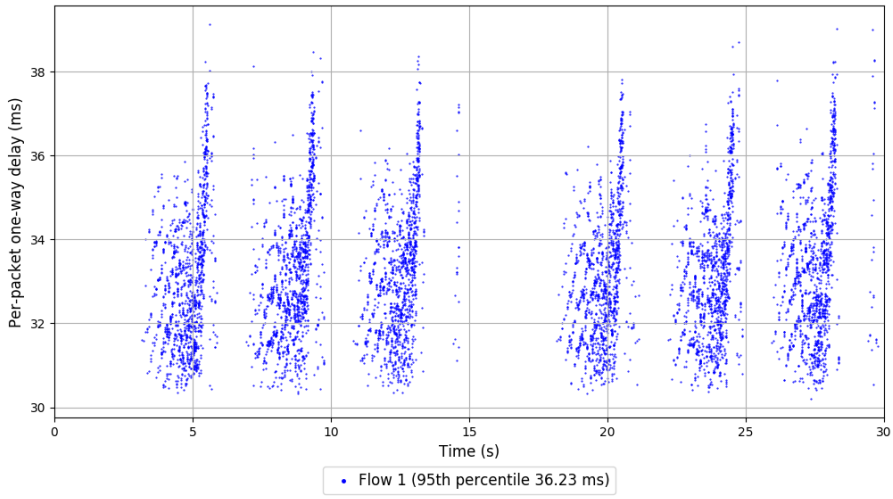
```
Run 1: Statistics of LEDBAT

Start at: 2020-04-16 09:05:22
End at: 2020-04-16 09:05:52

# Below is generated by plot.py at 2020-04-16 09:46:39
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.57 Mbit/s (29.7% utilization)
95th percentile per-packet one-way delay: 36.235 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 36.235 ms
Loss rate: 2.87%
```

Run 1: Report of LEDBAT — Data Link



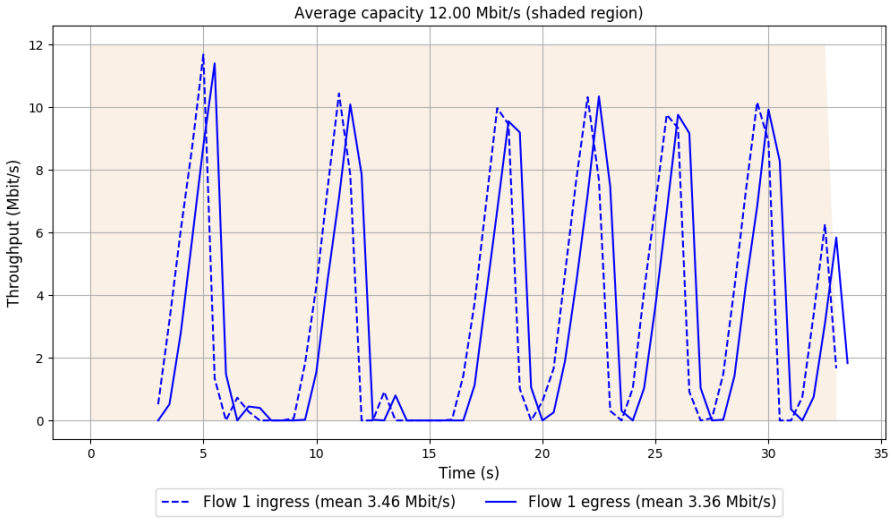


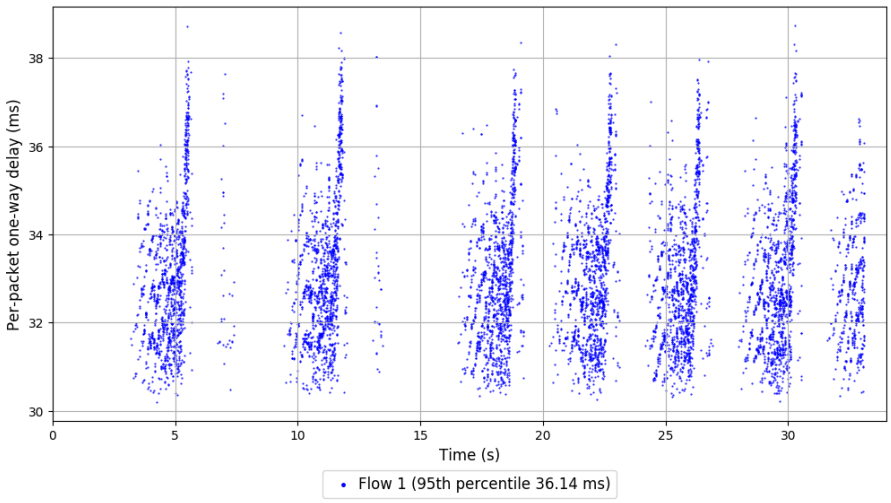
```
Run 2: Statistics of LEDBAT

Start at: 2020-04-16 09:19:31
End at: 2020-04-16 09:20:01

# Below is generated by plot.py at 2020-04-16 09:46:39
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 3.36 Mbit/s (28.0% utilization)
95th percentile per-packet one-way delay: 36.138 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 36.138 ms
Loss rate: 2.99%
```

Run 2: Report of LEDBAT — Data Link



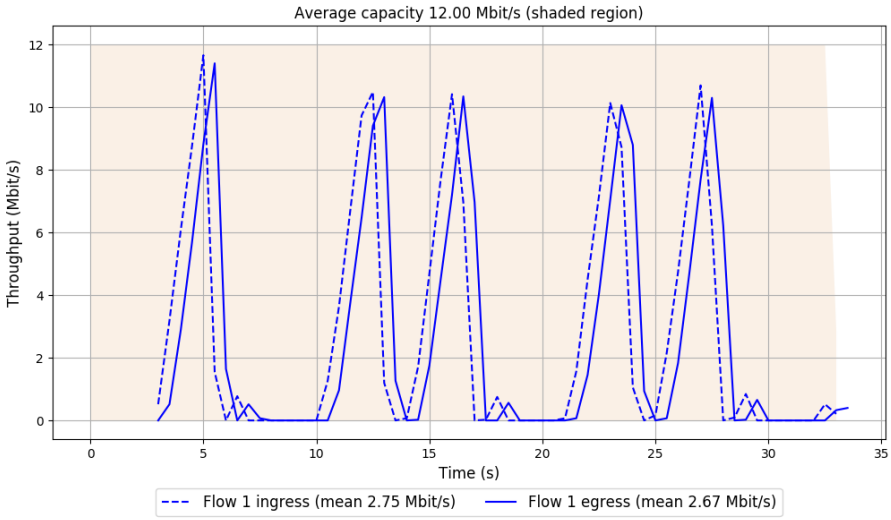


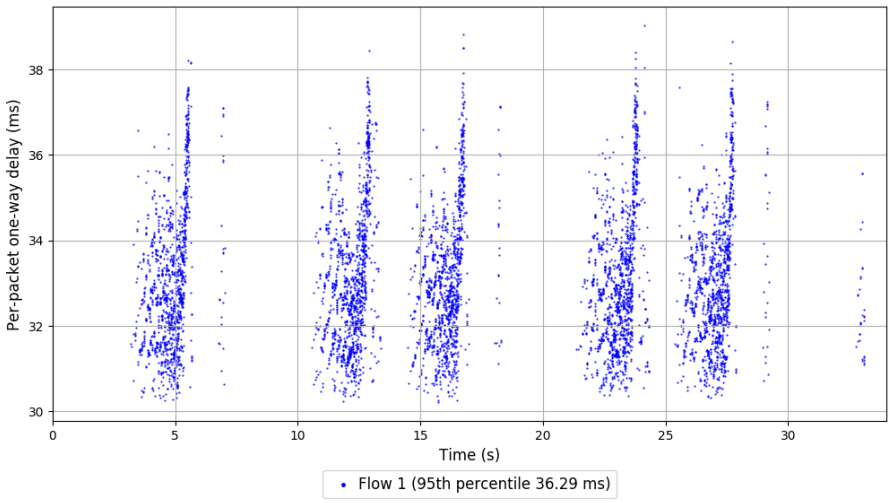
```
Run 3: Statistics of LEDBAT

Start at: 2020-04-16 09:33:38
End at: 2020-04-16 09:34:08

# Below is generated by plot.py at 2020-04-16 09:46:39
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 2.67 Mbit/s (22.2% utilization)
95th percentile per-packet one-way delay: 36.286 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 36.286 ms
Loss rate: 2.87%
```

Run 3: Report of LEDBAT — Data Link



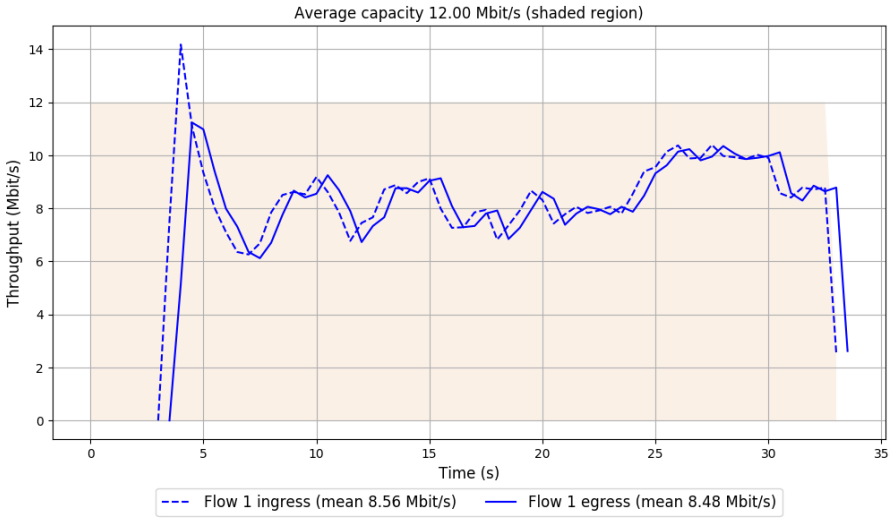


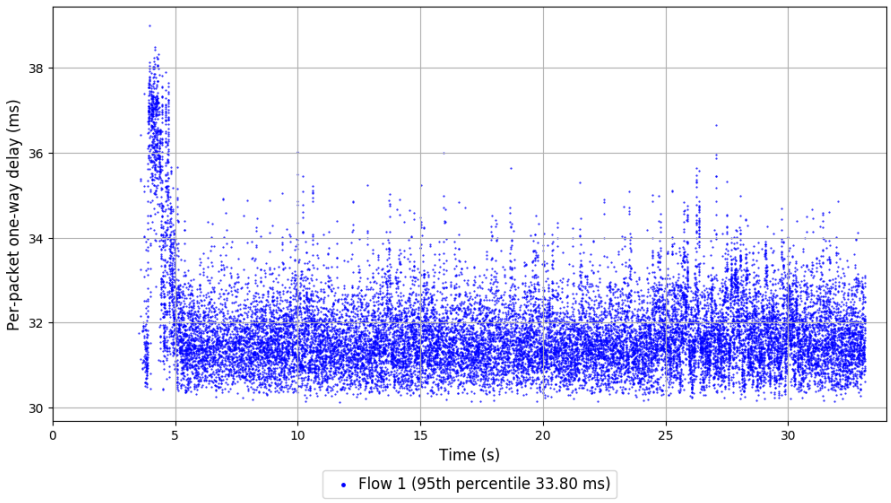
```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 09:08:18
End at: 2020-04-16 09:08:48

# Below is generated by plot.py at 2020-04-16 09:46:46
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.48 Mbit/s (70.7% utilization)
95th percentile per-packet one-way delay: 33.796 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 33.796 ms
Loss rate: 1.06%
```

Run 1: Report of Muses_DecisionTree — Data Link



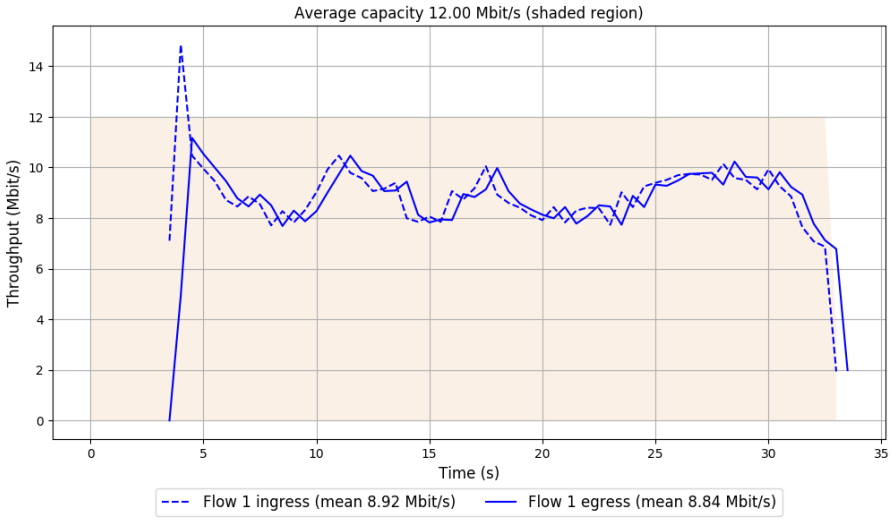


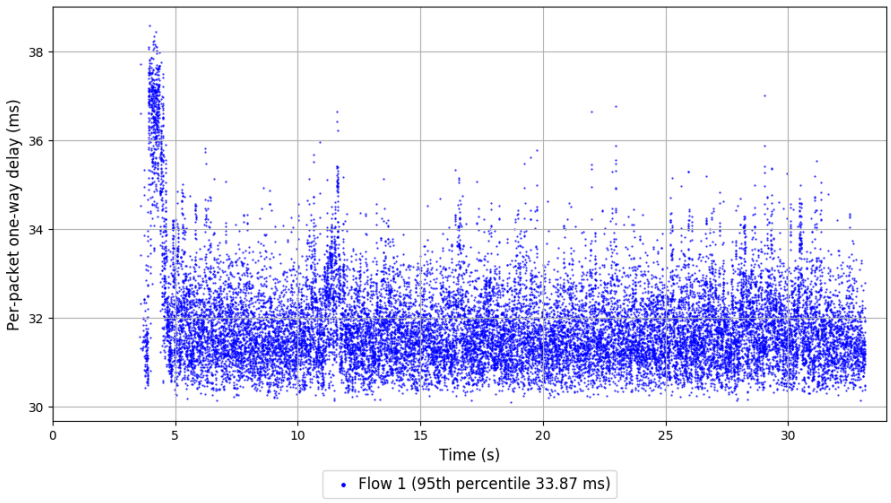
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 09:22:26
End at: 2020-04-16 09:22:56

# Below is generated by plot.py at 2020-04-16 09:46:48
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.84 Mbit/s (73.6% utilization)
95th percentile per-packet one-way delay: 33.865 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 33.865 ms
Loss rate: 1.07%
```

Run 2: Report of Muses_DecisionTree — Data Link



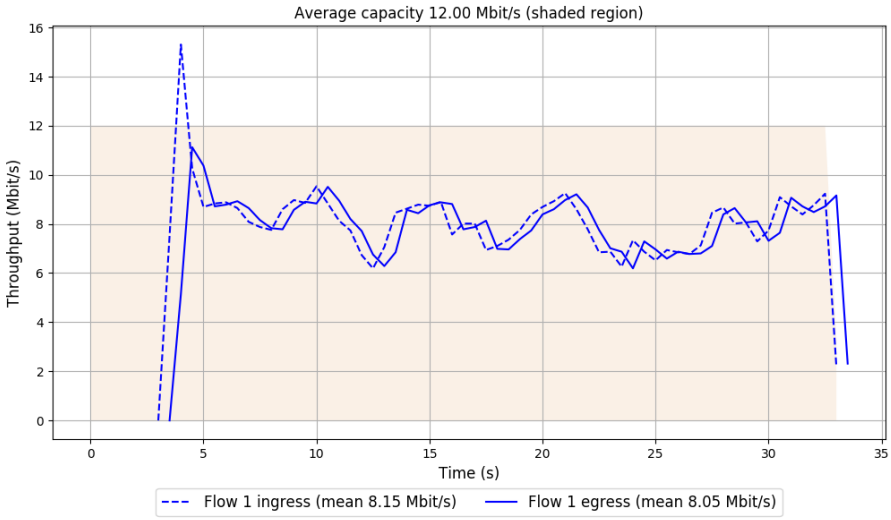


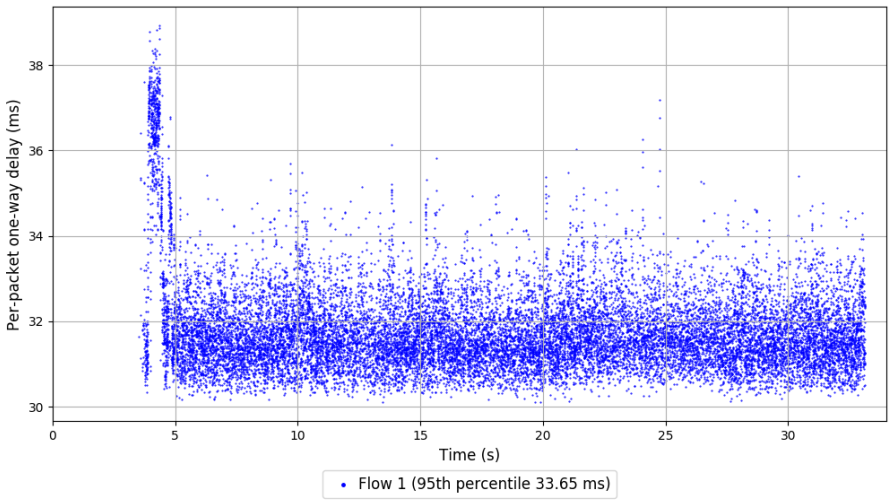
```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-04-16 09:36:34
End at: 2020-04-16 09:37:04

# Below is generated by plot.py at 2020-04-16 09:46:50
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.05 Mbit/s (67.1% utilization)
95th percentile per-packet one-way delay: 33.647 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 33.647 ms
Loss rate: 1.32%
```

Run 3: Report of Muses_DecisionTree — Data Link



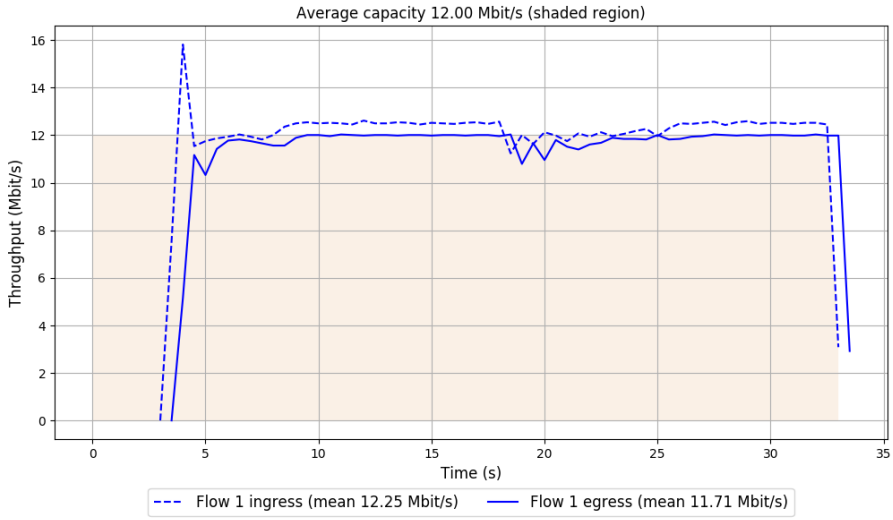


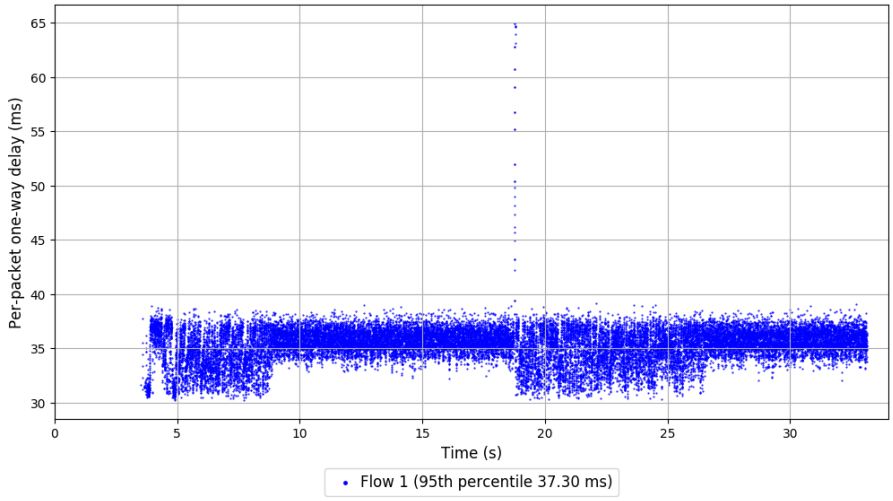
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 09:07:08
End at: 2020-04-16 09:07:38

# Below is generated by plot.py at 2020-04-16 09:47:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.71 Mbit/s (97.6% utilization)
95th percentile per-packet one-way delay: 37.299 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 37.299 ms
Loss rate: 4.51%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link



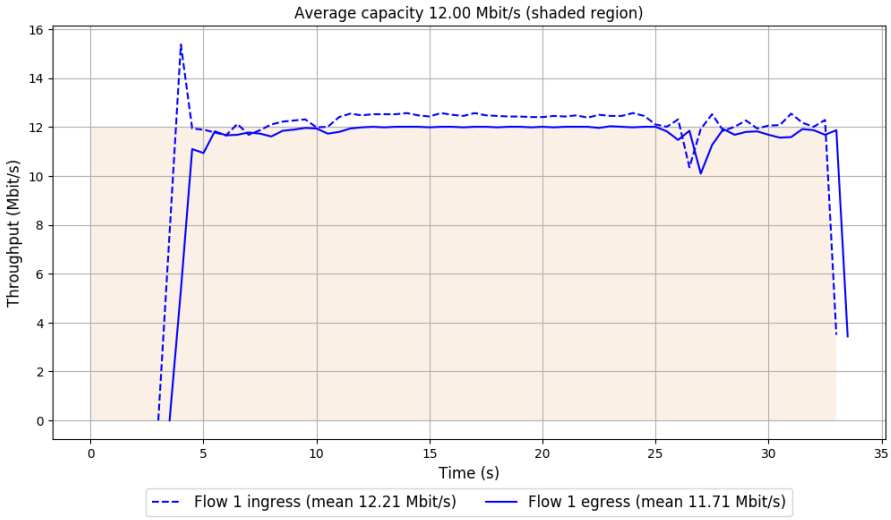


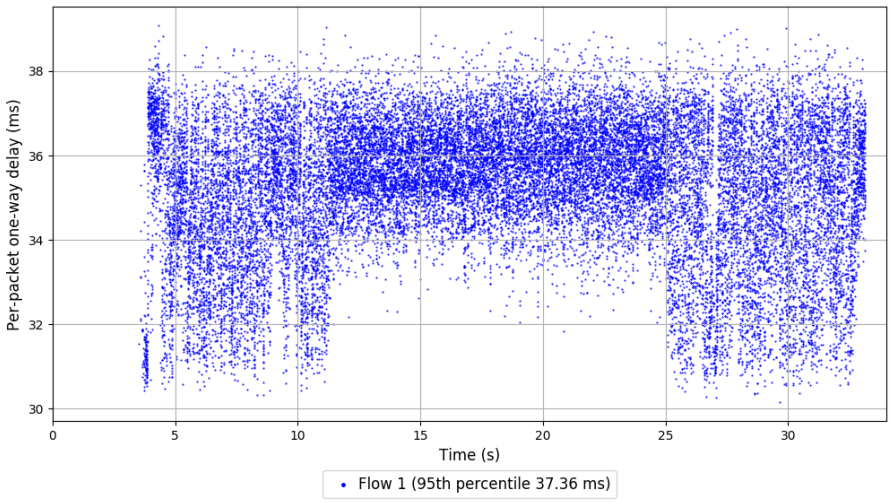
```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 09:21:16
End at: 2020-04-16 09:21:46

# Below is generated by plot.py at 2020-04-16 09:47:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.71 Mbit/s (97.6% utilization)
95th percentile per-packet one-way delay: 37.359 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 37.359 ms
Loss rate: 4.15%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link



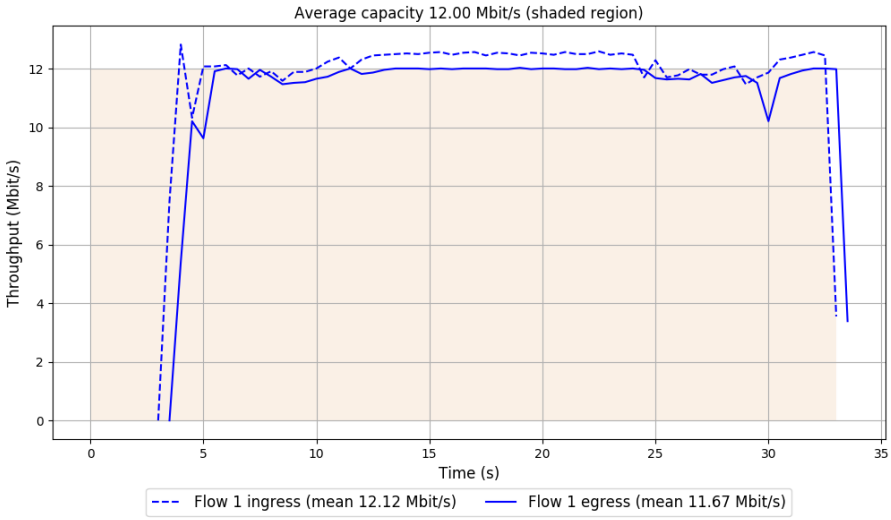


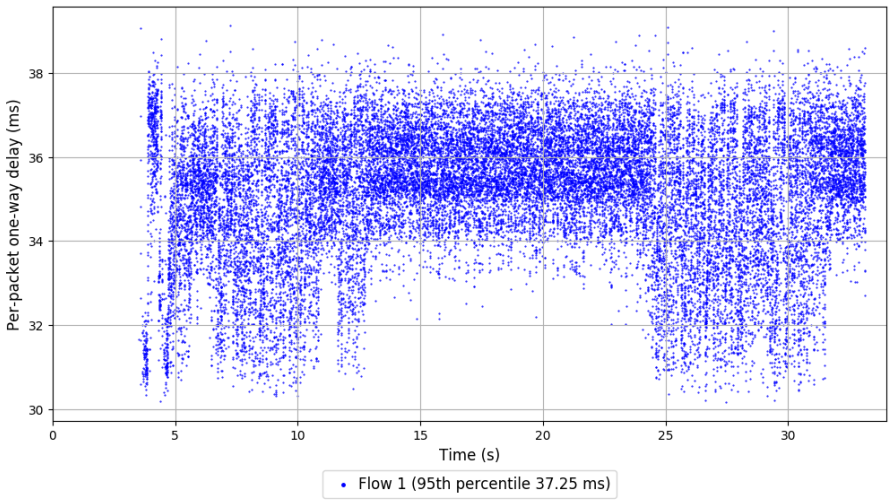
```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-04-16 09:35:23
End at: 2020-04-16 09:35:53

# Below is generated by plot.py at 2020-04-16 09:47:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.67 Mbit/s (97.3% utilization)
95th percentile per-packet one-way delay: 37.247 ms
Loss rate: 3.81%
-- Flow 1:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 37.247 ms
Loss rate: 3.81%
```

Run 3: Report of Muses_DecisionTreeH0 — Data Link



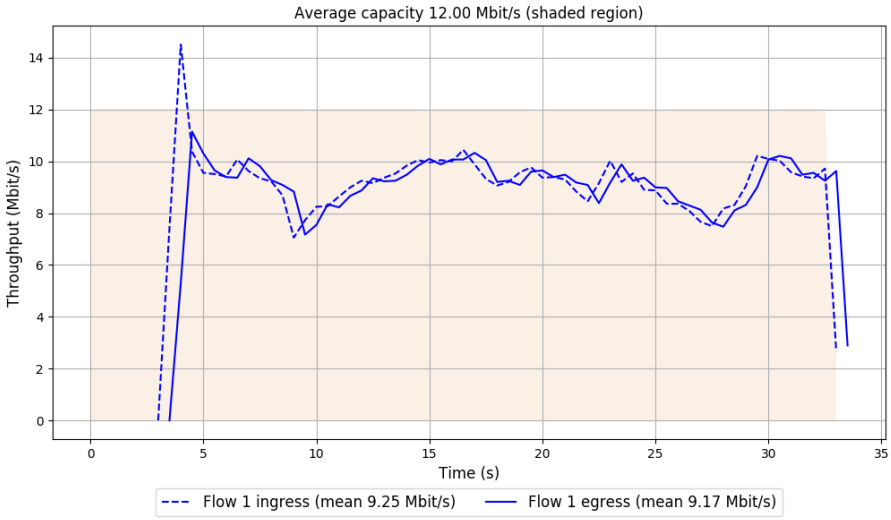


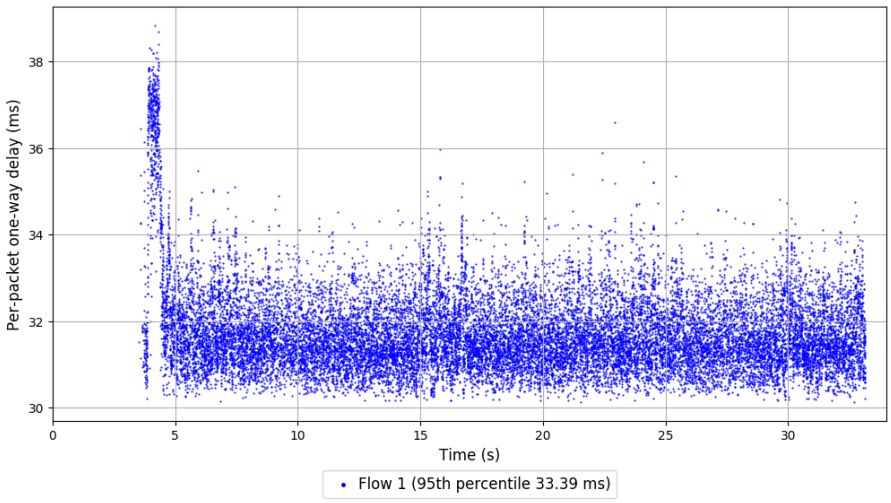
```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 09:07:43
End at: 2020-04-16 09:08:13

# Below is generated by plot.py at 2020-04-16 09:47:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.17 Mbit/s (76.4% utilization)
95th percentile per-packet one-way delay: 33.390 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 33.390 ms
Loss rate: 0.98%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link



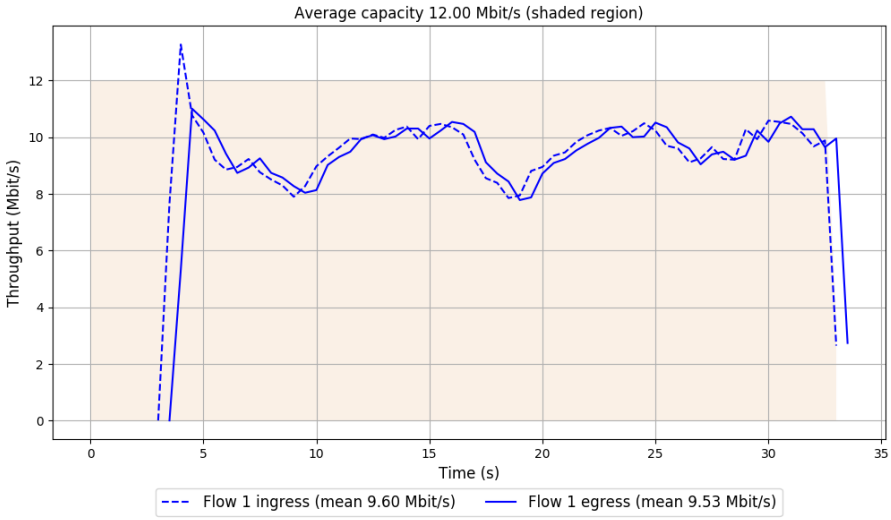


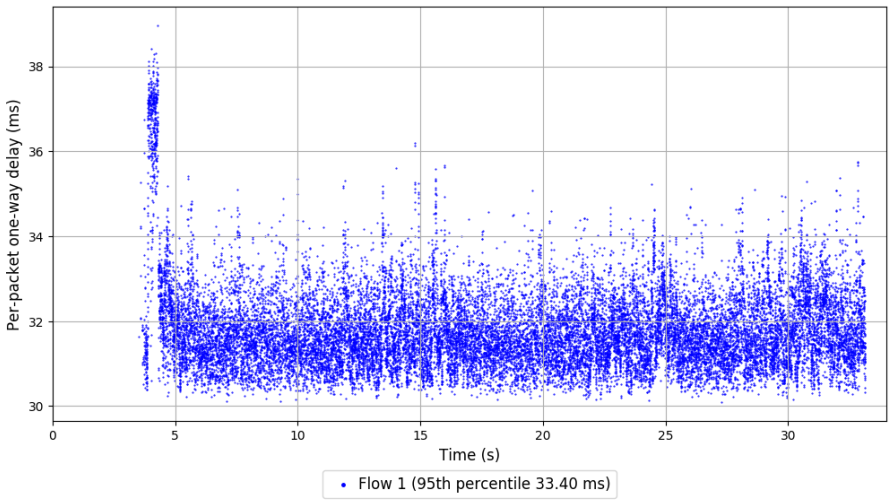
```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 09:21:51
End at: 2020-04-16 09:22:21

# Below is generated by plot.py at 2020-04-16 09:47:05
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.53 Mbit/s (79.4% utilization)
95th percentile per-packet one-way delay: 33.403 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 33.403 ms
Loss rate: 0.79%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link



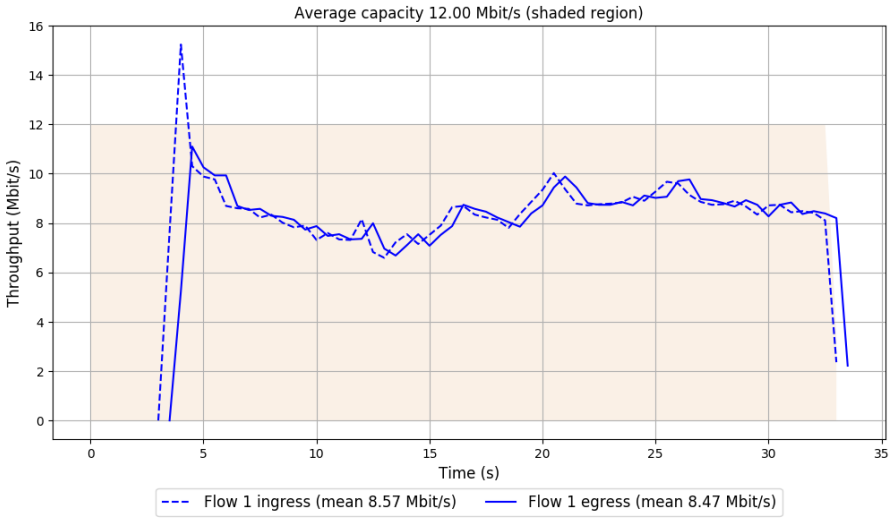


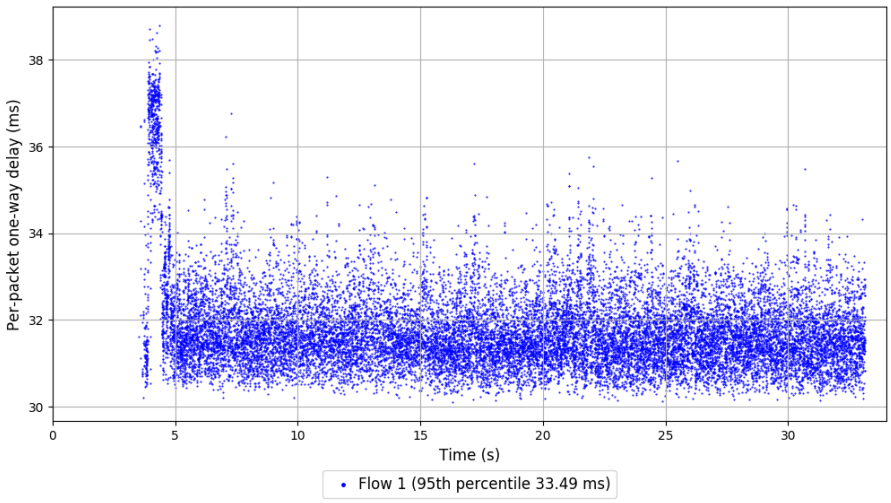
```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-04-16 09:35:59
End at: 2020-04-16 09:36:29

# Below is generated by plot.py at 2020-04-16 09:47:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.47 Mbit/s (70.6% utilization)
95th percentile per-packet one-way delay: 33.491 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 33.491 ms
Loss rate: 1.28%
```

Run 3: Report of Muses_DecisionTreeR0 — Data Link



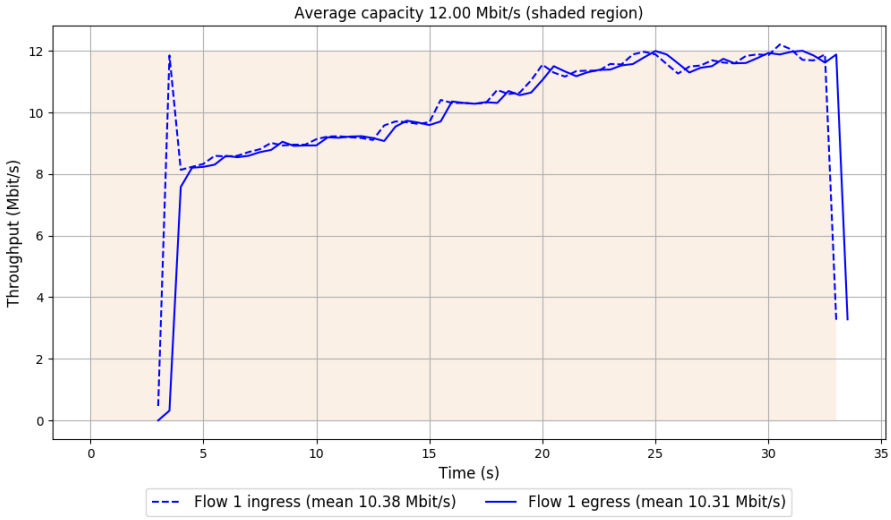


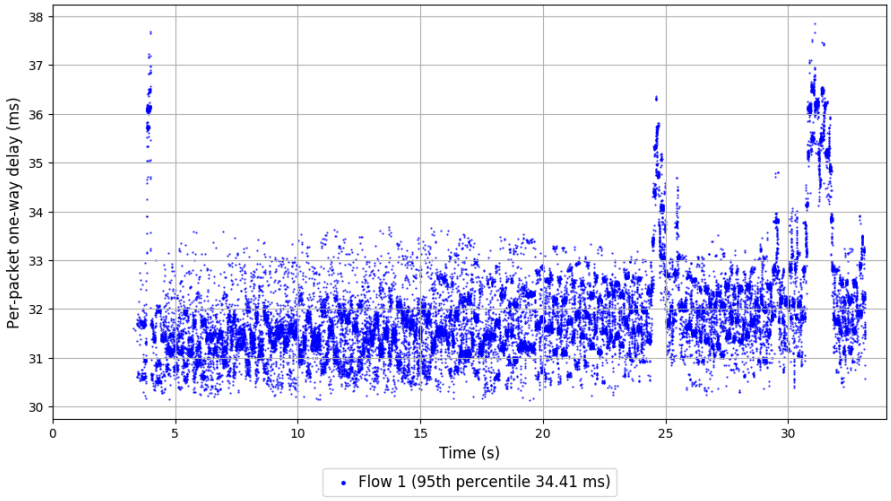
```
Run 1: Statistics of PCC-Allegro

Start at: 2020-04-16 09:04:47
End at: 2020-04-16 09:05:17

# Below is generated by plot.py at 2020-04-16 09:47:13
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.31 Mbit/s (85.9% utilization)
95th percentile per-packet one-way delay: 34.411 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 34.411 ms
Loss rate: 0.77%
```

Run 1: Report of PCC-Allegro — Data Link



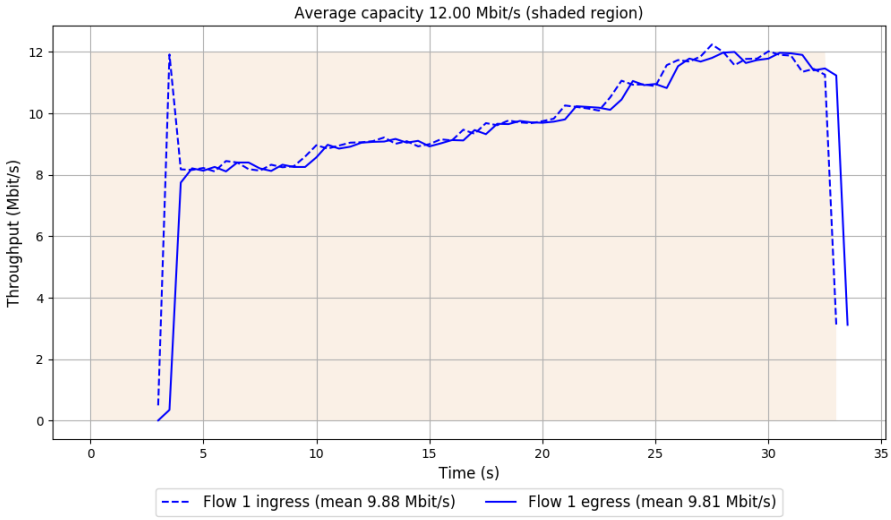


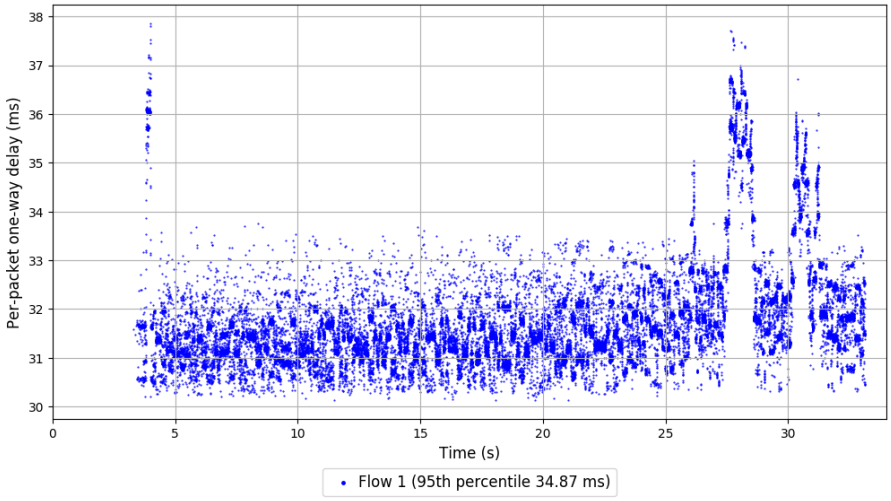
```
Run 2: Statistics of PCC-Allegro

Start at: 2020-04-16 09:18:55
End at: 2020-04-16 09:19:25

# Below is generated by plot.py at 2020-04-16 09:47:15
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.81 Mbit/s (81.7% utilization)
95th percentile per-packet one-way delay: 34.871 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 34.871 ms
Loss rate: 0.81%
```

Run 2: Report of PCC-Allegro — Data Link



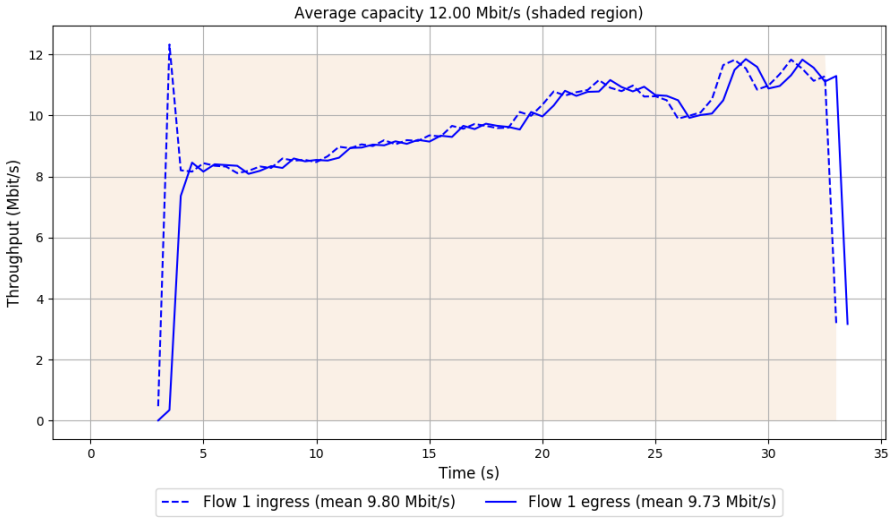


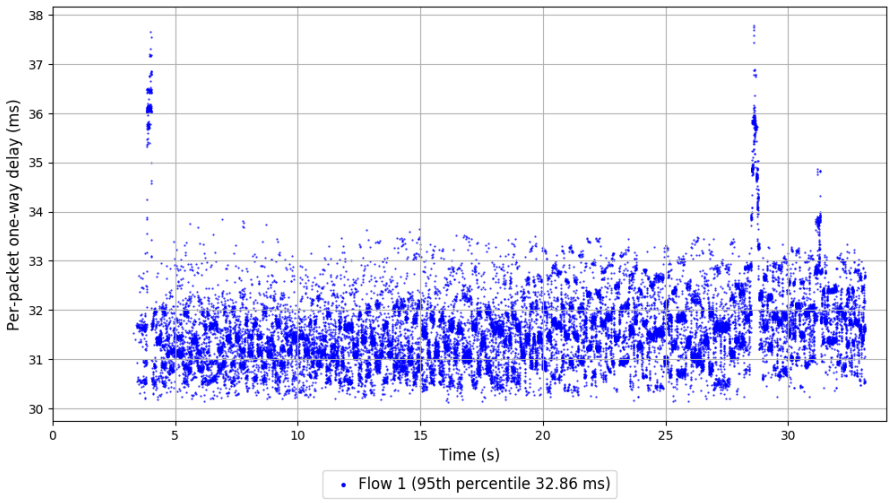
```
Run 3: Statistics of PCC-Allegro

Start at: 2020-04-16 09:33:03
End at: 2020-04-16 09:33:33

# Below is generated by plot.py at 2020-04-16 09:47:22
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.73 Mbit/s (81.1% utilization)
95th percentile per-packet one-way delay: 32.864 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 32.864 ms
Loss rate: 0.87%
```

Run 3: Report of PCC-Allegro — Data Link



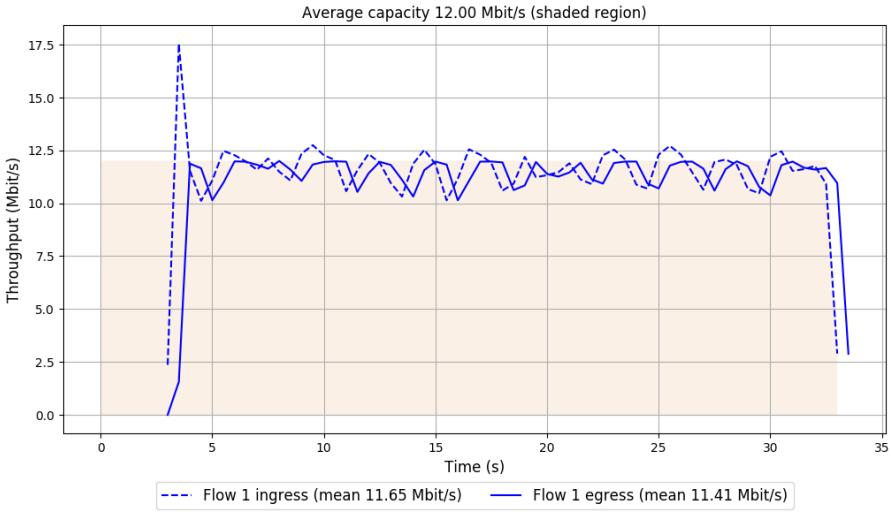


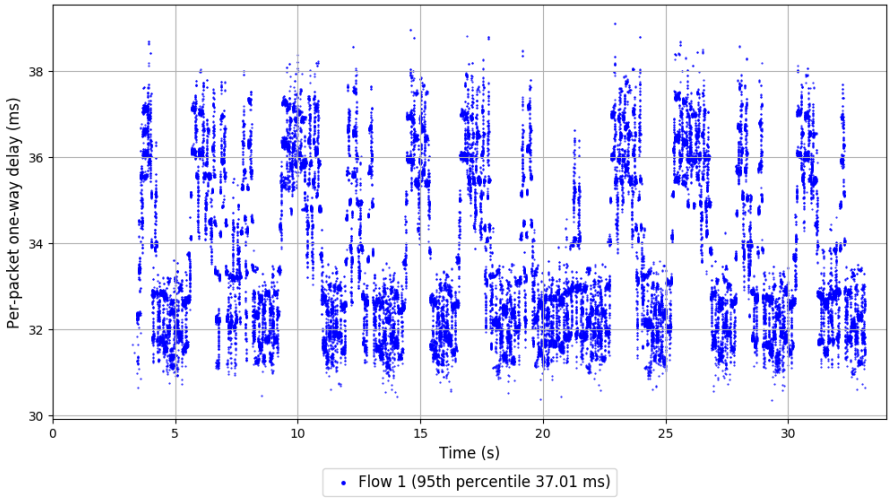
```
Run 1: Statistics of PCC-Expr

Start at: 2020-04-16 09:10:39
End at: 2020-04-16 09:11:09

# Below is generated by plot.py at 2020-04-16 09:47:43
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.41 Mbit/s (95.1% utilization)
95th percentile per-packet one-way delay: 37.006 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 37.006 ms
Loss rate: 2.19%
```

Run 1: Report of PCC-Expr — Data Link



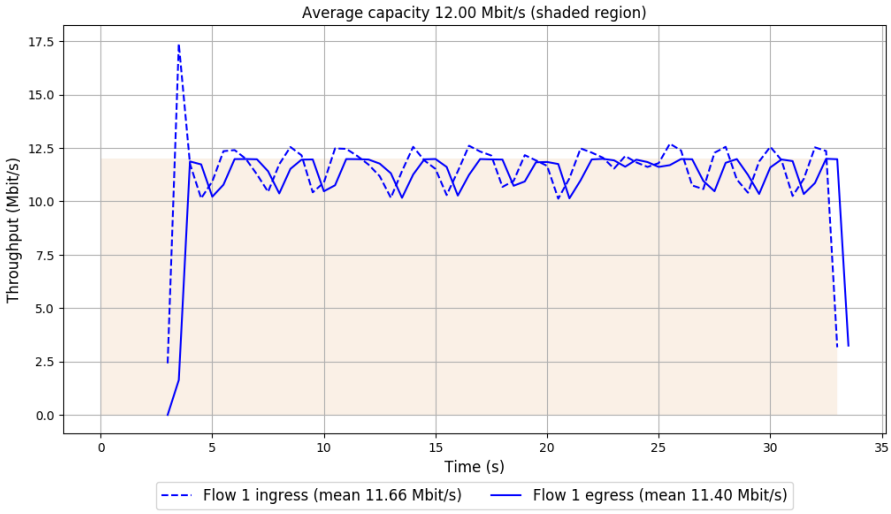


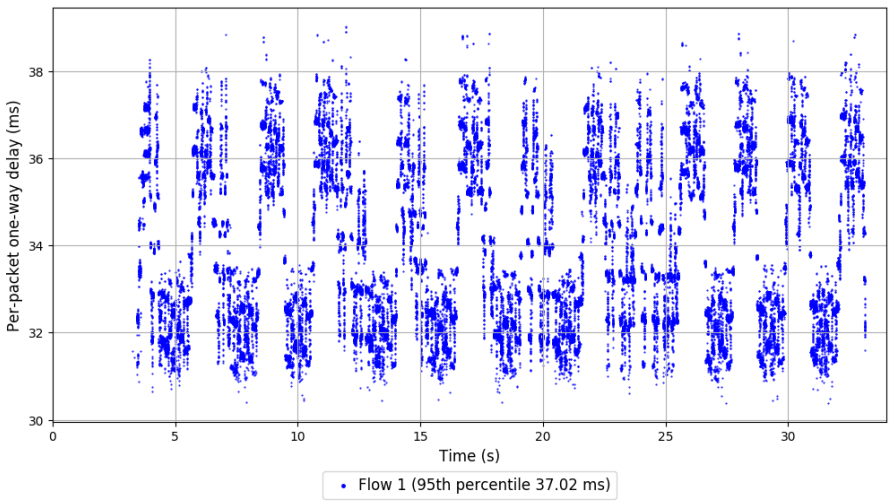
```
Run 2: Statistics of PCC-Expr

Start at: 2020-04-16 09:24:48
End at: 2020-04-16 09:25:18

# Below is generated by plot.py at 2020-04-16 09:47:46
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.40 Mbit/s (95.0% utilization)
95th percentile per-packet one-way delay: 37.021 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 37.021 ms
Loss rate: 2.35%
```

Run 2: Report of PCC-Expr — Data Link



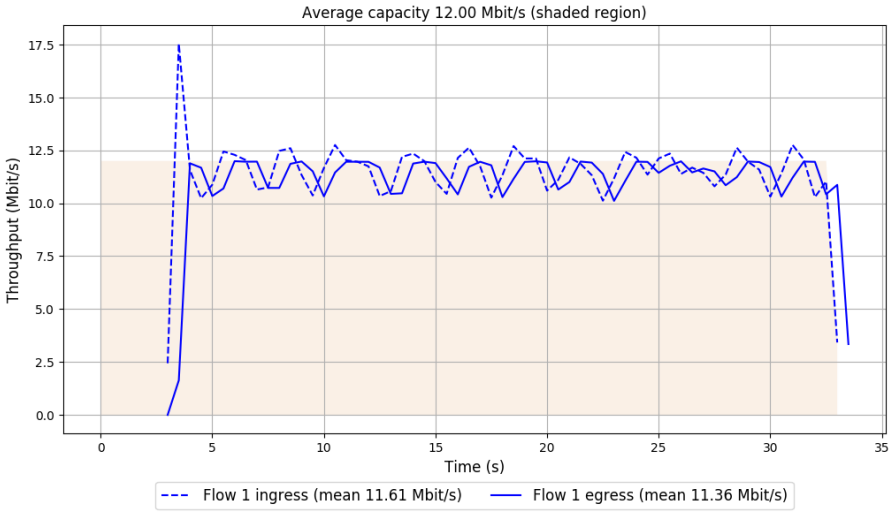


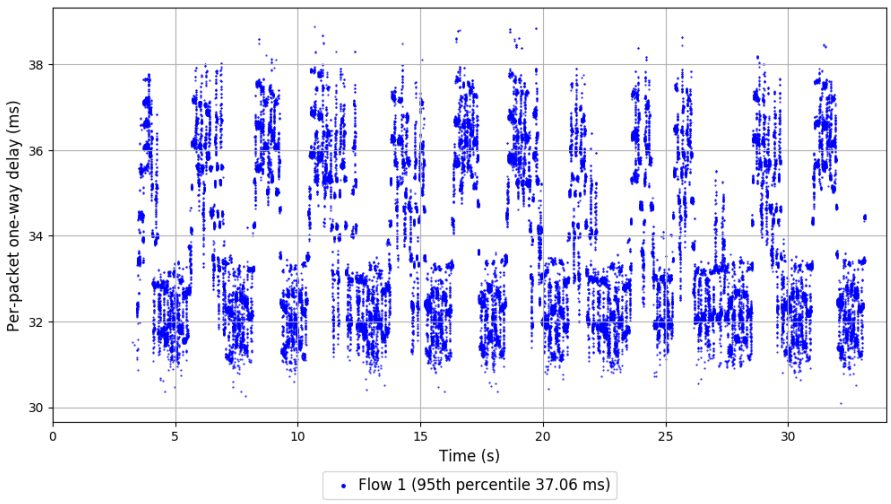
```
Run 3: Statistics of PCC-Expr

Start at: 2020-04-16 09:38:54
End at: 2020-04-16 09:39:24

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.36 Mbit/s (94.7% utilization)
95th percentile per-packet one-way delay: 37.065 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 11.36 Mbit/s
95th percentile per-packet one-way delay: 37.065 ms
Loss rate: 2.25%
```

Run 3: Report of PCC-Expr — Data Link



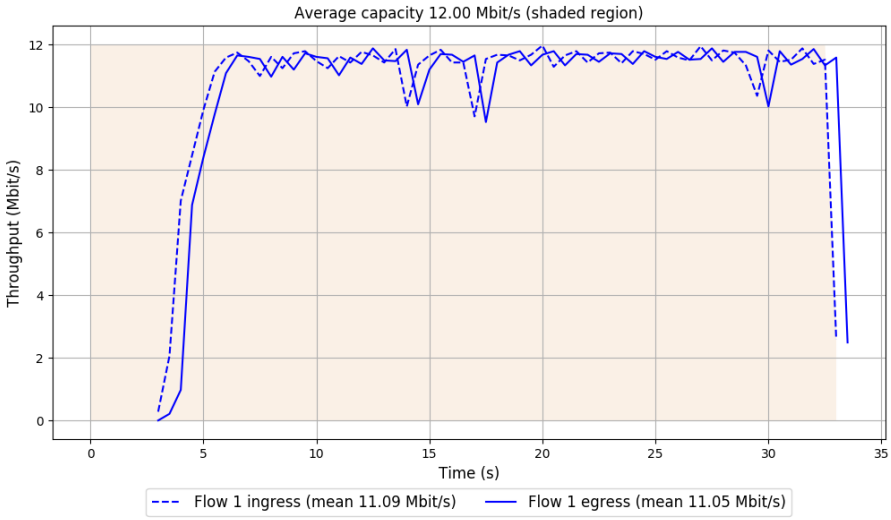


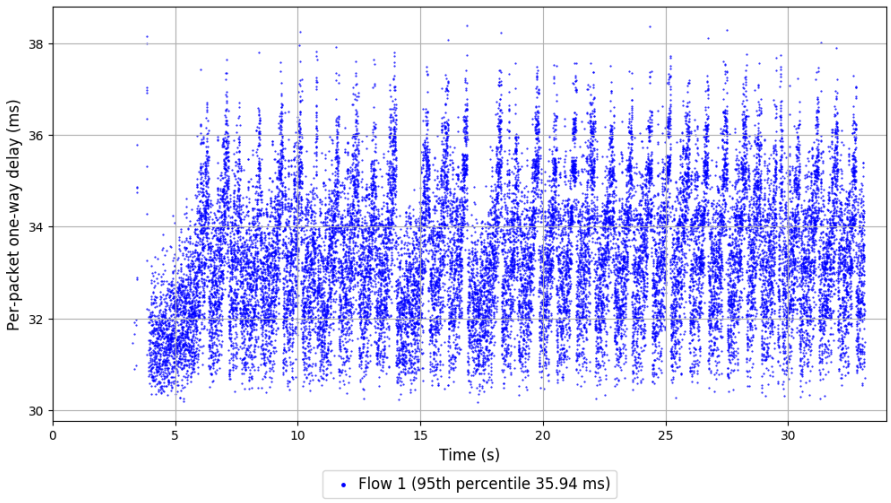
```
Run 1: Statistics of QUIC Cubic

Start at: 2020-04-16 09:04:12
End at: 2020-04-16 09:04:42

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.05 Mbit/s (92.1% utilization)
95th percentile per-packet one-way delay: 35.939 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 35.939 ms
Loss rate: 0.46%
```

Run 1: Report of QUIC Cubic — Data Link



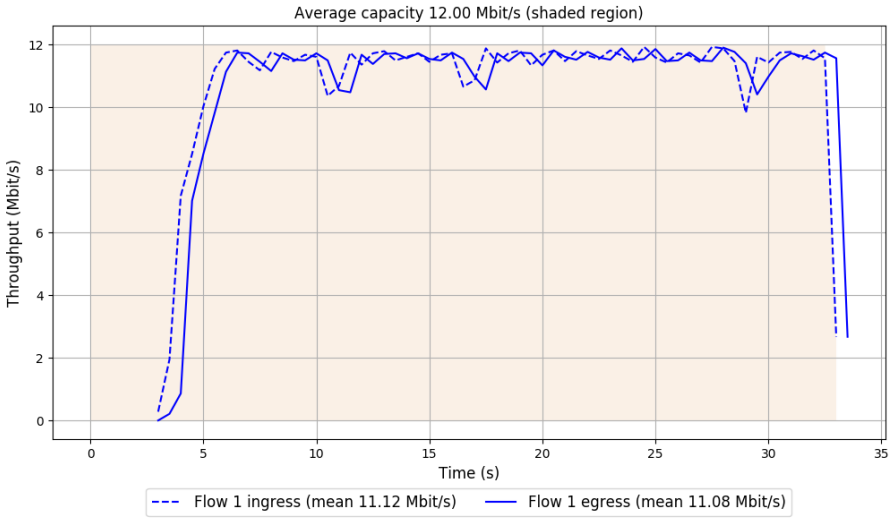


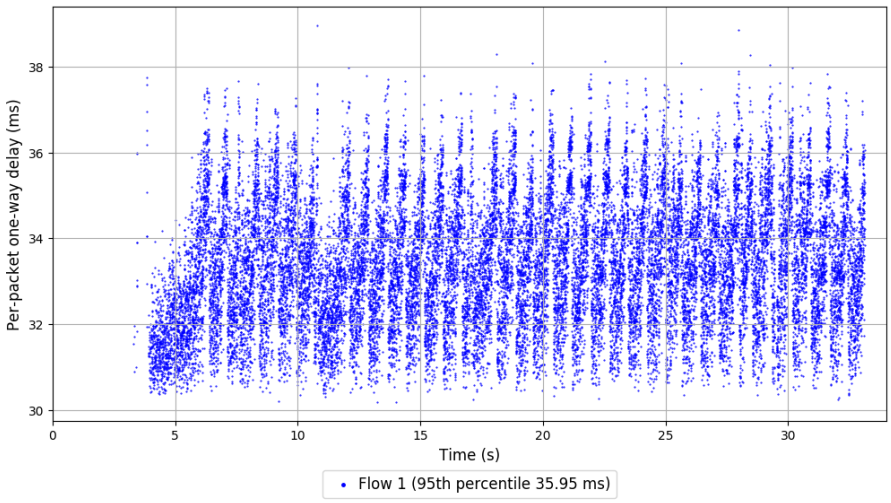
```
Run 2: Statistics of QUIC Cubic

Start at: 2020-04-16 09:18:20
End at: 2020-04-16 09:18:50

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 35.950 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 35.950 ms
Loss rate: 0.46%
```

Run 2: Report of QUIC Cubic — Data Link



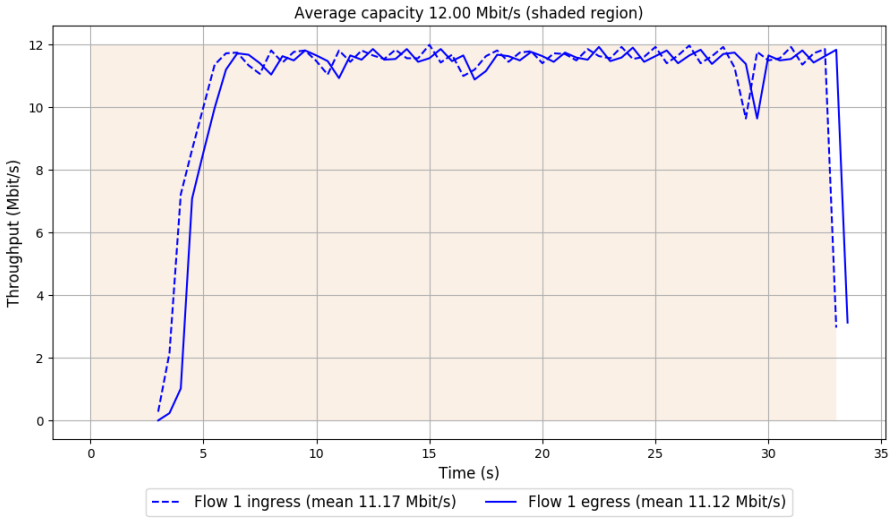


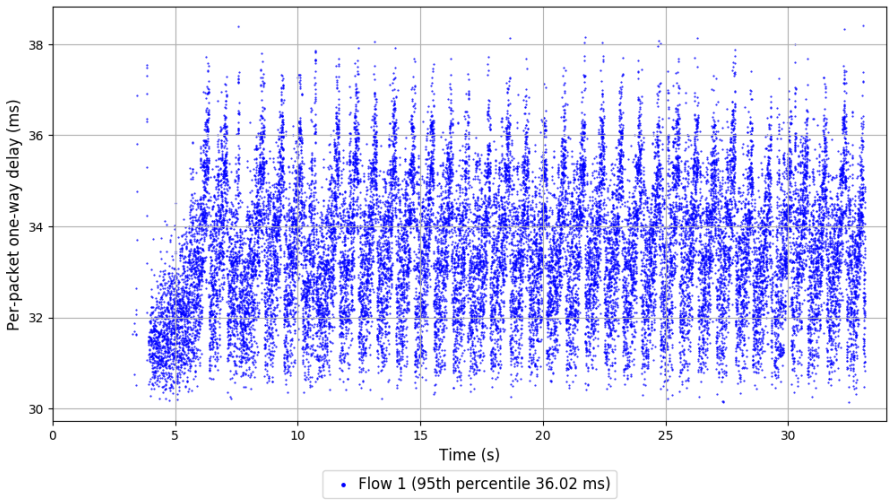
```
Run 3: Statistics of QUIC Cubic

Start at: 2020-04-16 09:32:28
End at: 2020-04-16 09:32:58

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.12 Mbit/s (92.7% utilization)
95th percentile per-packet one-way delay: 36.016 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 11.12 Mbit/s
95th percentile per-packet one-way delay: 36.016 ms
Loss rate: 0.49%
```

Run 3: Report of QUIC Cubic — Data Link



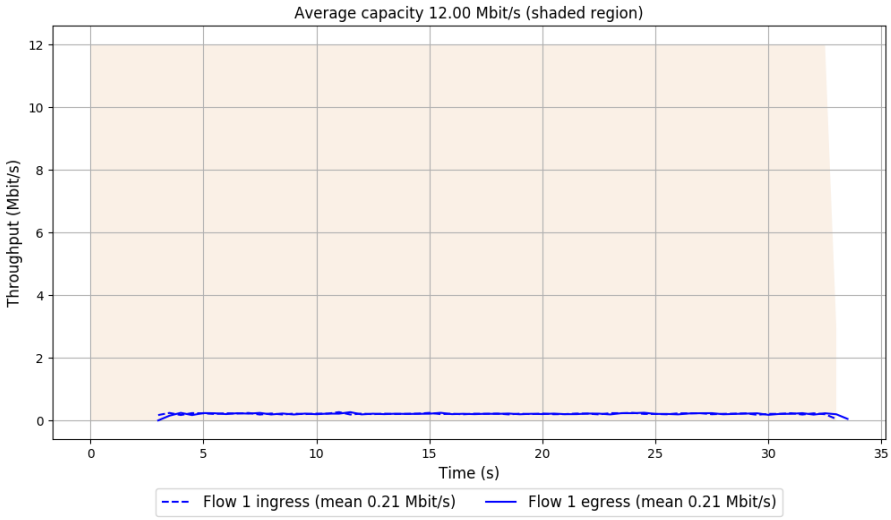


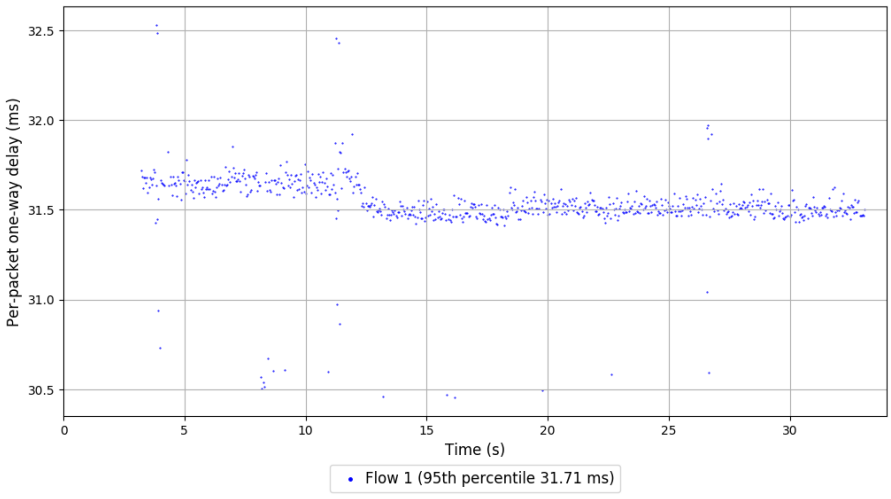
```
Run 1: Statistics of SCReAM

Start at: 2020-04-16 09:10:04
End at: 2020-04-16 09:10:34

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.706 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.706 ms
Loss rate: 0.13%
```

Run 1: Report of SCReAM — Data Link



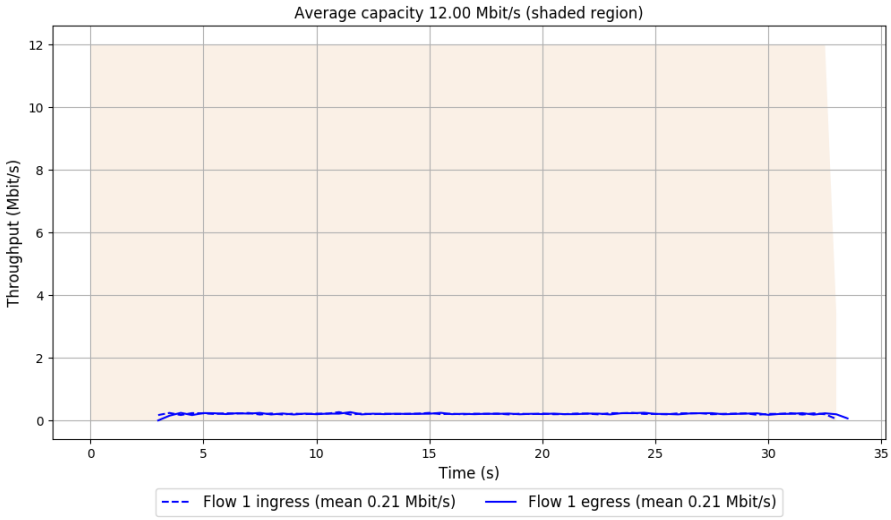


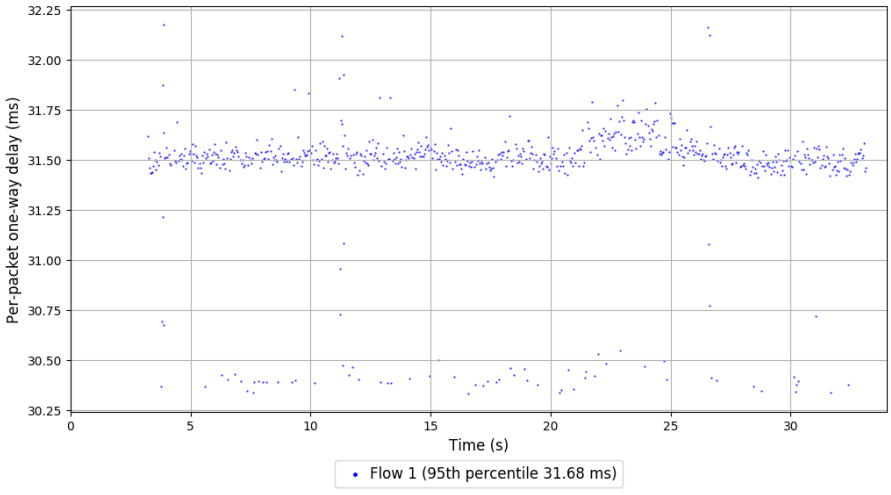
```
Run 2: Statistics of SCReAM

Start at: 2020-04-16 09:24:13
End at: 2020-04-16 09:24:43

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.679 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



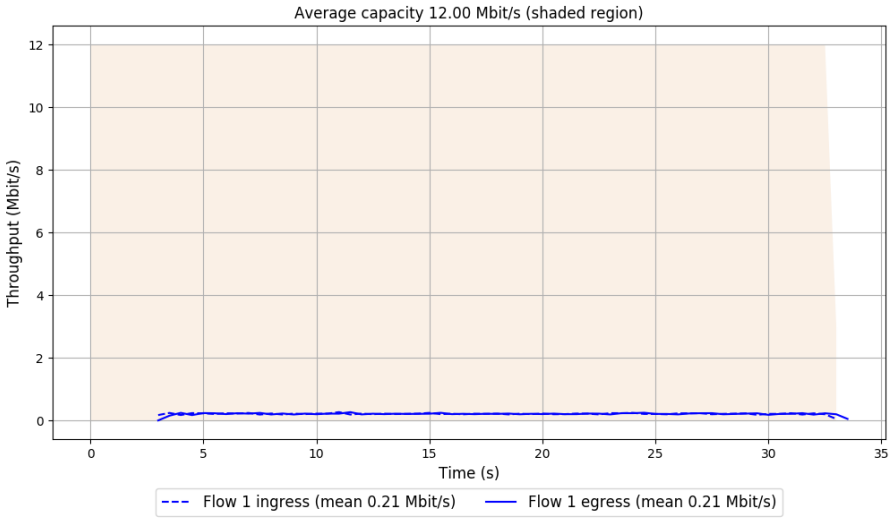


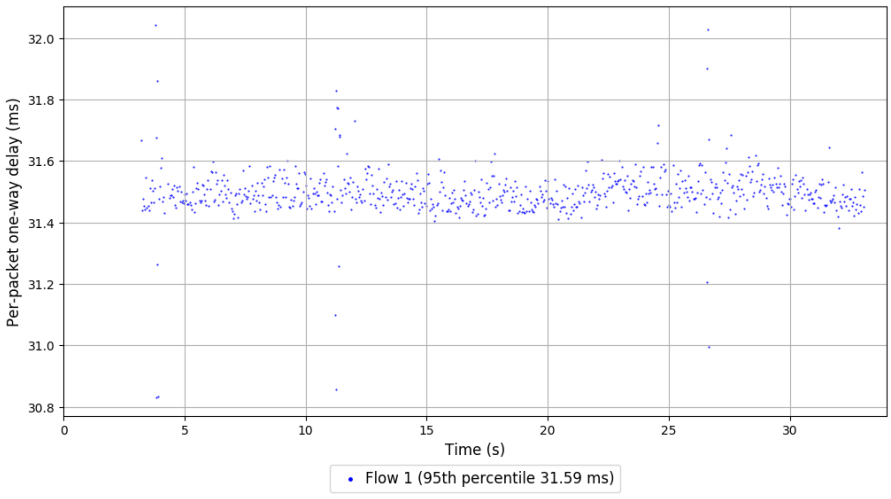
```
Run 3: Statistics of SCReAM

Start at: 2020-04-16 09:38:19
End at: 2020-04-16 09:38:49

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.21 Mbit/s (1.8% utilization)
95th percentile per-packet one-way delay: 31.588 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.588 ms
Loss rate: 0.13%
```

Run 3: Report of SCReAM — Data Link



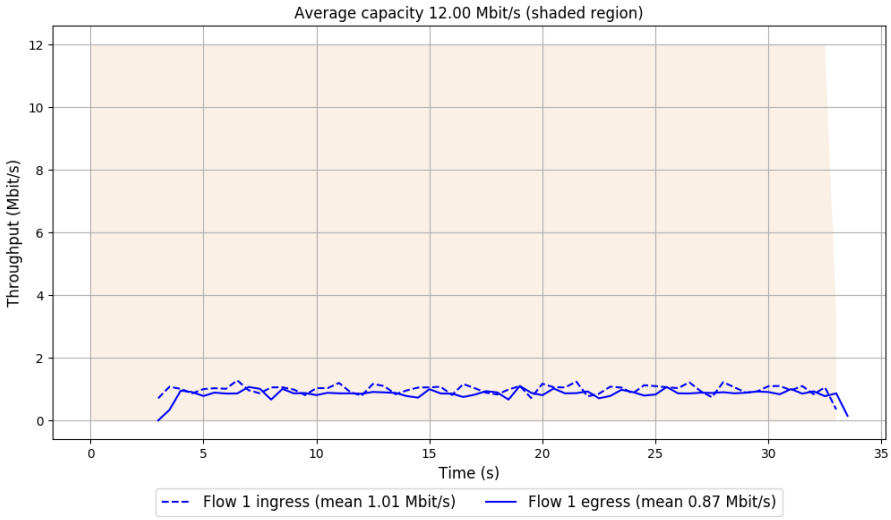


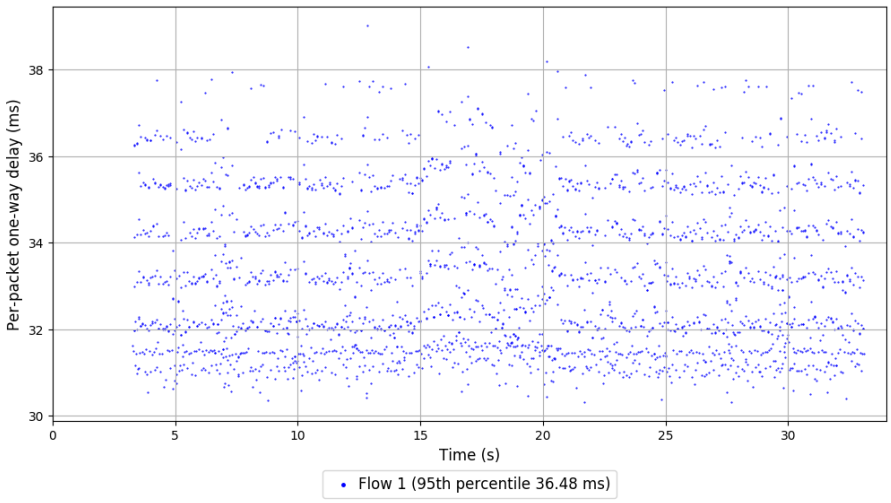
```
Run 1: Statistics of Sprout

Start at: 2020-04-16 09:05:57
End at: 2020-04-16 09:06:27

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.87 Mbit/s (7.3% utilization)
95th percentile per-packet one-way delay: 36.482 ms
Loss rate: 13.48%
-- Flow 1:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 36.482 ms
Loss rate: 13.48%
```

Run 1: Report of Sprout — Data Link



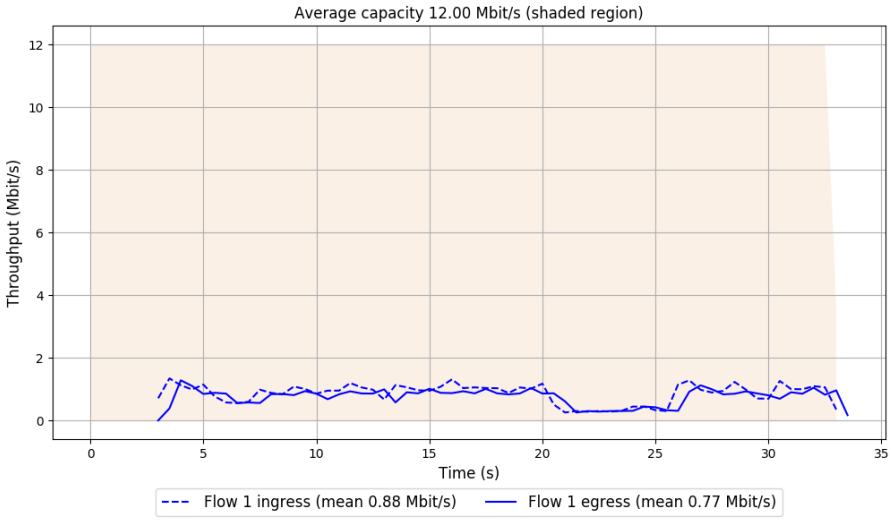


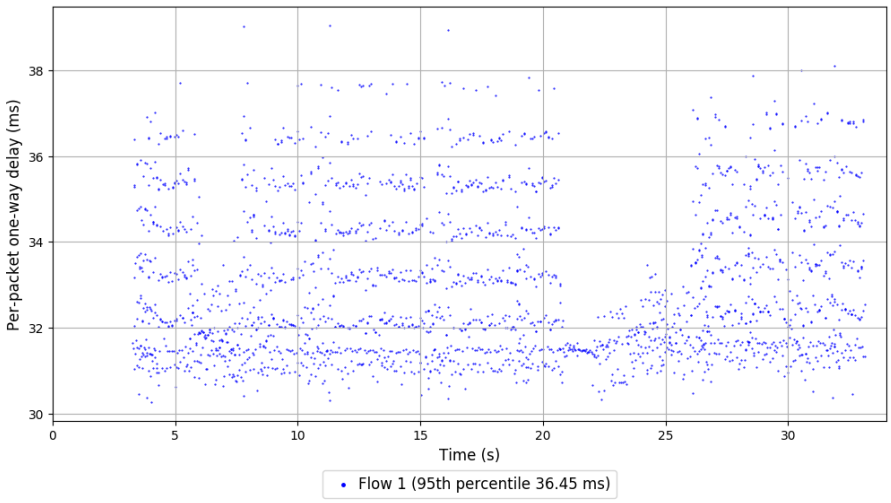
```
Run 2: Statistics of Sprout

Start at: 2020-04-16 09:20:06
End at: 2020-04-16 09:20:36

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.77 Mbit/s (6.5% utilization)
95th percentile per-packet one-way delay: 36.454 ms
Loss rate: 11.54%
-- Flow 1:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 36.454 ms
Loss rate: 11.54%
```

Run 2: Report of Sprout — Data Link



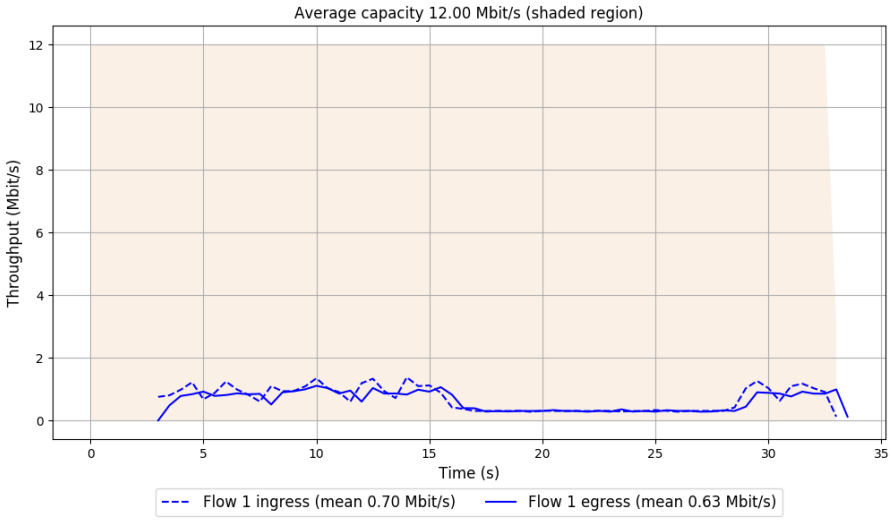


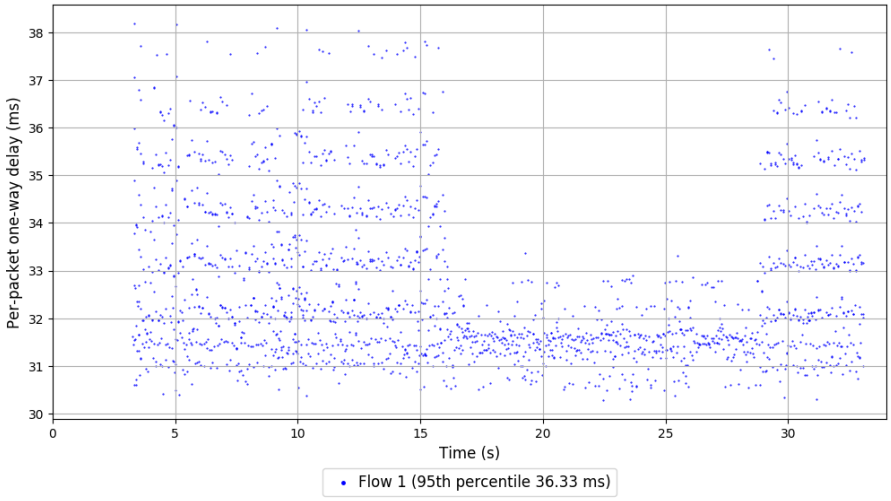
```
Run 3: Statistics of Sprout

Start at: 2020-04-16 09:34:13
End at: 2020-04-16 09:34:43

# Below is generated by plot.py at 2020-04-16 09:47:47
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 0.63 Mbit/s (5.3% utilization)
95th percentile per-packet one-way delay: 36.330 ms
Loss rate: 10.10%
-- Flow 1:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 36.330 ms
Loss rate: 10.10%
```

Run 3: Report of Sprout — Data Link



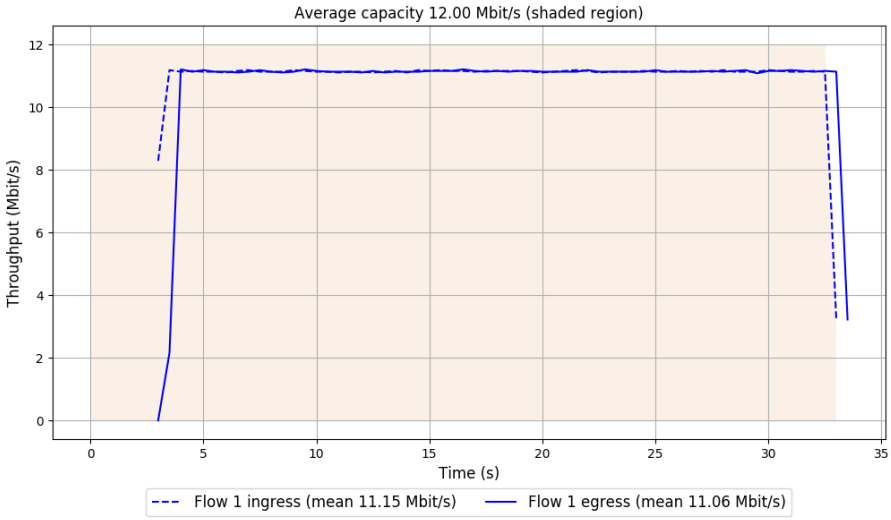


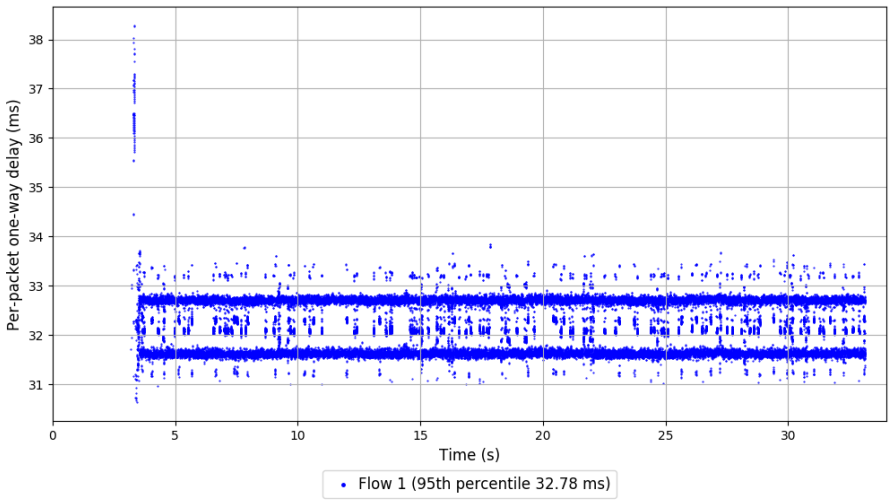
```
Run 1: Statistics of TaoVA-100x

Start at: 2020-04-16 09:08:53
End at: 2020-04-16 09:09:23

# Below is generated by plot.py at 2020-04-16 09:48:11
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.06 Mbit/s (92.2% utilization)
95th percentile per-packet one-way delay: 32.778 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 32.778 ms
Loss rate: 0.91%
```

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



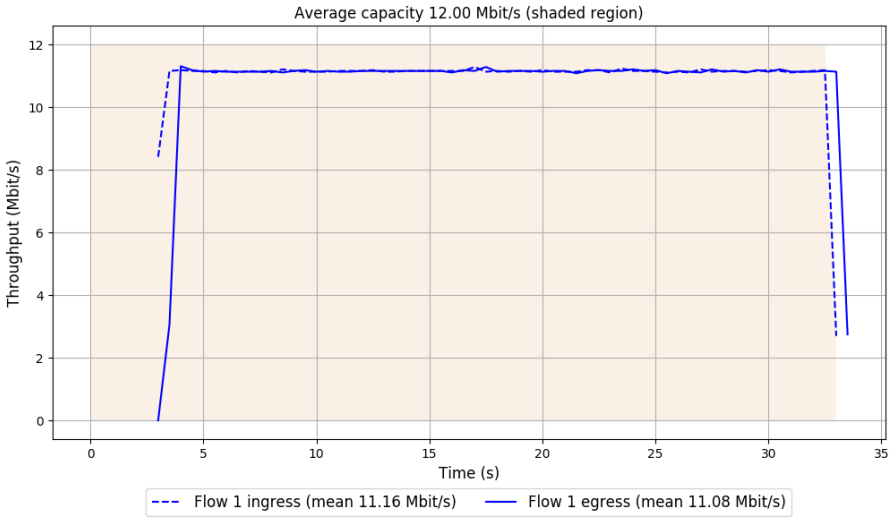


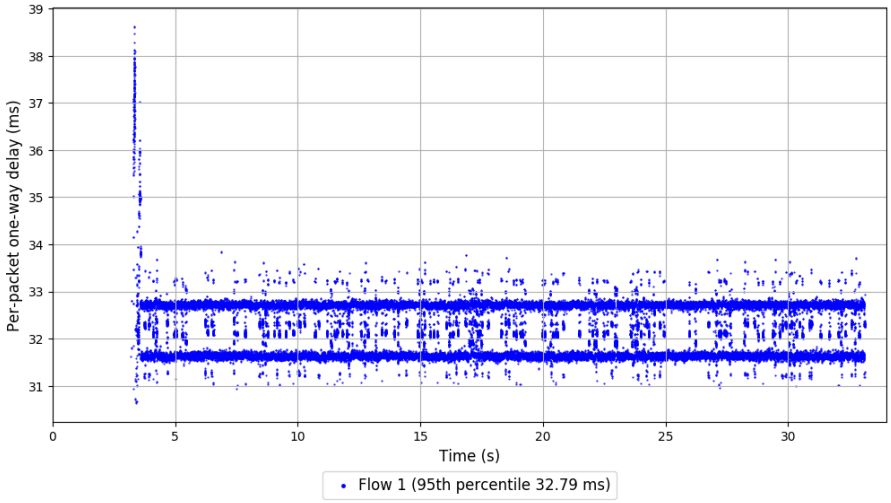
```
Run 2: Statistics of TaoVA-100x

Start at: 2020-04-16 09:23:01
End at: 2020-04-16 09:23:31

# Below is generated by plot.py at 2020-04-16 09:48:14
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.4% utilization)
95th percentile per-packet one-way delay: 32.786 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 32.786 ms
Loss rate: 0.78%
```

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



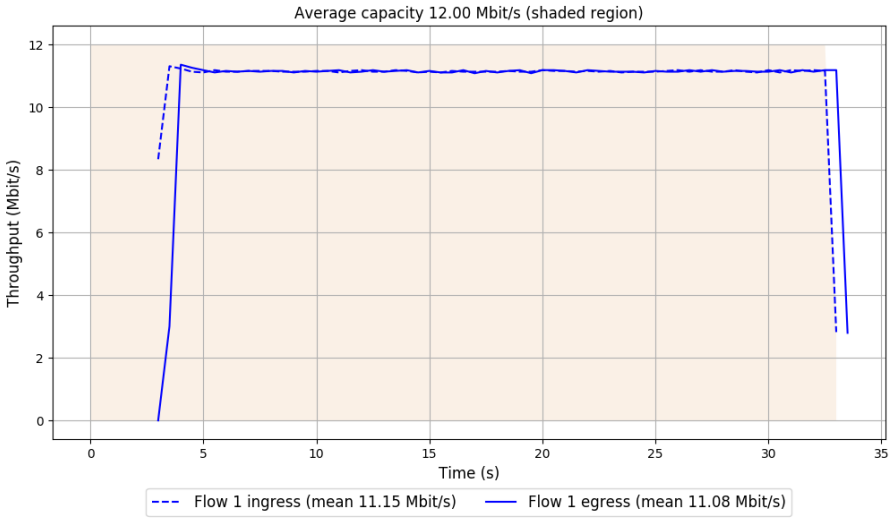


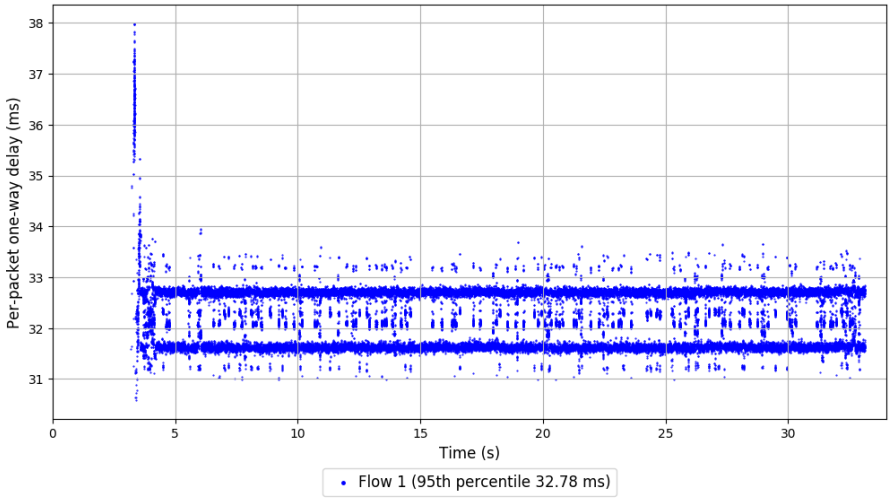
```
Run 3: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2020-04-16 09:48:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.08 Mbit/s (92.3% utilization)
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 11.08 Mbit/s
95th percentile per-packet one-way delay: 32.782 ms
Loss rate: 0.78%
```

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



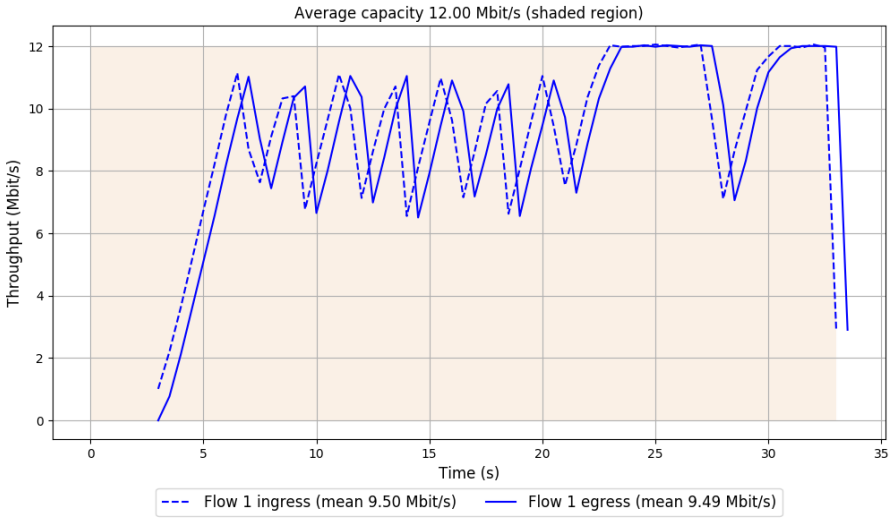


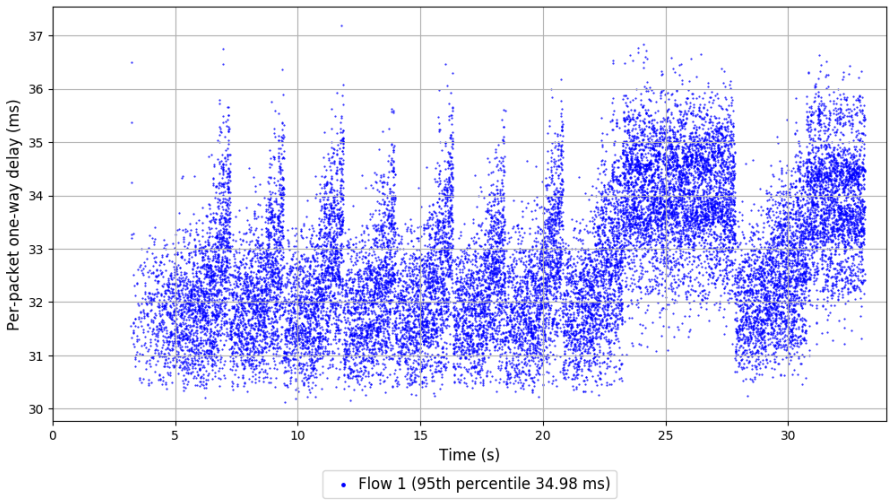
```
Run 1: Statistics of TCP Vegas

Start at: 2020-04-16 09:15:59
End at: 2020-04-16 09:16:29

# Below is generated by plot.py at 2020-04-16 09:48:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.49 Mbit/s (79.1% utilization)
95th percentile per-packet one-way delay: 34.975 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 34.975 ms
Loss rate: 0.21%
```

Run 1: Report of TCP Vegas — Data Link



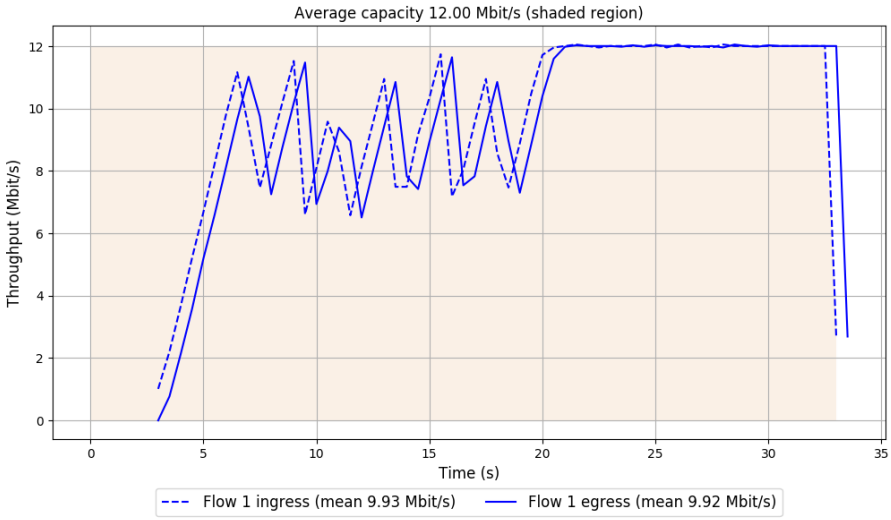


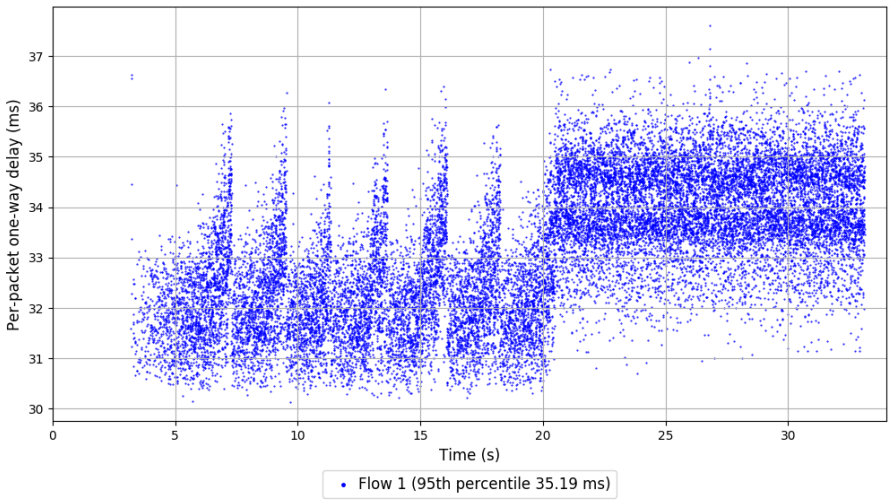
```
Run 2: Statistics of TCP Vegas

Start at: 2020-04-16 09:30:07
End at: 2020-04-16 09:30:37

# Below is generated by plot.py at 2020-04-16 09:48:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 9.92 Mbit/s (82.6% utilization)
95th percentile per-packet one-way delay: 35.190 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 35.190 ms
Loss rate: 0.19%
```

Run 2: Report of TCP Vegas — Data Link



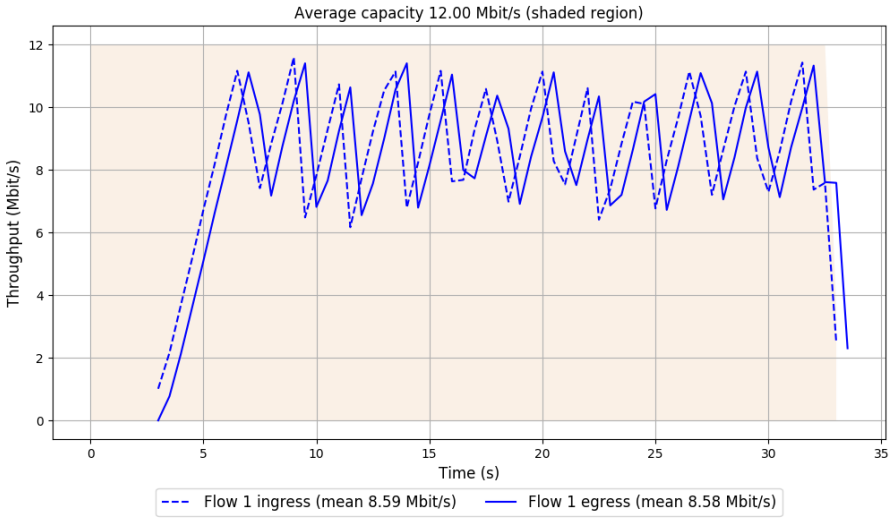


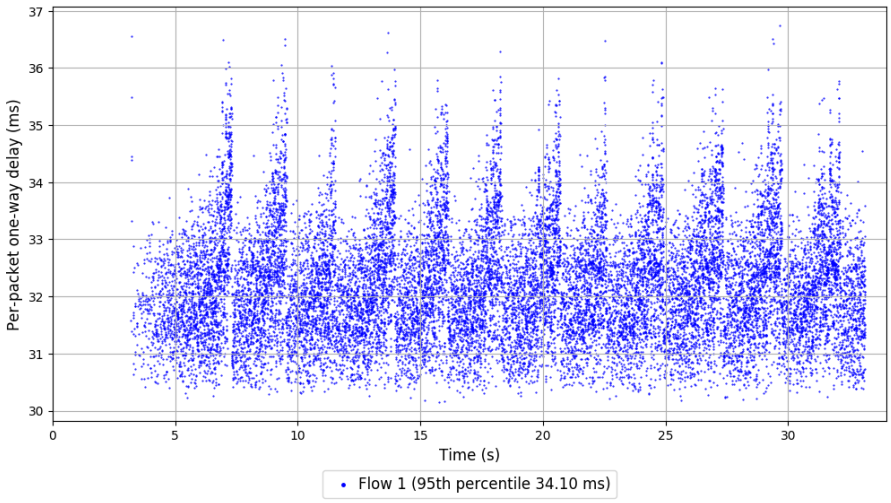
```
Run 3: Statistics of TCP Vegas

Start at: 2020-04-16 09:44:11
End at: 2020-04-16 09:44:41

# Below is generated by plot.py at 2020-04-16 09:48:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 8.58 Mbit/s (71.5% utilization)
95th percentile per-packet one-way delay: 34.105 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 34.105 ms
Loss rate: 0.23%
```

Run 3: Report of TCP Vegas — Data Link



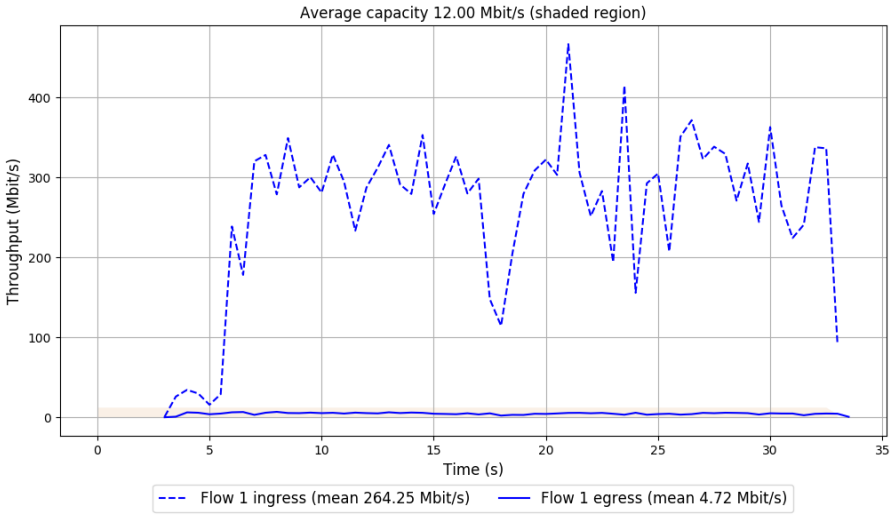


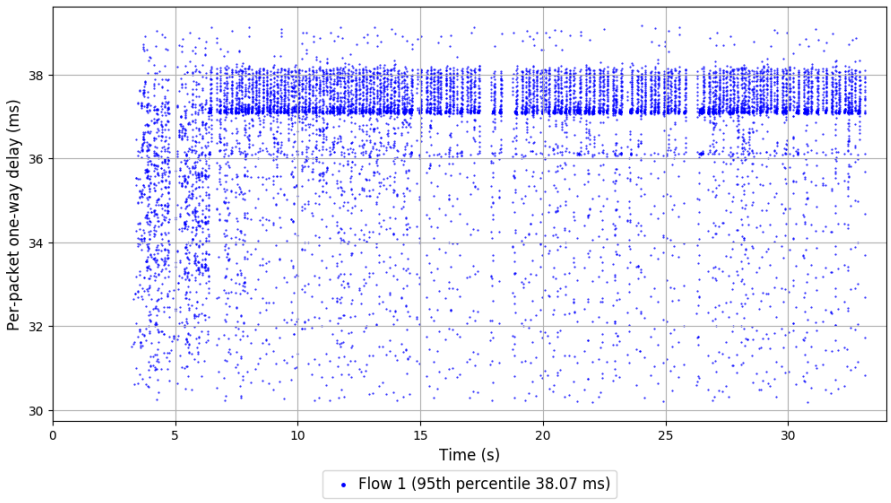
```
Run 1: Statistics of Verus

Start at: 2020-04-16 09:13:35
End at: 2020-04-16 09:14:05

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.72 Mbit/s (39.3% utilization)
95th percentile per-packet one-way delay: 38.069 ms
Loss rate: 98.22%
-- Flow 1:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 38.069 ms
Loss rate: 98.22%
```

Run 1: Report of Verus — Data Link



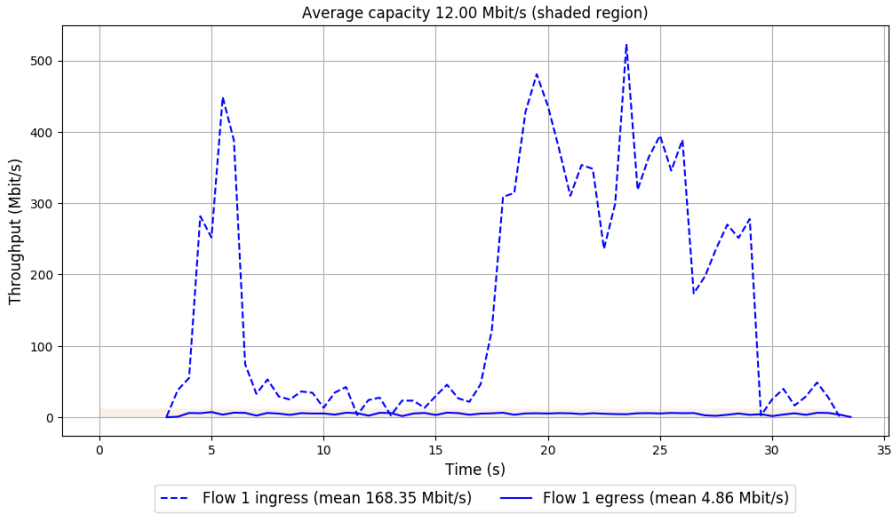


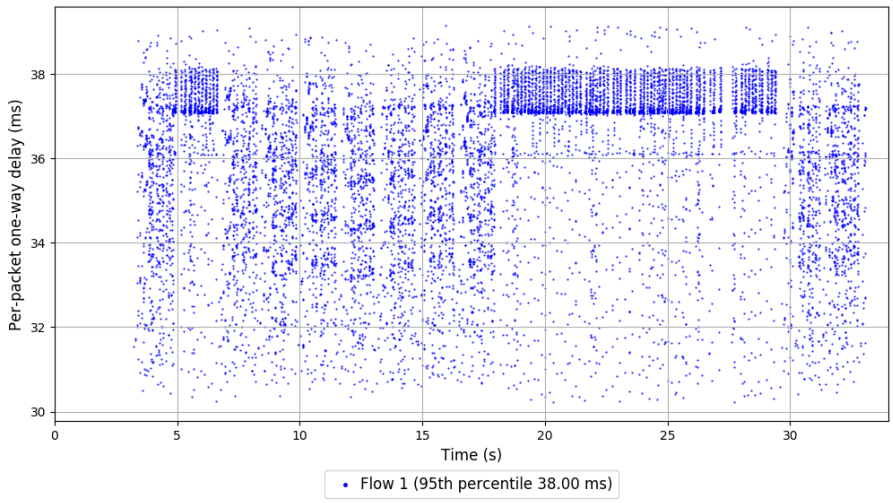
```
Run 2: Statistics of Verus

Start at: 2020-04-16 09:27:44
End at: 2020-04-16 09:28:14

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 4.86 Mbit/s (40.5% utilization)
95th percentile per-packet one-way delay: 38.002 ms
Loss rate: 97.12%
-- Flow 1:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 38.002 ms
Loss rate: 97.12%
```

Run 2: Report of Verus — Data Link



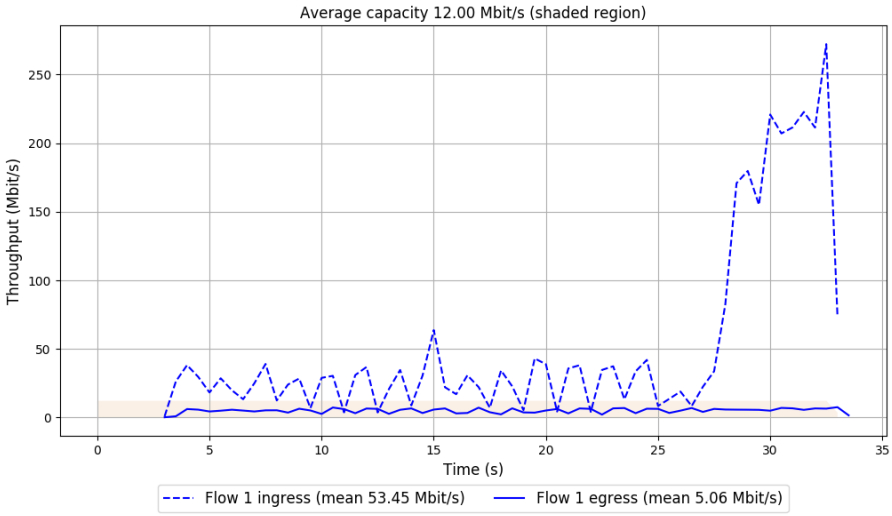


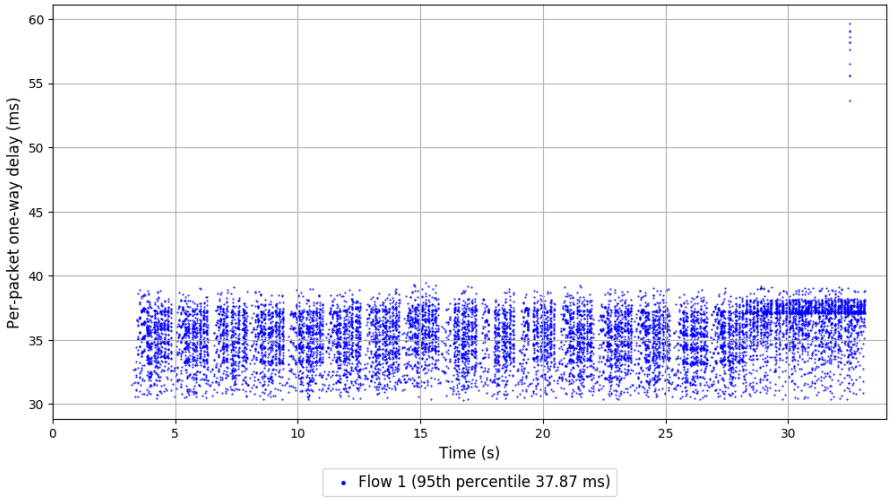
```
Run 3: Statistics of Verus

Start at: 2020-04-16 09:41:50
End at: 2020-04-16 09:42:20

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 5.06 Mbit/s (42.2% utilization)
95th percentile per-packet one-way delay: 37.870 ms
Loss rate: 90.52%
-- Flow 1:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 37.870 ms
Loss rate: 90.52%
```

Run 3: Report of Verus — Data Link



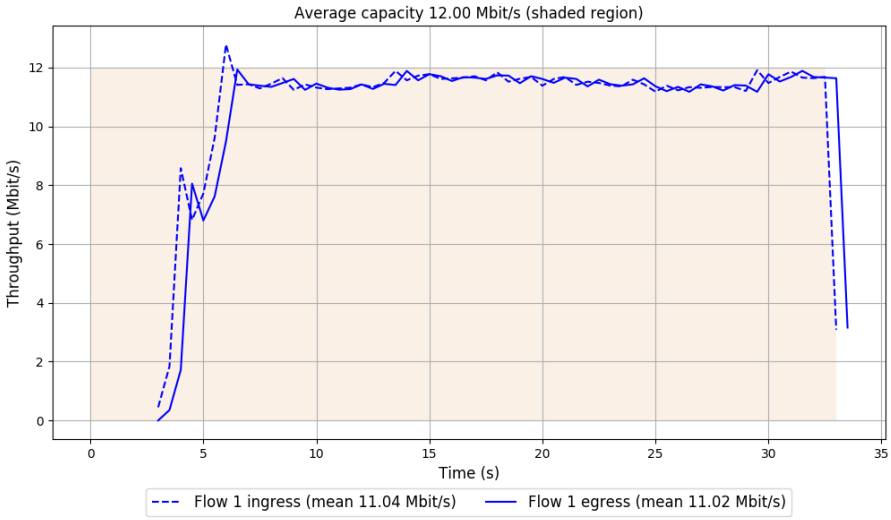


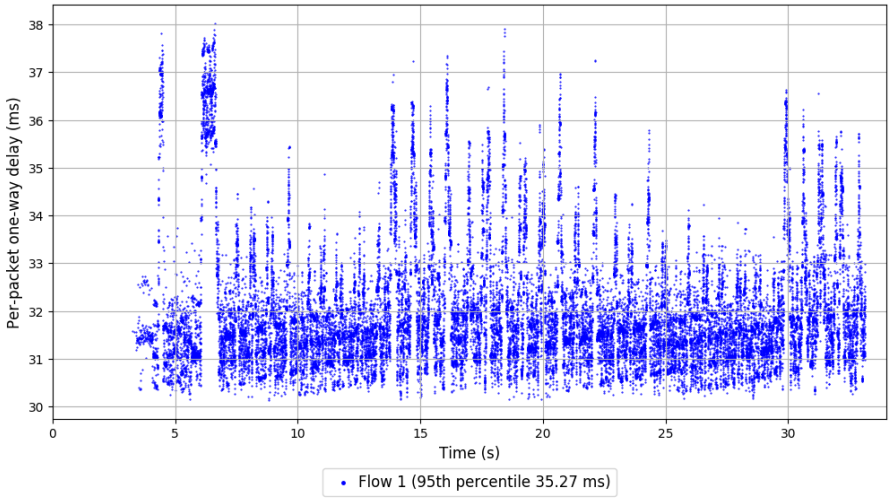
```
Run 1: Statistics of PCC-Vivace

Start at: 2020-04-16 09:06:32
End at: 2020-04-16 09:07:02

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.02 Mbit/s (91.9% utilization)
95th percentile per-packet one-way delay: 35.270 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 35.270 ms
Loss rate: 0.28%
```

Run 1: Report of PCC-Vivace — Data Link



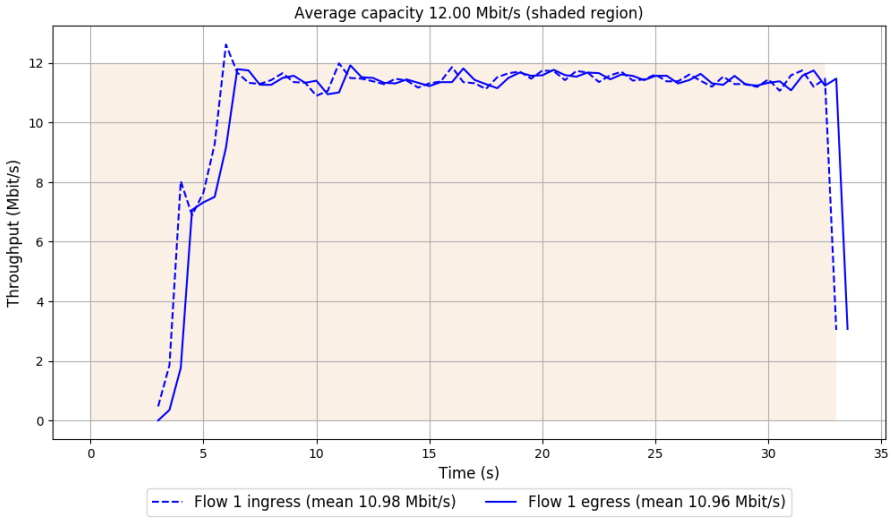


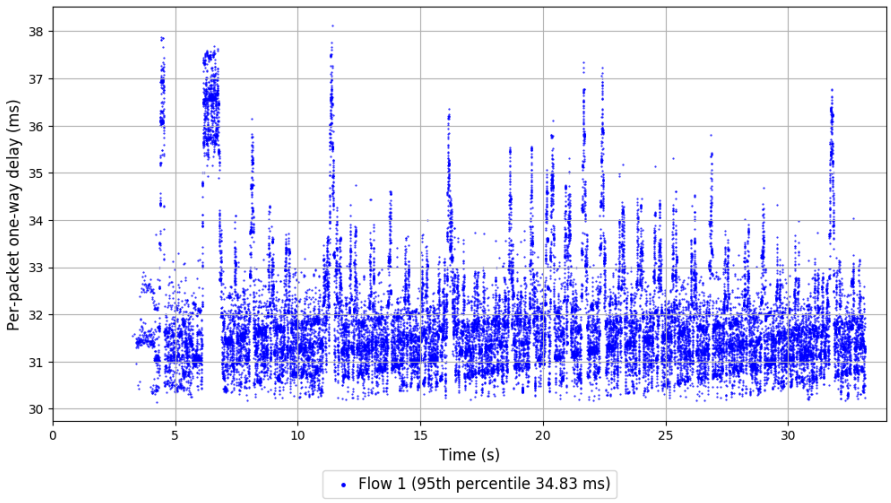
```
Run 2: Statistics of PCC-Vivace

Start at: 2020-04-16 09:20:40
End at: 2020-04-16 09:21:10

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 10.96 Mbit/s (91.3% utilization)
95th percentile per-packet one-way delay: 34.833 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 34.833 ms
Loss rate: 0.28%
```

Run 2: Report of PCC-Vivace — Data Link



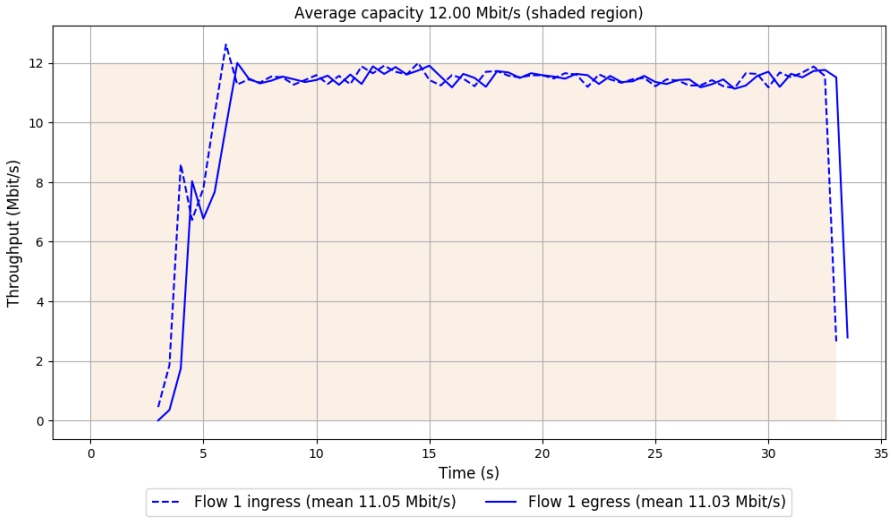


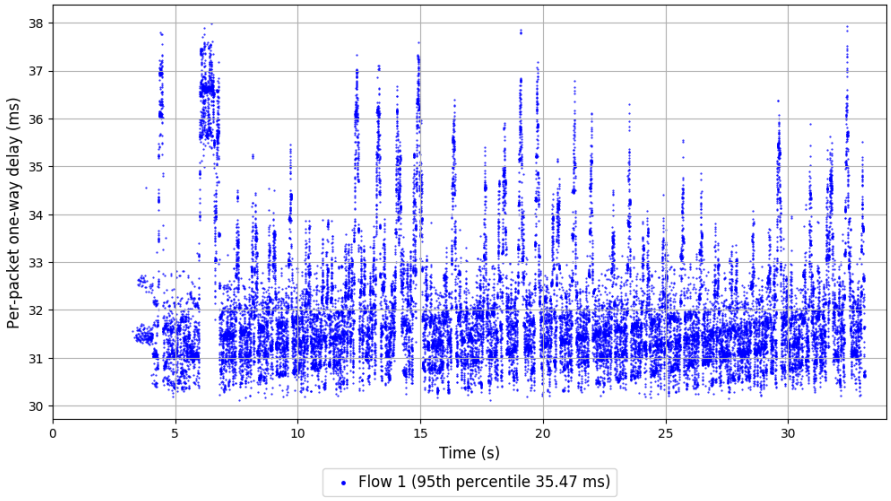
```
Run 3: Statistics of PCC-Vivace

Start at: 2020-04-16 09:34:48
End at: 2020-04-16 09:35:18

# Below is generated by plot.py at 2020-04-16 09:48:35
# Datalink statistics
-- Total of 1 flow:
Average capacity: 12.00 Mbit/s
Average throughput: 11.03 Mbit/s (91.9% utilization)
95th percentile per-packet one-way delay: 35.473 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 35.473 ms
Loss rate: 0.27%
```

Run 3: Report of PCC-Vivace — Data Link

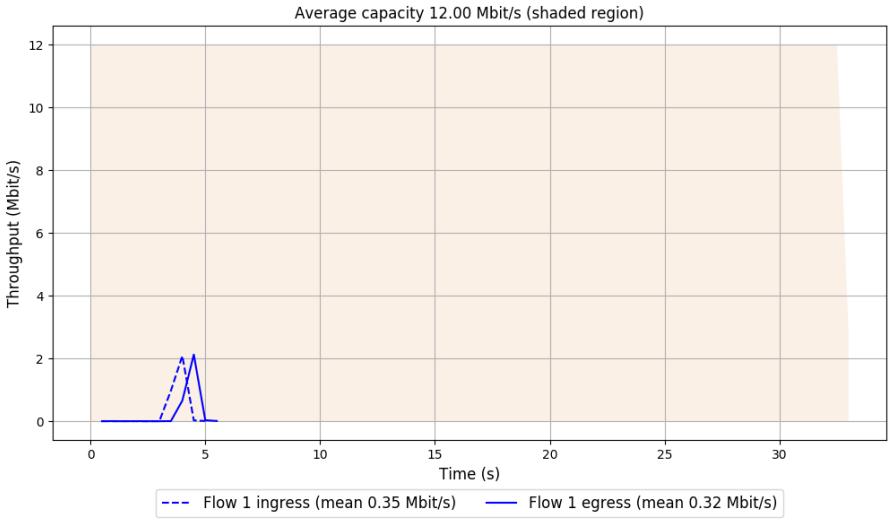


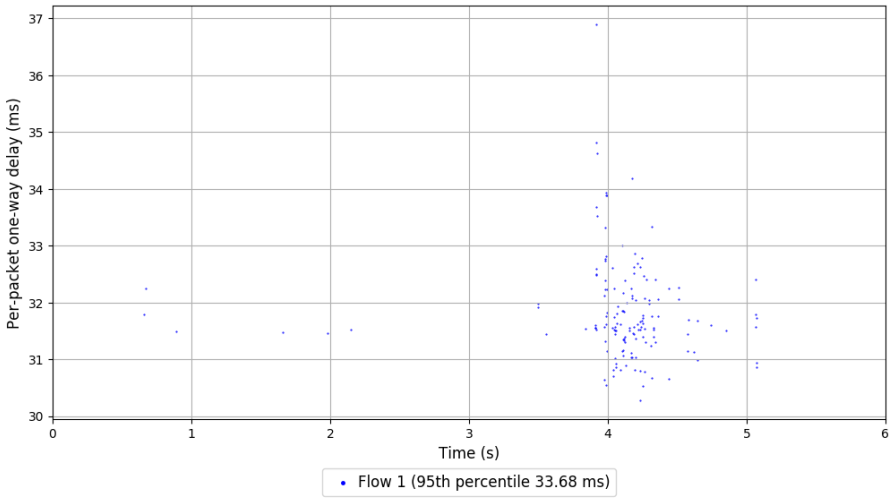


```
Run 1: Statistics of WebRTC media

Start at: 2020-04-16 09:13:00
End at: 2020-04-16 09:13:30
```

Run 1: Report of WebRTC media — Data Link

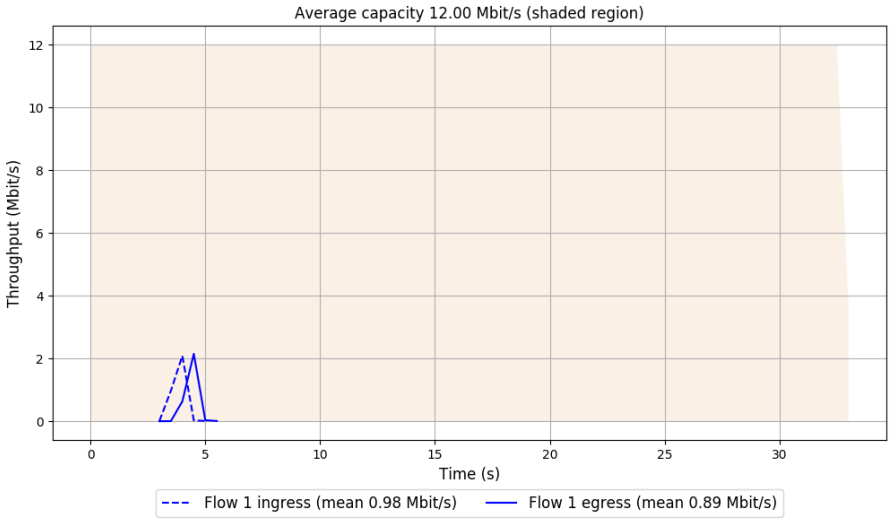


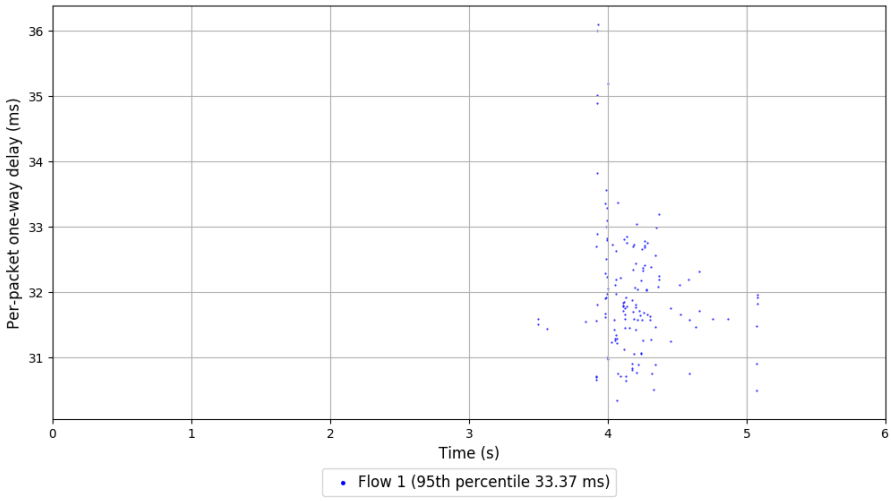


```
Run 2: Statistics of WebRTC media

Start at: 2020-04-16 09:27:09
End at: 2020-04-16 09:27:39
```

Run 2: Report of WebRTC media — Data Link





```
Run 3: Statistics of WebRTC media

Start at: 2020-04-16 09:41:15
End at: 2020-04-16 09:41:45
```

Run 3: Report of WebRTC media — Data Link