Pantheon Report

Generated at 2019-10-27 03:45:19 (UTC).

Tested in mahimahi: `mm-delay 20 mm-link 100mbps.trace 50mbps.trace --uplink-queue=droptail --uplink-queue-args=packets=300`

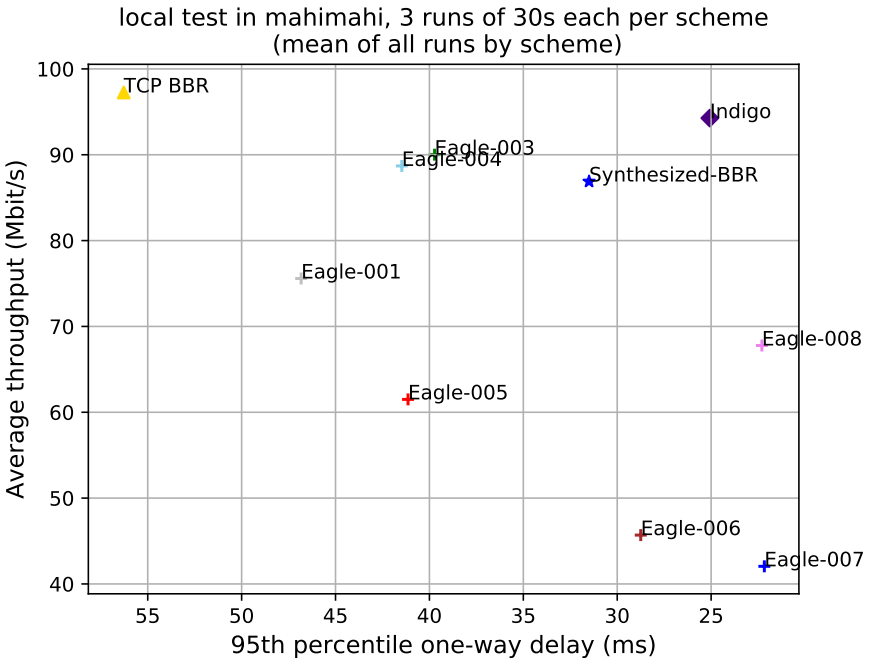
Repeated the test of 10 congestion control schemes 3 times.

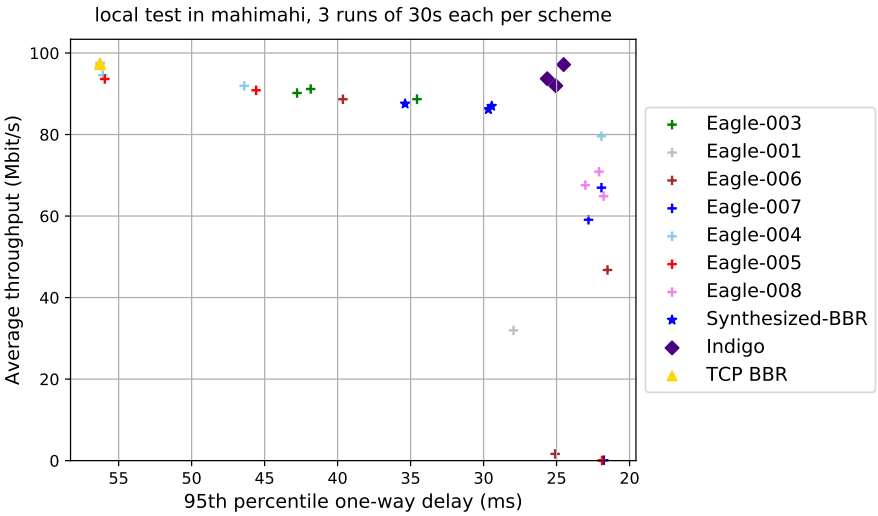
Each test lasted for 30 seconds running 1 flow.

```
System info:
Linux 4.15.0-65-generic
net.core.default_qdisc = fq
net.core.rmem_default = 212992
net.core.rmem_max = 212992
net.core.wmem_default = 212992
net.core.wmem_max = 212992
net.ipv4.tcp_rmem = 4096 87380 6291456
net.ipv4.tcp_wmem = 4096 16384 4194304
```

```
Git summary:
branch: master @ b54fc866b3140559c1fa1782d26fa636f7a43a8d
third_party/aurora @ f3e943d61015b39960854ba6391797e0c7984d74
third_party/aurora-model @ e292c316c23fb837255c4e142e40590d154bbe95
third_party/eagle-v1 @ c68d985e042be5c30704c0aee48c363861951a95
third_party/eagle-v2 @ c8a1737b3c84d7d49eada5b8785045d272a70120
third_party/eagle-v3 @ d5f1ab4416fa417052ddc65de5dbdbd20955d293
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/datagram_pb2.cpython-36.
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/helpers.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/mahimahi.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/project_root.cpython-36.
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/receiver.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/example-xentropy-random-switch.py
 M sender-receiver/sender-receiver/sender_receiver/envs/example-xentropy.py
 D sender-receiver/sender-receiver/sender_receiver/envs/model-xentropy/model-xentropy-2.pt
 D sender-receiver/sender-receiver/sender_receiver/envs/model-xentropy/model-xentropy-240ite
 M sender-receiver/sender-receiver/sender_receiver/envs/model-xentropy/model-xentropy.pt
 M sender-receiver/sender-receiver/sender_receiver/logs.txt
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
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/synthesizedBBR @ d5f1ab4416fa417052ddc65de5dbdbd20955d293
 M sender-receiver/sender-receiver/sender_receiver/__pycache__/__init__.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/__init__.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/datagram_pb2.cpython-36
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/helpers.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/mahimahi.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/project_root.cpython-36
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/receiver.cpython-36.pyc
 M sender-receiver/sender-receiver/sender_receiver/envs/__pycache__/sender_receiver_env.cpyt
 M sender-receiver/sender-receiver/sender_receiver/envs/example-xentropy.py
 M sender-receiver/sender-receiver/sender_receiver/logs.txt
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)
TCP BBR
Indigo
Eagle-003
Eagle-004
Synthesized-BBR
Eagle-001
Eagle-008
Eagle-005
Eagle-006
Eagle-007


local test in mahimahi, 3 runs of 30s each per scheme
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
Eagle-003
Eagle-001
Eagle-006
Eagle-007
Eagle-004
Eagle-005
Eagle-008
Synthesized-BBR
Indigo
TCP BBR

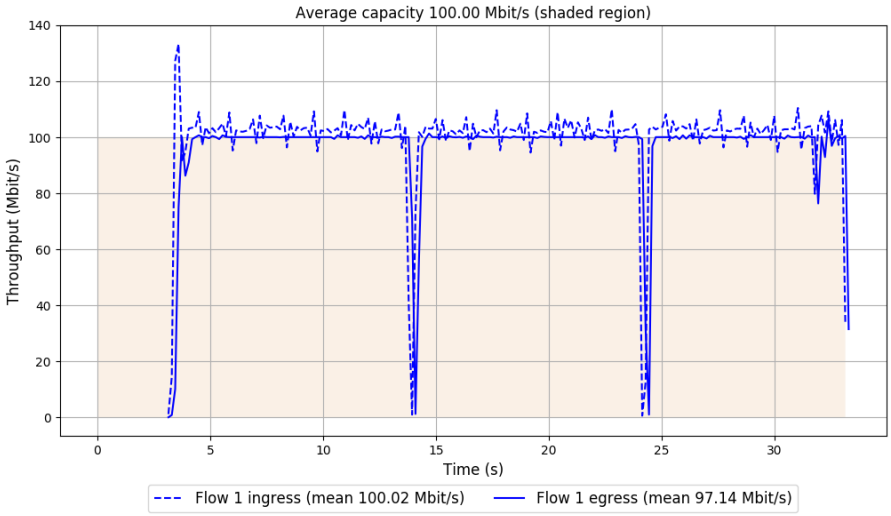
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	97.26	56.28	2.74
Eagle-001	3	75.58	46.83	9.47
Eagle-003	3	90.01	39.73	0.38
Eagle-004	3	88.69	41.47	1.52
Eagle-005	3	61.50	41.14	0.95
Eagle-006	3	45.69	28.75	0.08
Eagle-007	3	42.06	22.17	0.29
Eagle-008	3	67.78	22.30	0.22
Indigo	3	94.27	25.07	0.09
Synthesized-BBR	3	86.88	31.50	0.14

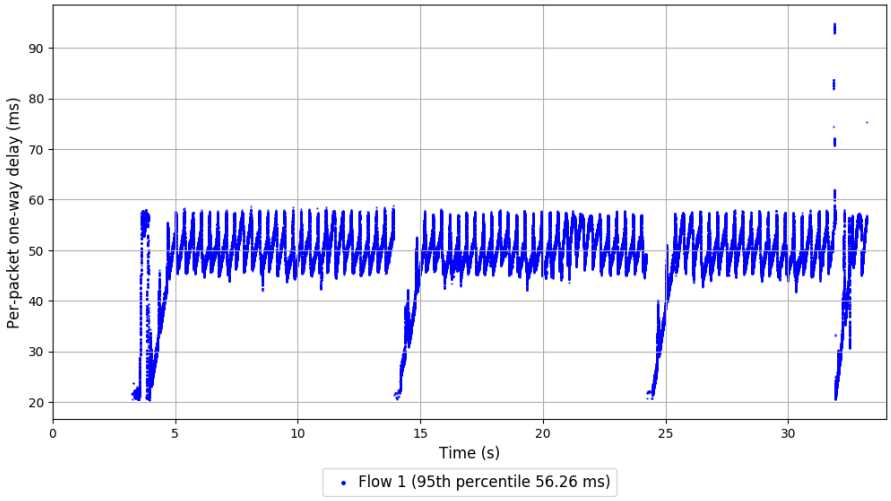
```
Run 1: Statistics of TCP BBR

Start at: 2019-10-27 03:16:31
End at: 2019-10-27 03:17:01

# Below is generated by plot.py at 2019-10-27 03:40:32
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.14 Mbit/s (97.1% utilization)
95th percentile per-packet one-way delay: 56.255 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 56.255 ms
Loss rate: 2.89%
```

Run 1: Report of TCP BBR — Data Link



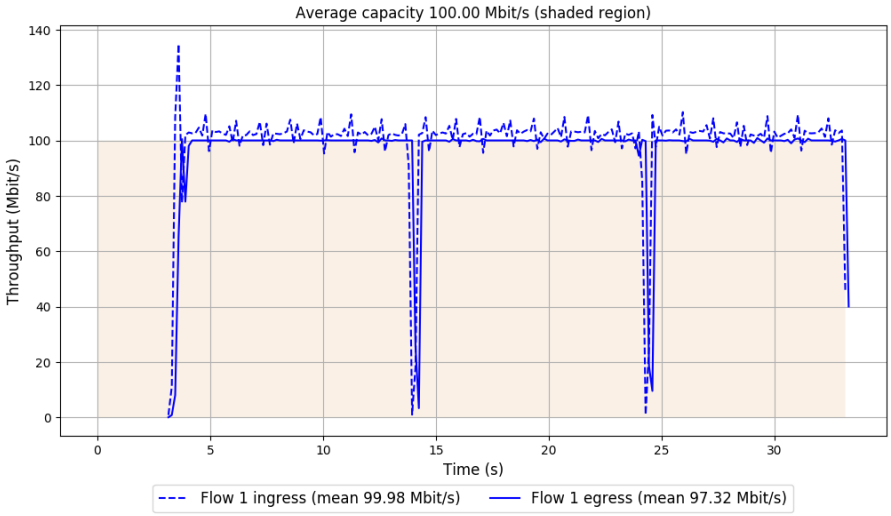


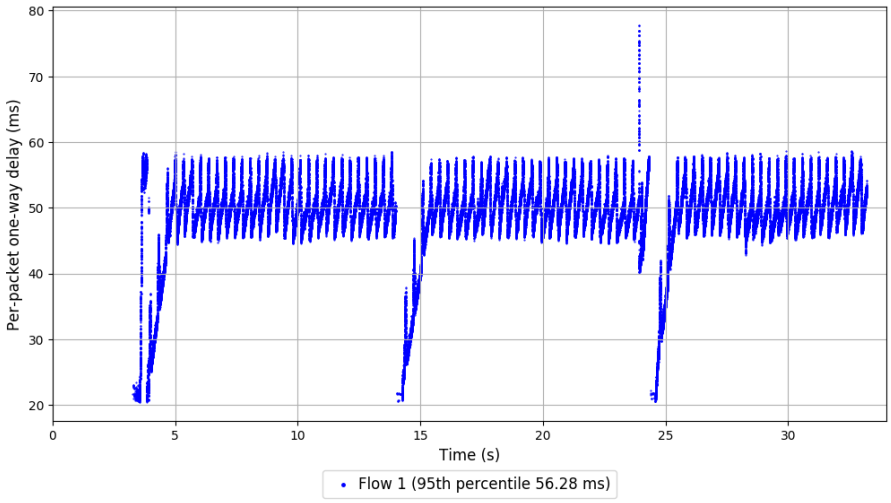
```
Run 2: Statistics of TCP BBR

Start at: 2019-10-27 03:22:59
End at: 2019-10-27 03:23:29

# Below is generated by plot.py at 2019-10-27 03:40:32
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.32 Mbit/s (97.3% utilization)
95th percentile per-packet one-way delay: 56.277 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 56.277 ms
Loss rate: 2.74%
```

Run 2: Report of TCP BBR — Data Link



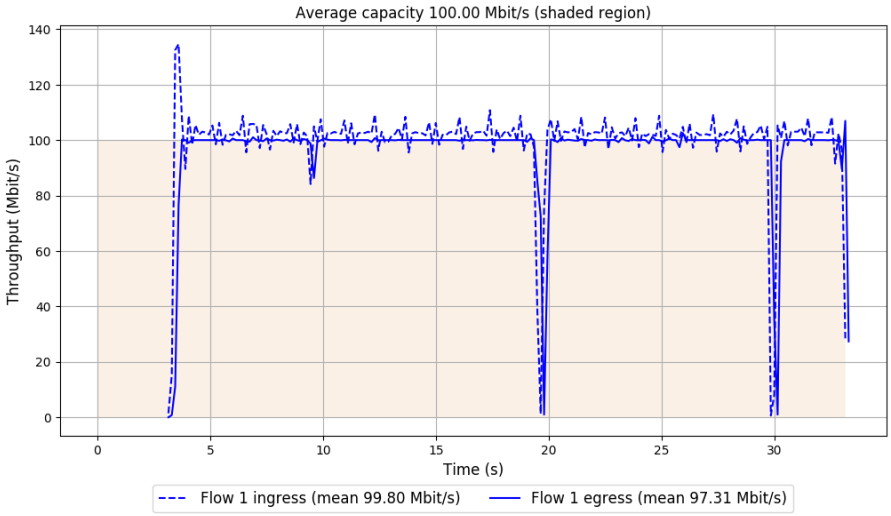


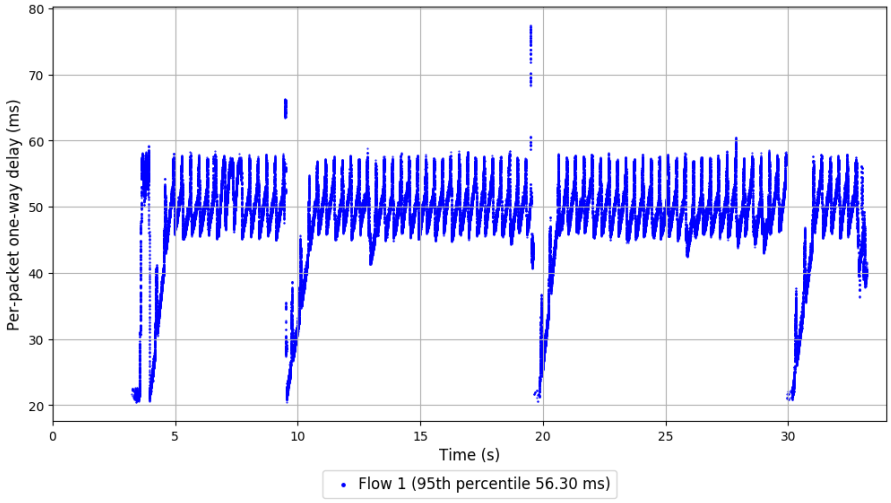
```
Run 3: Statistics of TCP BBR

Start at: 2019-10-27 03:29:18
End at: 2019-10-27 03:29:48

# Below is generated by plot.py at 2019-10-27 03:40:32
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.31 Mbit/s (97.3% utilization)
95th percentile per-packet one-way delay: 56.301 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 97.31 Mbit/s
95th percentile per-packet one-way delay: 56.301 ms
Loss rate: 2.60%
```

Run 3: Report of TCP BBR — Data Link



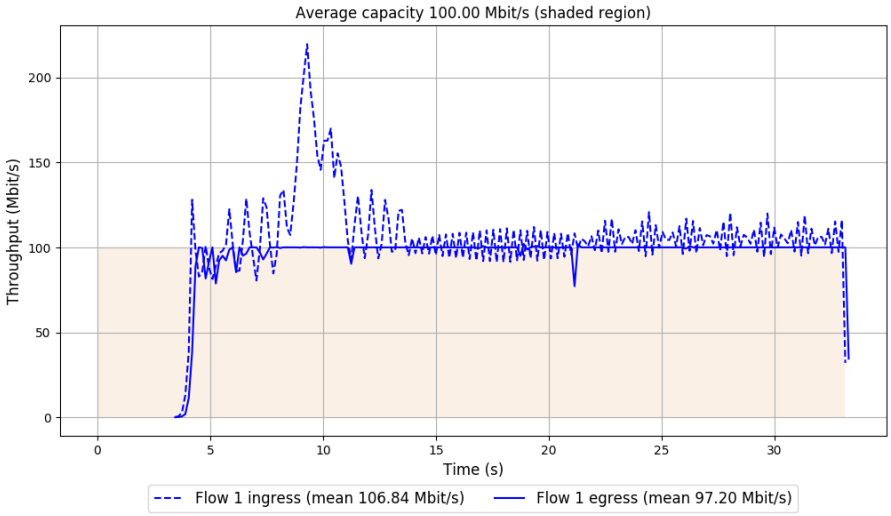


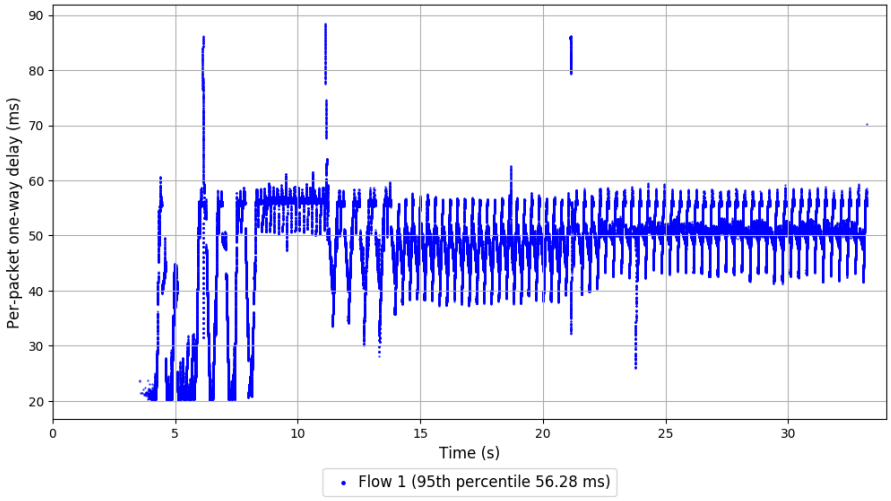
```
Run 1: Statistics of Eagle-001

Start at: 2019-10-27 03:11:26
End at: 2019-10-27 03:11:56

# Below is generated by plot.py at 2019-10-27 03:40:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.20 Mbit/s (97.2% utilization)
95th percentile per-packet one-way delay: 56.283 ms
Loss rate: 9.05%
-- Flow 1:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 56.283 ms
Loss rate: 9.05%
```

Run 1: Report of Eagle-001 — Data Link



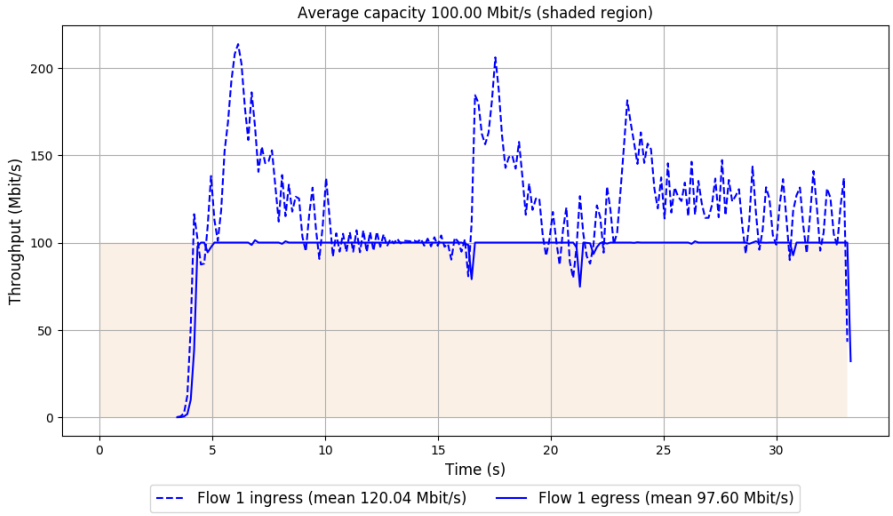


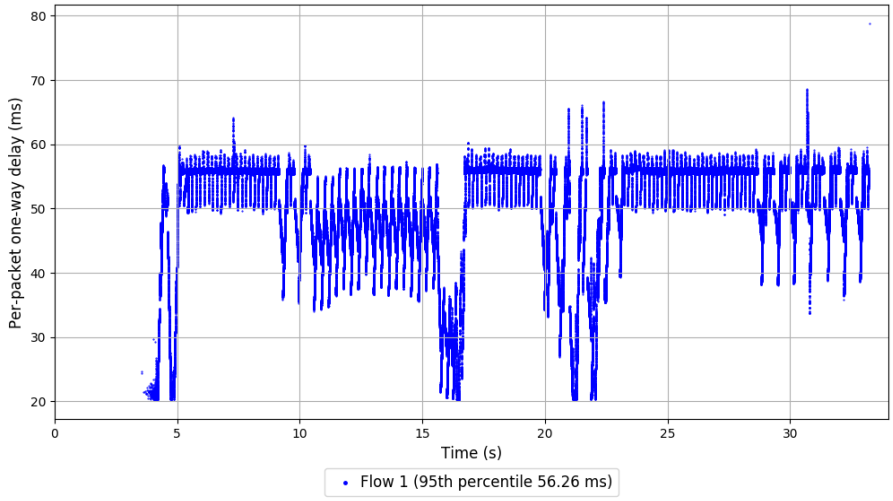
```
Run 2: Statistics of Eagle-001

Start at: 2019-10-27 03:17:49
End at: 2019-10-27 03:18:19

# Below is generated by plot.py at 2019-10-27 03:41:09
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.60 Mbit/s (97.6% utilization)
95th percentile per-packet one-way delay: 56.259 ms
Loss rate: 18.72%
-- Flow 1:
Average throughput: 97.60 Mbit/s
95th percentile per-packet one-way delay: 56.259 ms
Loss rate: 18.72%
```

Run 2: Report of Eagle-001 — Data Link



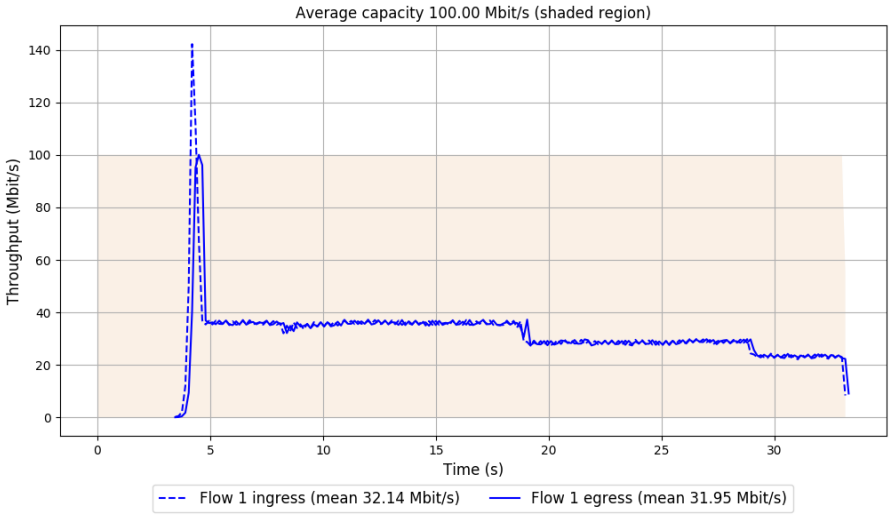


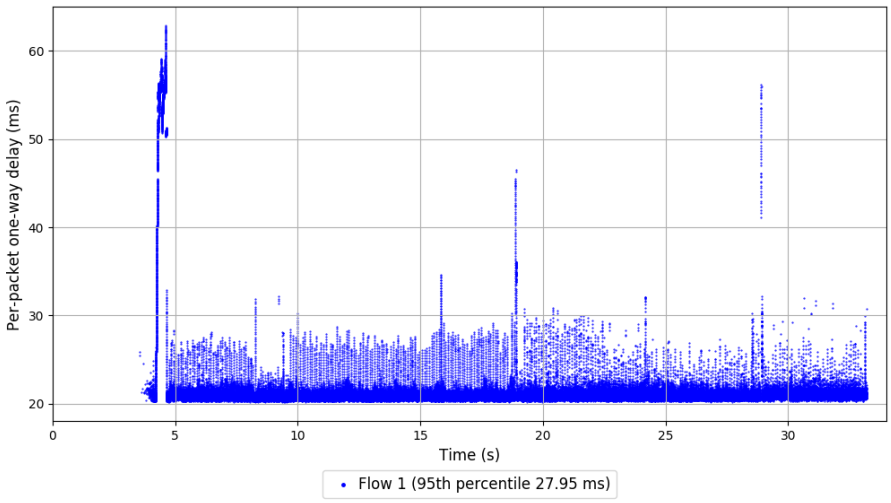
```
Run 3: Statistics of Eagle-001

Start at: 2019-10-27 03:24:17
End at: 2019-10-27 03:24:47

# Below is generated by plot.py at 2019-10-27 03:41:09
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 31.95 Mbit/s (32.0% utilization)
95th percentile per-packet one-way delay: 27.947 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 27.947 ms
Loss rate: 0.64%
```

Run 3: Report of Eagle-001 — Data Link



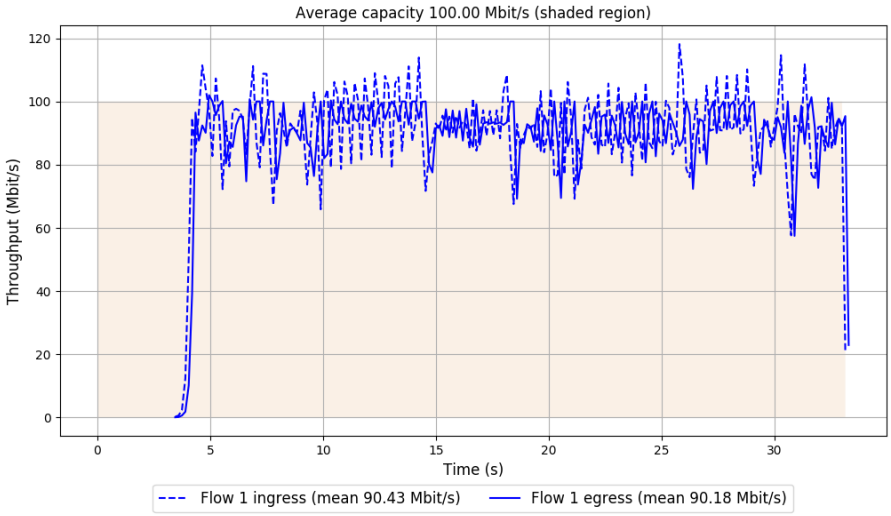


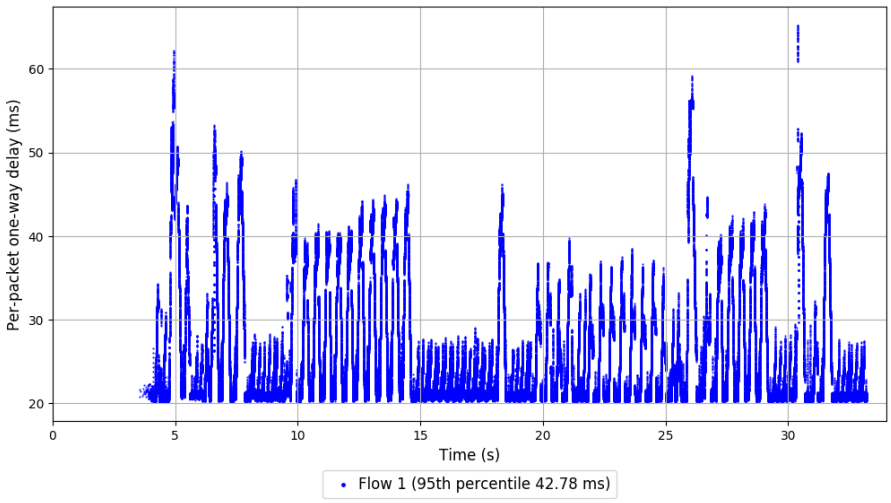
```
Run 1: Statistics of Eagle-003

Start at: 2019-10-27 03:12:06
End at: 2019-10-27 03:12:36

# Below is generated by plot.py at 2019-10-27 03:41:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 90.18 Mbit/s (90.2% utilization)
95th percentile per-packet one-way delay: 42.777 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 90.18 Mbit/s
95th percentile per-packet one-way delay: 42.777 ms
Loss rate: 0.36%
```

Run 1: Report of Eagle-003 — Data Link



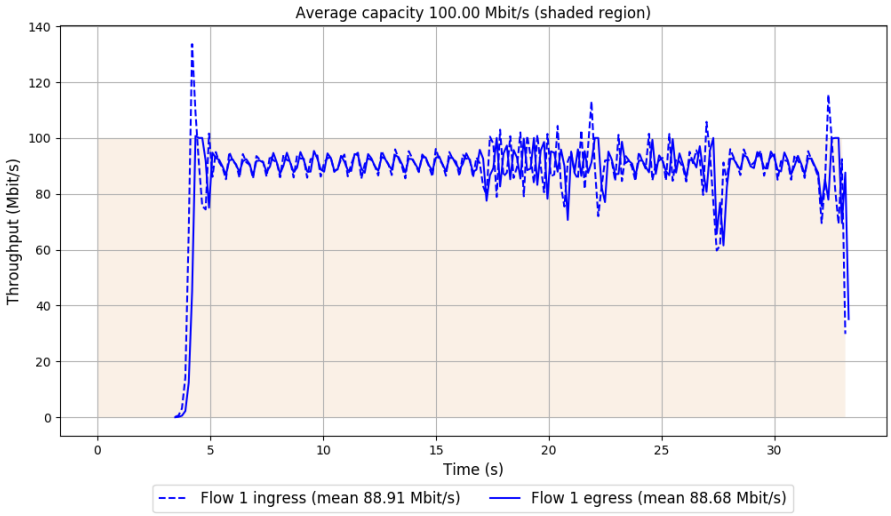


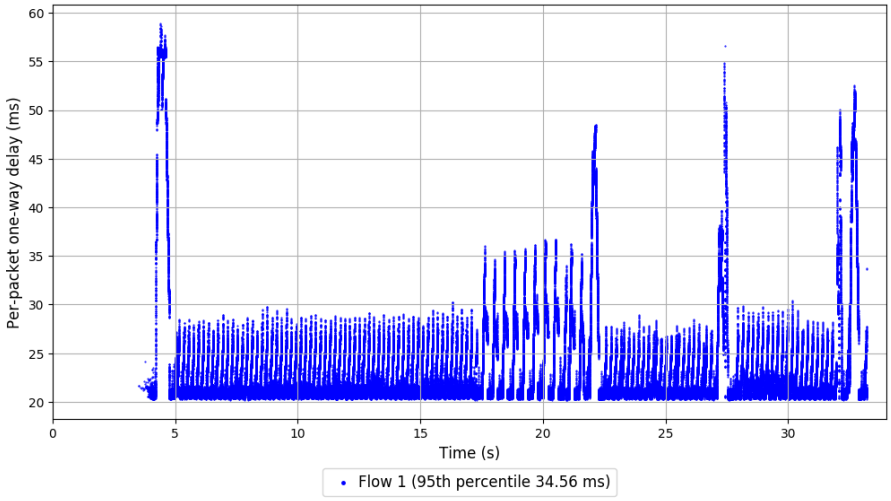
```
Run 2: Statistics of Eagle-003

Start at: 2019-10-27 03:18:29
End at: 2019-10-27 03:18:59

# Below is generated by plot.py at 2019-10-27 03:41:36
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 88.68 Mbit/s (88.7% utilization)
95th percentile per-packet one-way delay: 34.560 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 88.68 Mbit/s
95th percentile per-packet one-way delay: 34.560 ms
Loss rate: 0.29%
```

Run 2: Report of Eagle-003 — Data Link



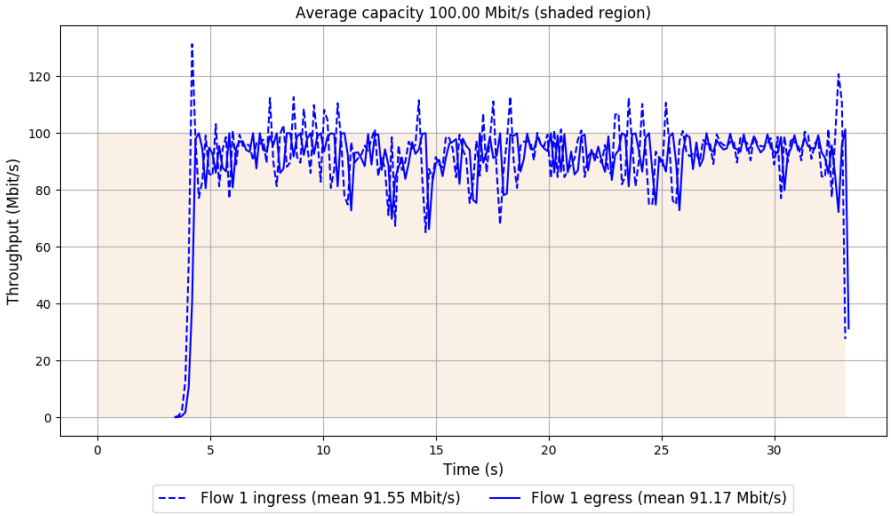


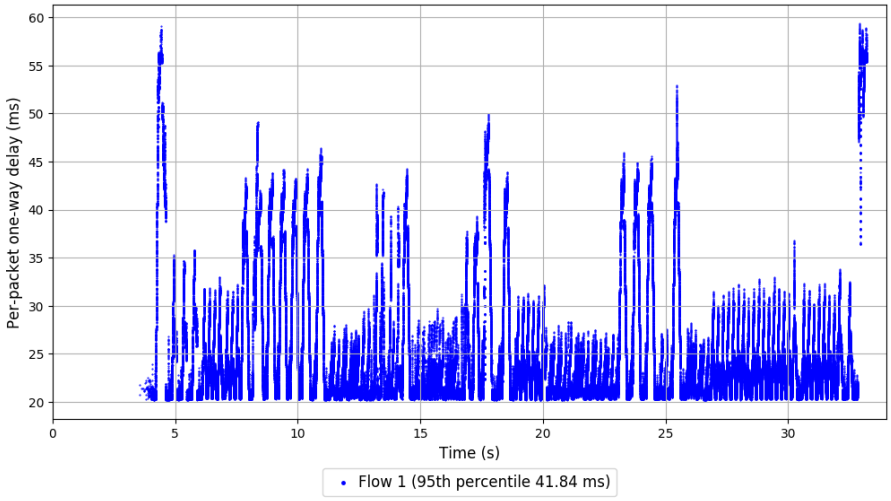
```
Run 3: Statistics of Eagle-003

Start at: 2019-10-27 03:24:53
End at: 2019-10-27 03:25:23

# Below is generated by plot.py at 2019-10-27 03:41:36
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 91.17 Mbit/s (91.2% utilization)
95th percentile per-packet one-way delay: 41.843 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 91.17 Mbit/s
95th percentile per-packet one-way delay: 41.843 ms
Loss rate: 0.50%
```

Run 3: Report of Eagle-003 — Data Link



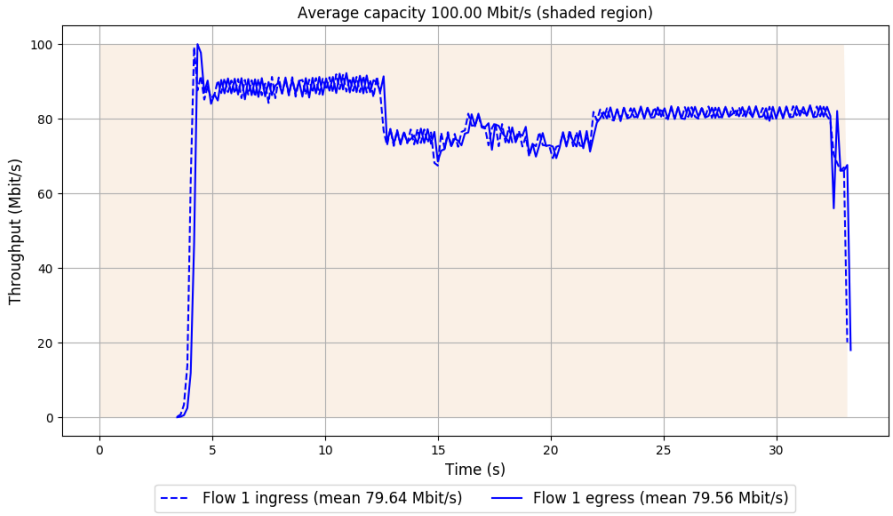


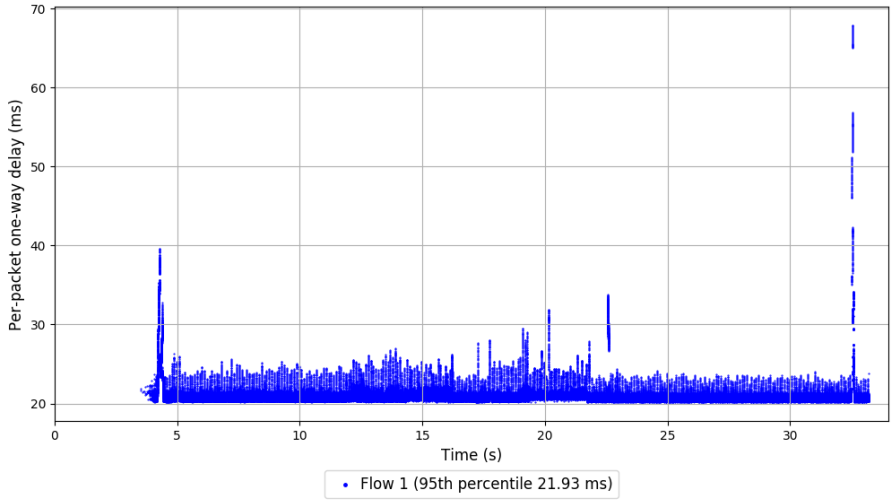
```
Run 1: Statistics of Eagle-004

Start at: 2019-10-27 03:12:45
End at: 2019-10-27 03:13:15

# Below is generated by plot.py at 2019-10-27 03:42:01
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 79.56 Mbit/s (79.6% utilization)
95th percentile per-packet one-way delay: 21.927 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 79.56 Mbit/s
95th percentile per-packet one-way delay: 21.927 ms
Loss rate: 0.17%
```

Run 1: Report of Eagle-004 — Data Link



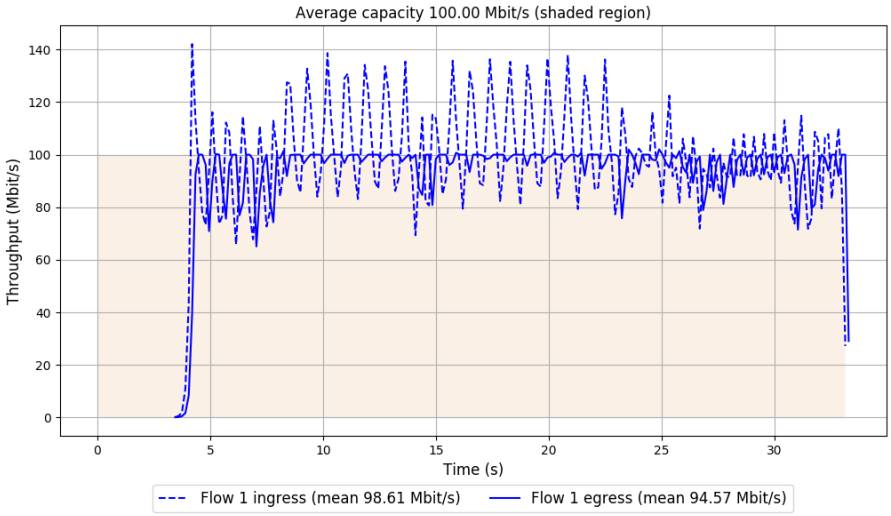


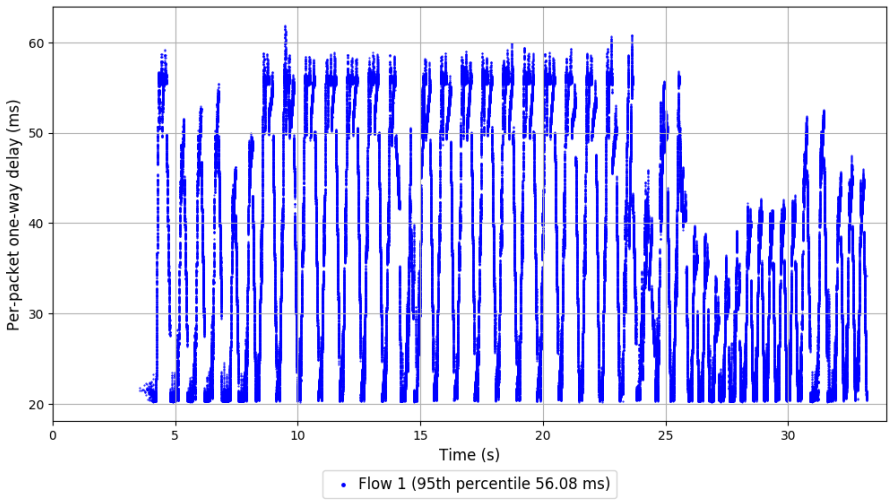
```
Run 2: Statistics of Eagle-004

Start at: 2019-10-27 03:19:08
End at: 2019-10-27 03:19:38

# Below is generated by plot.py at 2019-10-27 03:42:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 94.57 Mbit/s (94.6% utilization)
95th percentile per-packet one-way delay: 56.084 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 56.084 ms
Loss rate: 4.12%
```

Run 2: Report of Eagle-004 — Data Link



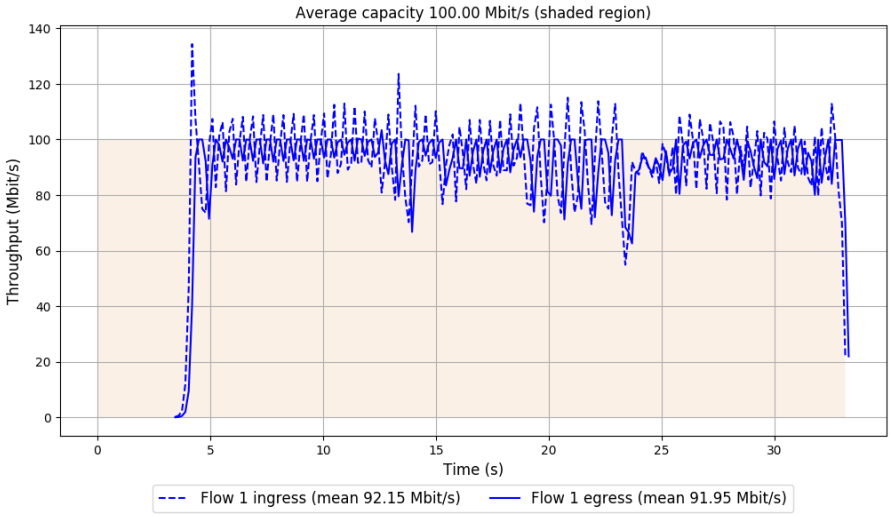


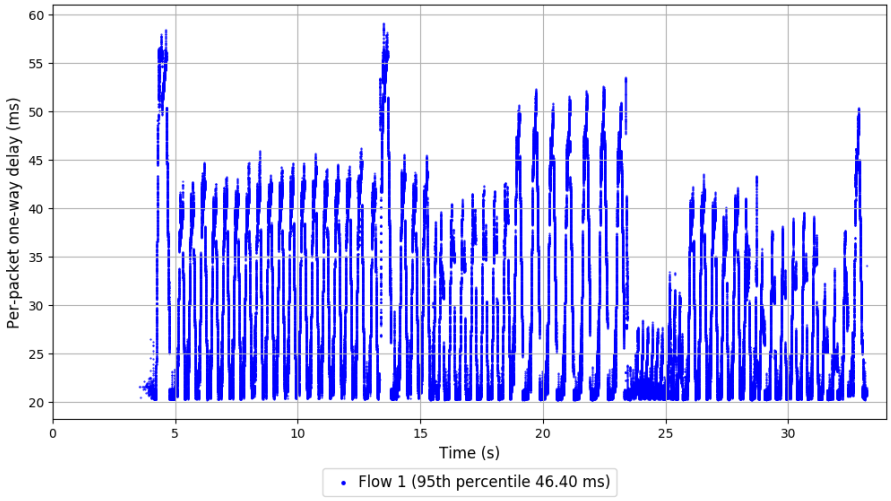
```
Run 3: Statistics of Eagle-004

Start at: 2019-10-27 03:25:32
End at: 2019-10-27 03:26:02

# Below is generated by plot.py at 2019-10-27 03:42:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 91.95 Mbit/s (92.0% utilization)
95th percentile per-packet one-way delay: 46.398 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 46.398 ms
Loss rate: 0.27%
```

Run 3: Report of Eagle-004 — Data Link



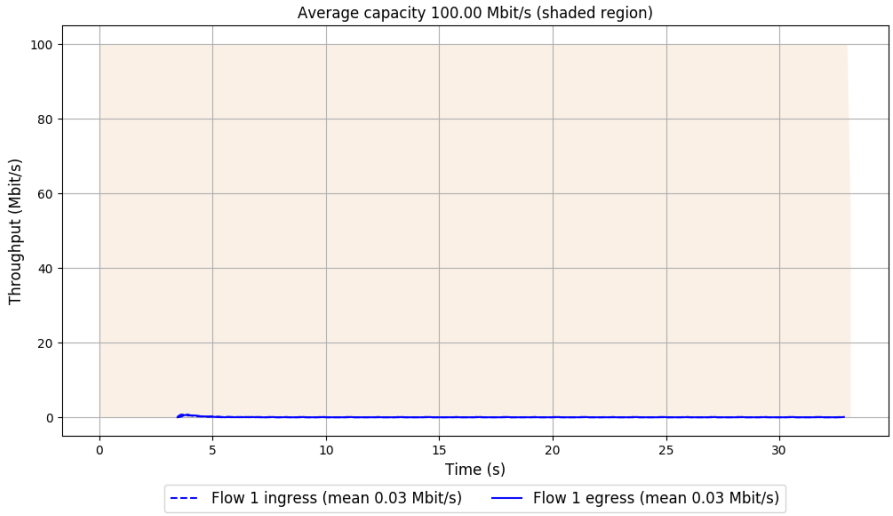


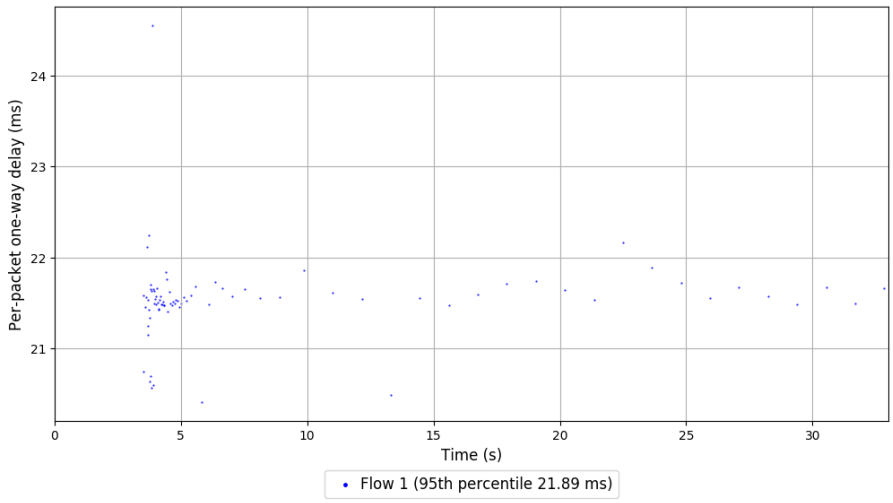
```
Run 1: Statistics of Eagle-005

Start at: 2019-10-27 03:13:23
End at: 2019-10-27 03:13:53

# Below is generated by plot.py at 2019-10-27 03:42:27
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 0.03 Mbit/s (0.0% utilization)
95th percentile per-packet one-way delay: 21.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 21.888 ms
Loss rate: 0.00%
```

Run 1: Report of Eagle-005 — Data Link



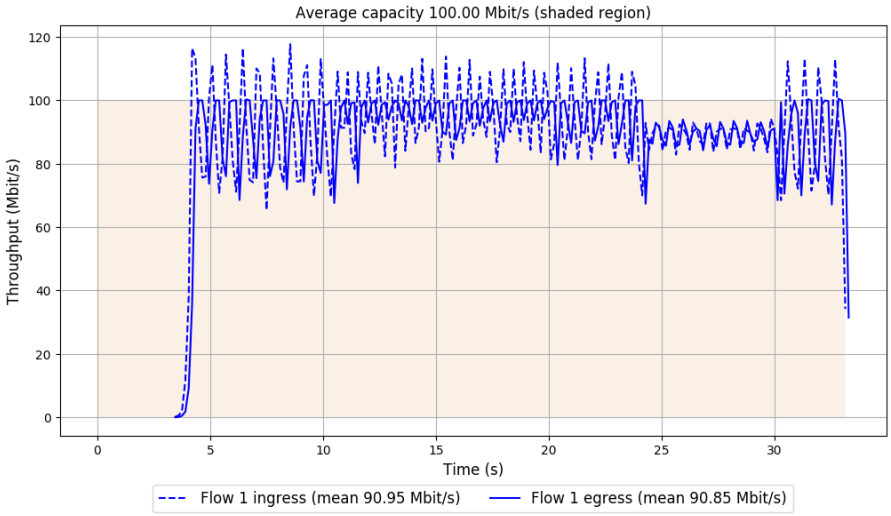


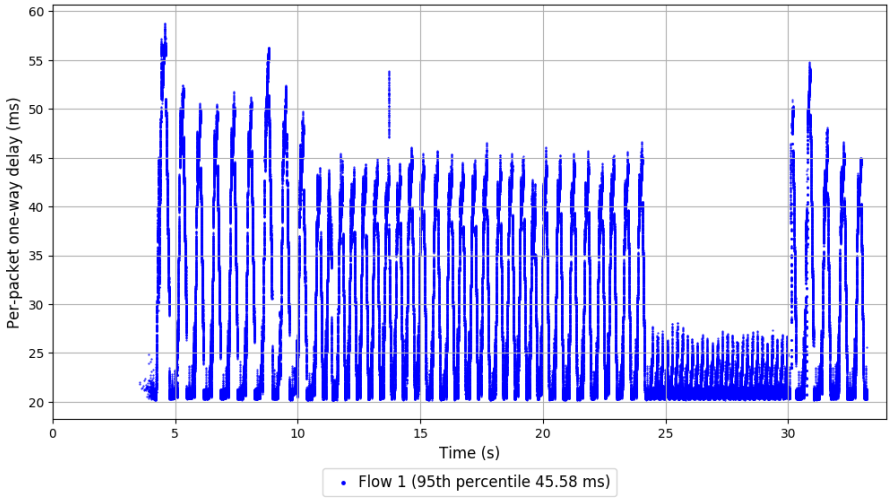
```
Run 2: Statistics of Eagle-005

Start at: 2019-10-27 03:19:47
End at: 2019-10-27 03:20:17

# Below is generated by plot.py at 2019-10-27 03:42:40
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 90.85 Mbit/s (90.9% utilization)
95th percentile per-packet one-way delay: 45.581 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 90.85 Mbit/s
95th percentile per-packet one-way delay: 45.581 ms
Loss rate: 0.17%
```

Run 2: Report of Eagle-005 — Data Link



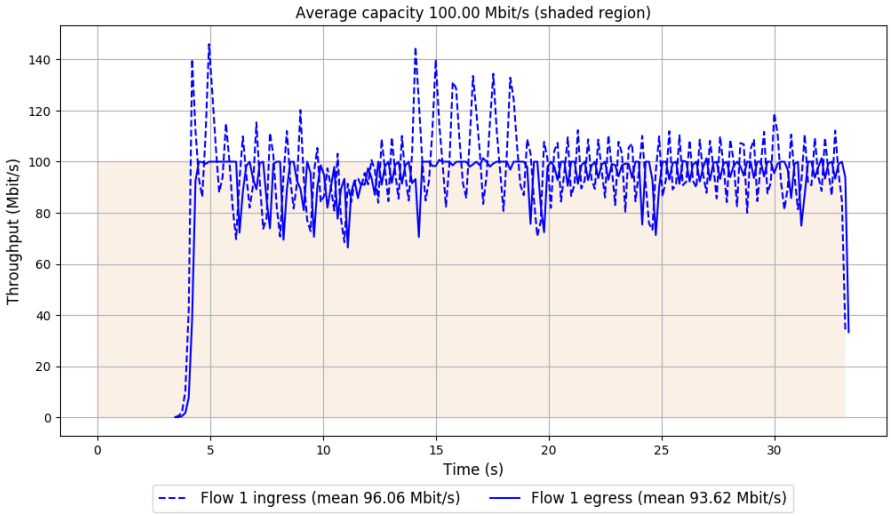


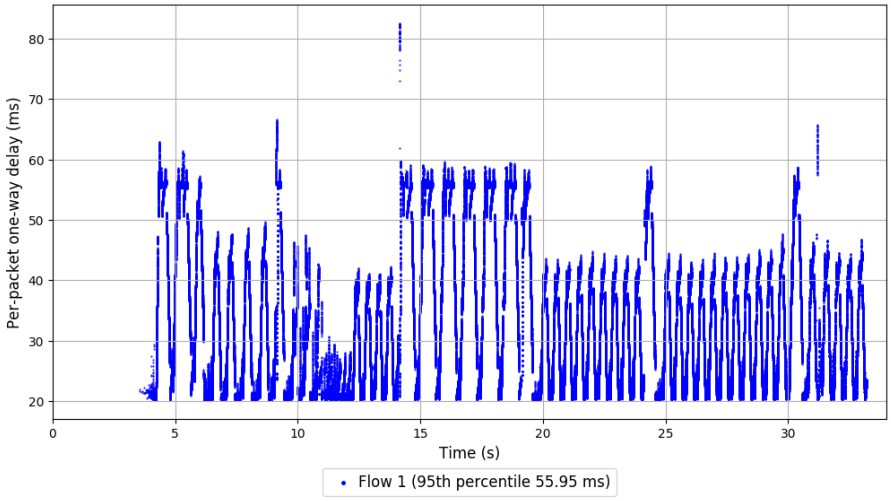
```
Run 3: Statistics of Eagle-005

Start at: 2019-10-27 03:26:11
End at: 2019-10-27 03:26:42

# Below is generated by plot.py at 2019-10-27 03:42:55
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 93.62 Mbit/s (93.6% utilization)
95th percentile per-packet one-way delay: 55.946 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 55.946 ms
Loss rate: 2.69%
```

Run 3: Report of Eagle-005 — Data Link



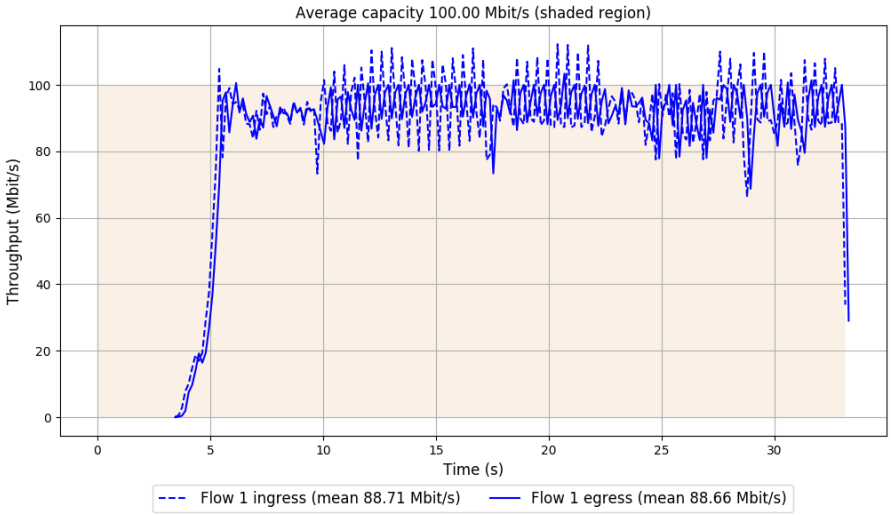


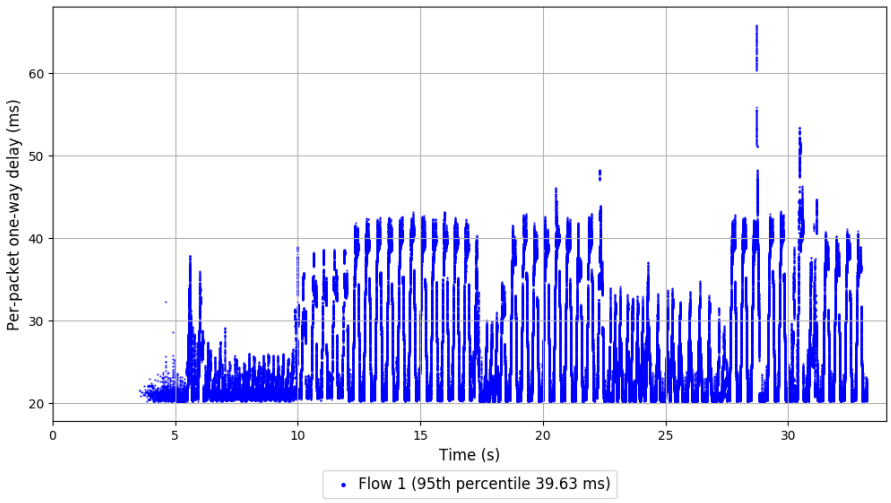
```
Run 1: Statistics of Eagle-006

Start at: 2019-10-27 03:13:58
End at: 2019-10-27 03:14:28

# Below is generated by plot.py at 2019-10-27 03:43:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 88.66 Mbit/s (88.7% utilization)
95th percentile per-packet one-way delay: 39.635 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 88.66 Mbit/s
95th percentile per-packet one-way delay: 39.635 ms
Loss rate: 0.14%
```

Run 1: Report of Eagle-006 — Data Link



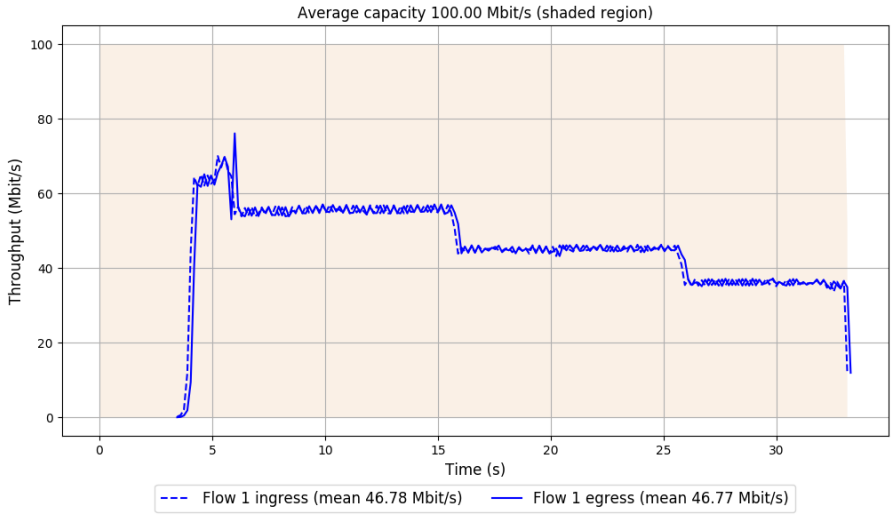


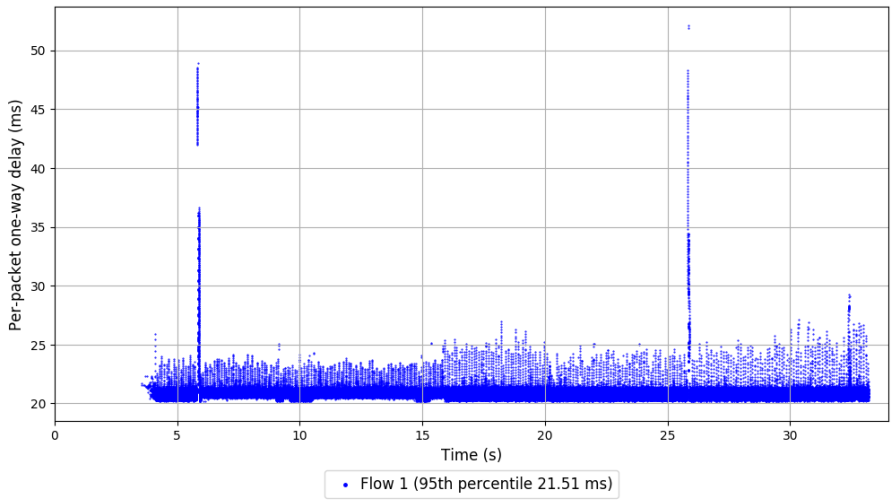
```
Run 2: Statistics of Eagle-006

Start at: 2019-10-27 03:20:27
End at: 2019-10-27 03:20:57

# Below is generated by plot.py at 2019-10-27 03:43:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 46.77 Mbit/s (46.8% utilization)
95th percentile per-packet one-way delay: 21.511 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 46.77 Mbit/s
95th percentile per-packet one-way delay: 21.511 ms
Loss rate: 0.10%
```

Run 2: Report of Eagle-006 — Data Link



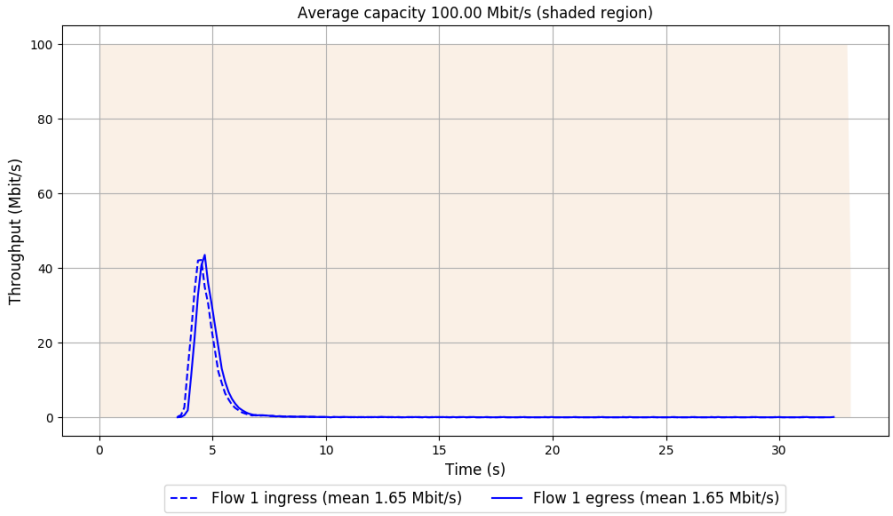


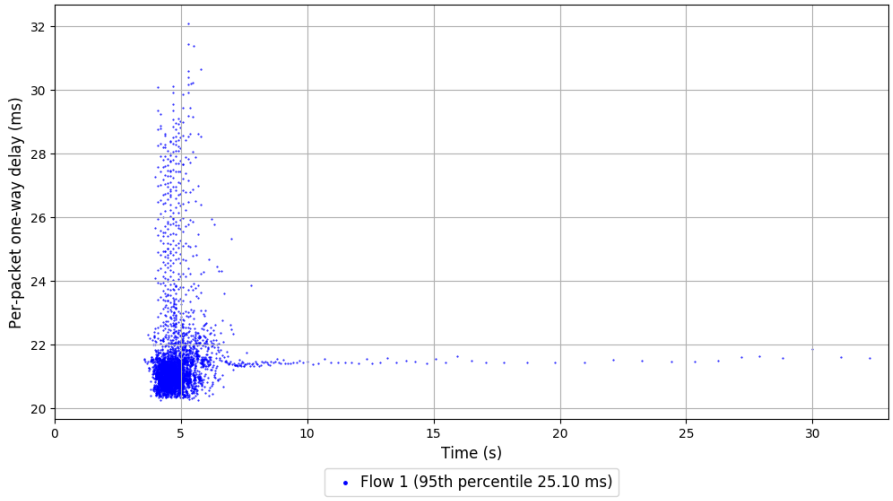
```
Run 3: Statistics of Eagle-006

Start at: 2019-10-27 03:26:51
End at: 2019-10-27 03:27:21

# Below is generated by plot.py at 2019-10-27 03:43:24
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 1.65 Mbit/s (1.6% utilization)
95th percentile per-packet one-way delay: 25.097 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 25.097 ms
Loss rate: 0.00%
```

Run 3: Report of Eagle-006 — Data Link



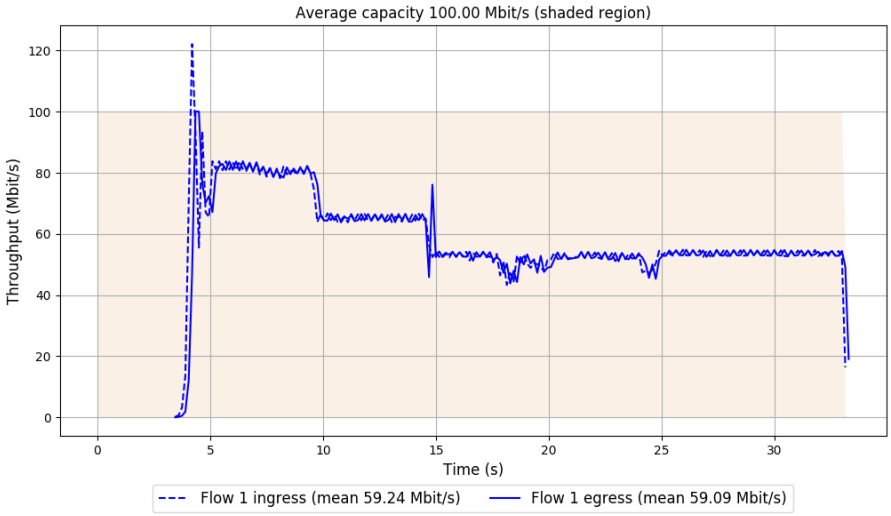


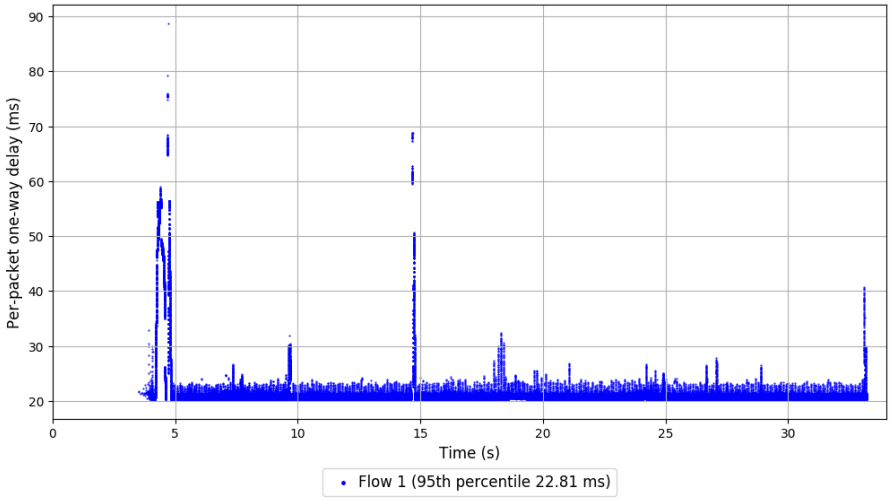
```
Run 1: Statistics of Eagle-007

Start at: 2019-10-27 03:14:37
End at: 2019-10-27 03:15:07

# Below is generated by plot.py at 2019-10-27 03:43:31
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 59.09 Mbit/s (59.1% utilization)
95th percentile per-packet one-way delay: 22.811 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 22.811 ms
Loss rate: 0.32%
```

Run 1: Report of Eagle-007 — Data Link



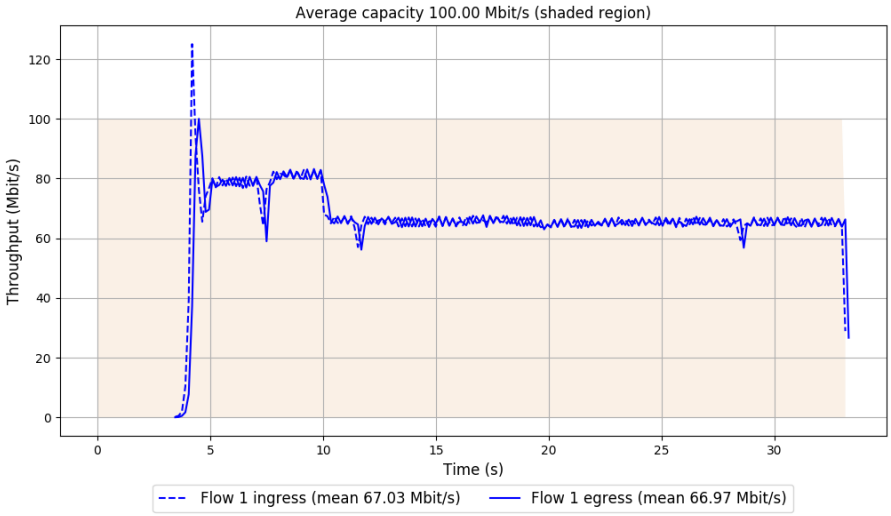


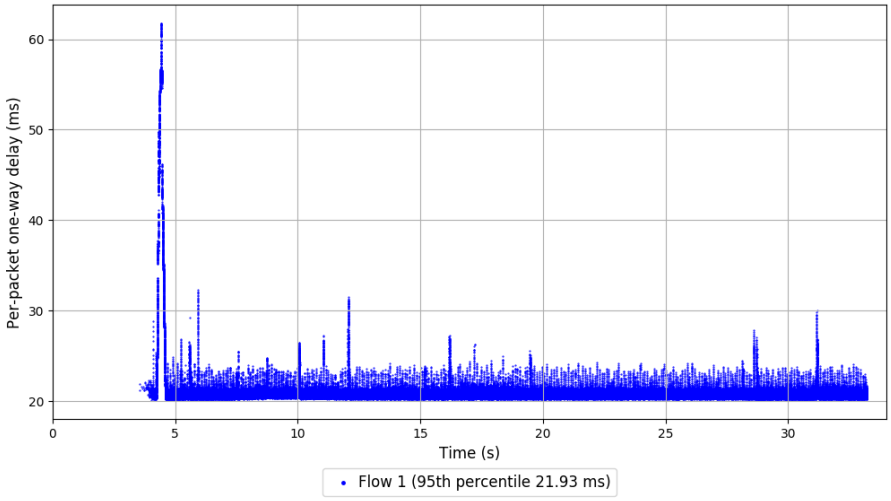
```
Run 2: Statistics of Eagle-007

Start at: 2019-10-27 03:21:04
End at: 2019-10-27 03:21:34

# Below is generated by plot.py at 2019-10-27 03:43:36
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 66.97 Mbit/s (67.0% utilization)
95th percentile per-packet one-way delay: 21.925 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 66.97 Mbit/s
95th percentile per-packet one-way delay: 21.925 ms
Loss rate: 0.18%
```

Run 2: Report of Eagle-007 — Data Link



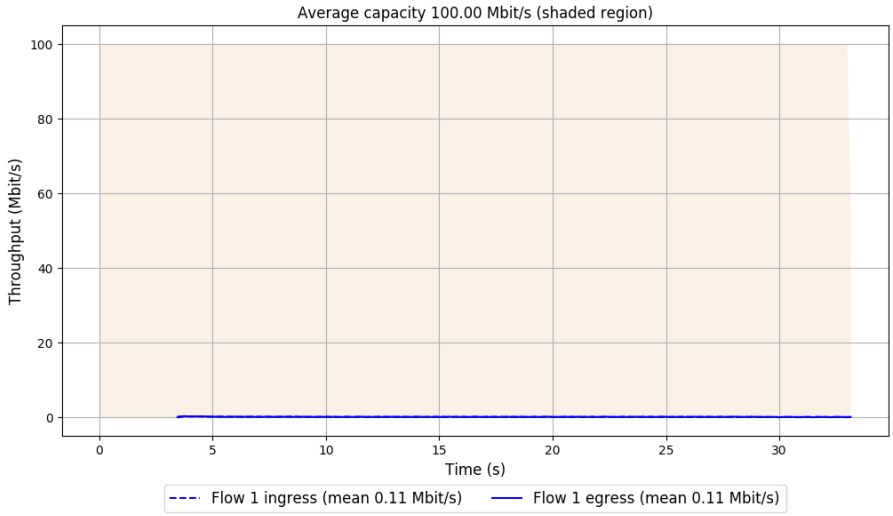


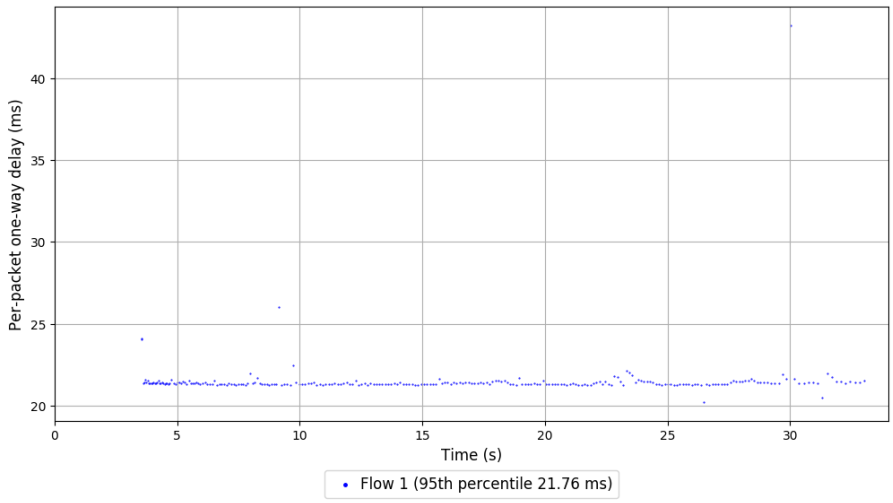
```
Run 3: Statistics of Eagle-007

Start at: 2019-10-27 03:27:26
End at: 2019-10-27 03:27:56

# Below is generated by plot.py at 2019-10-27 03:43:36
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 0.11 Mbit/s (0.1% utilization)
95th percentile per-packet one-way delay: 21.762 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 21.762 ms
Loss rate: 0.38%
```

Run 3: Report of Eagle-007 — Data Link



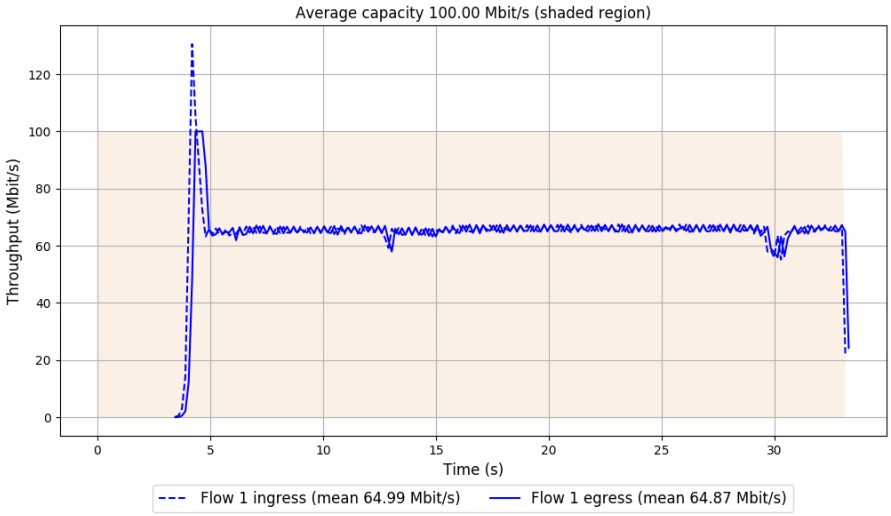


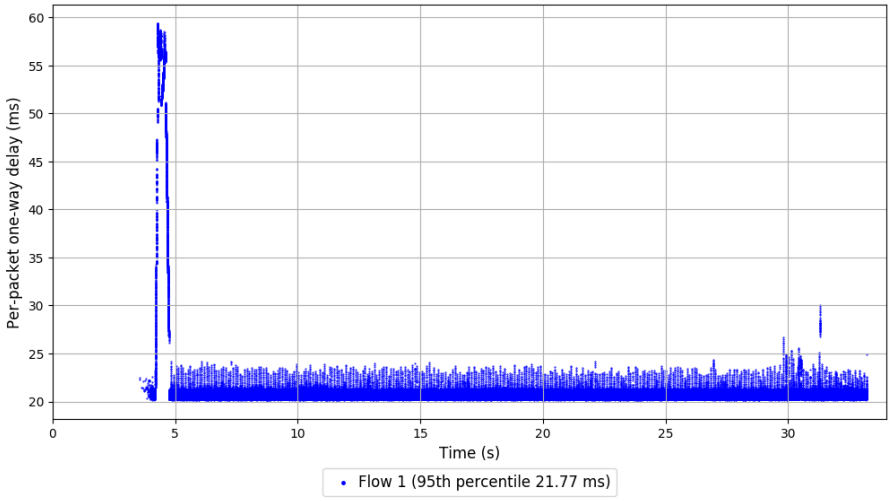
```
Run 1: Statistics of Eagle-008

Start at: 2019-10-27 03:15:15
End at: 2019-10-27 03:15:45

# Below is generated by plot.py at 2019-10-27 03:44:04
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 64.87 Mbit/s (64.9% utilization)
95th percentile per-packet one-way delay: 21.774 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 64.87 Mbit/s
95th percentile per-packet one-way delay: 21.774 ms
Loss rate: 0.26%
```

Run 1: Report of Eagle-008 — Data Link



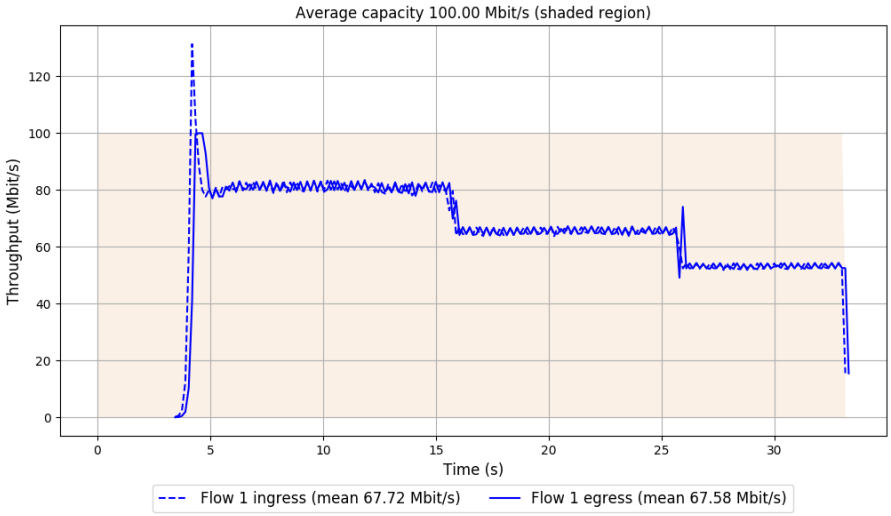


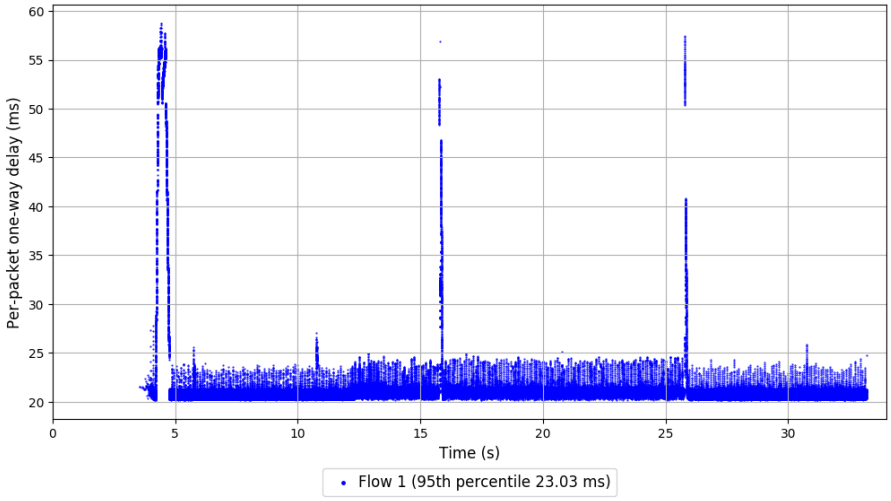
```
Run 2: Statistics of Eagle-008

Start at: 2019-10-27 03:21:42
End at: 2019-10-27 03:22:12

# Below is generated by plot.py at 2019-10-27 03:44:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 67.58 Mbit/s (67.6% utilization)
95th percentile per-packet one-way delay: 23.027 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 67.58 Mbit/s
95th percentile per-packet one-way delay: 23.027 ms
Loss rate: 0.28%
```

Run 2: Report of Eagle-008 — Data Link



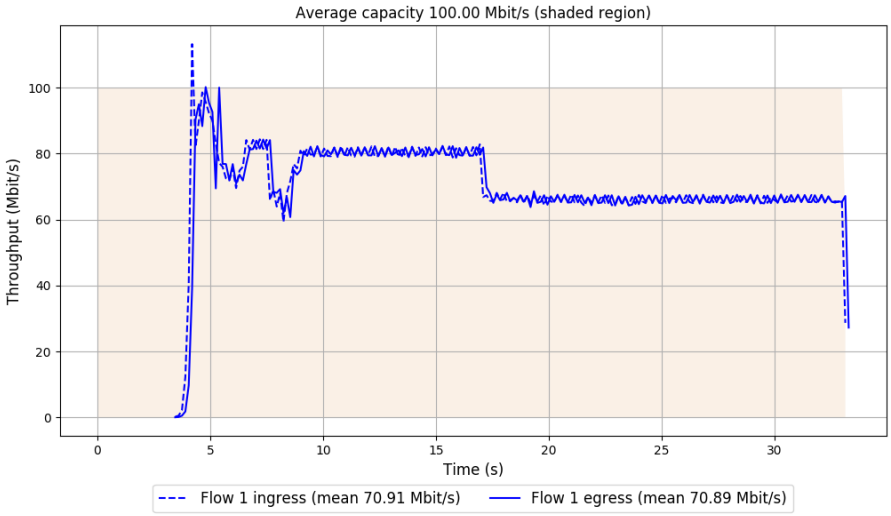


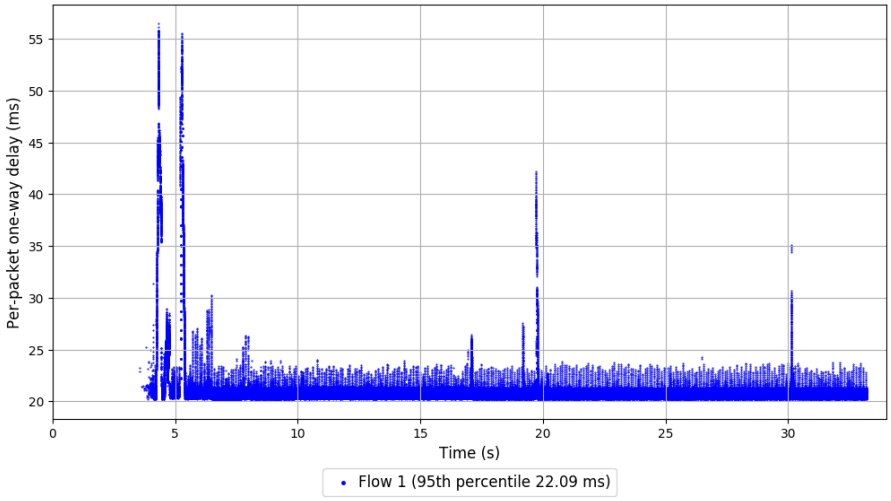
```
Run 3: Statistics of Eagle-008

Start at: 2019-10-27 03:28:01
End at: 2019-10-27 03:28:31

# Below is generated by plot.py at 2019-10-27 03:44:16
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 70.89 Mbit/s (70.9% utilization)
95th percentile per-packet one-way delay: 22.089 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 70.89 Mbit/s
95th percentile per-packet one-way delay: 22.089 ms
Loss rate: 0.11%
```

Run 3: Report of Eagle-008 — Data Link



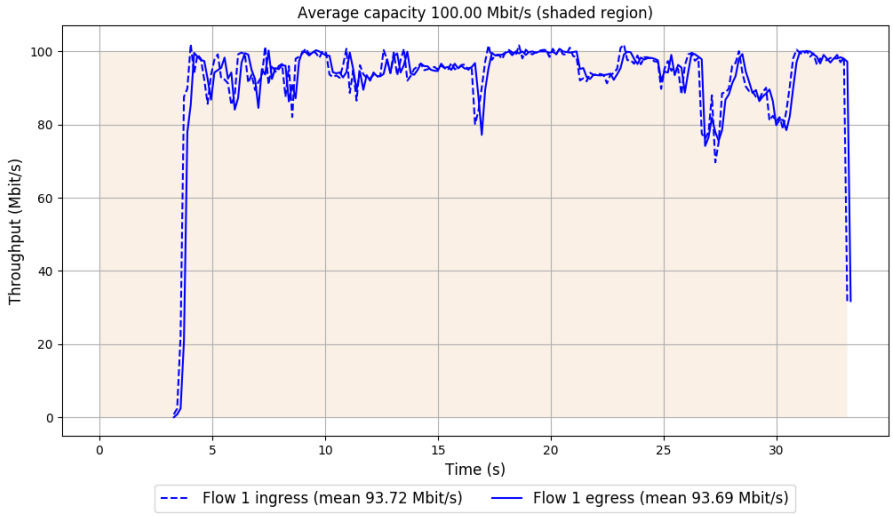


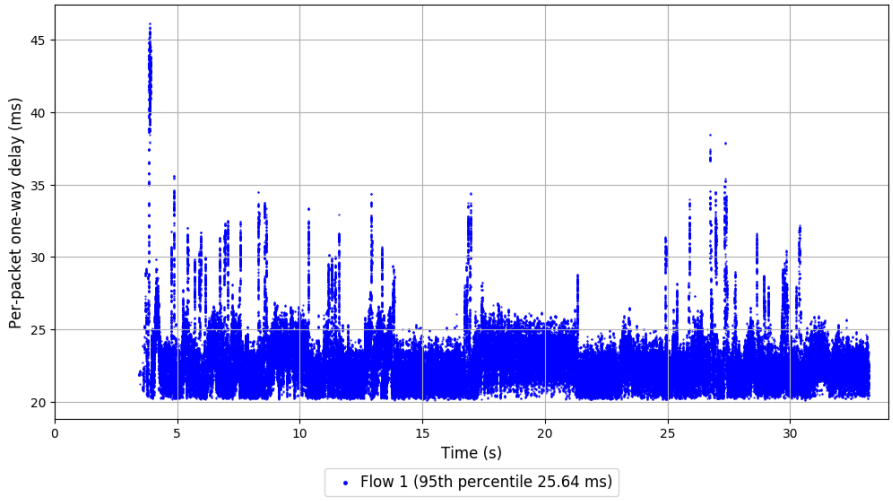
```
Run 1: Statistics of Indigo

Start at: 2019-10-27 03:17:10
End at: 2019-10-27 03:17:40

# Below is generated by plot.py at 2019-10-27 03:44:33
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 93.69 Mbit/s (93.7% utilization)
95th percentile per-packet one-way delay: 25.640 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 25.640 ms
Loss rate: 0.10%
```

Run 1: Report of Indigo — Data Link



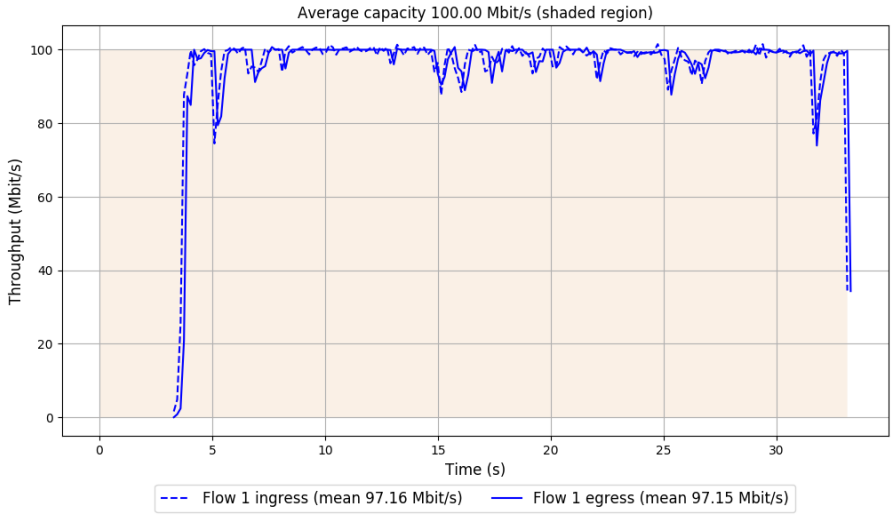


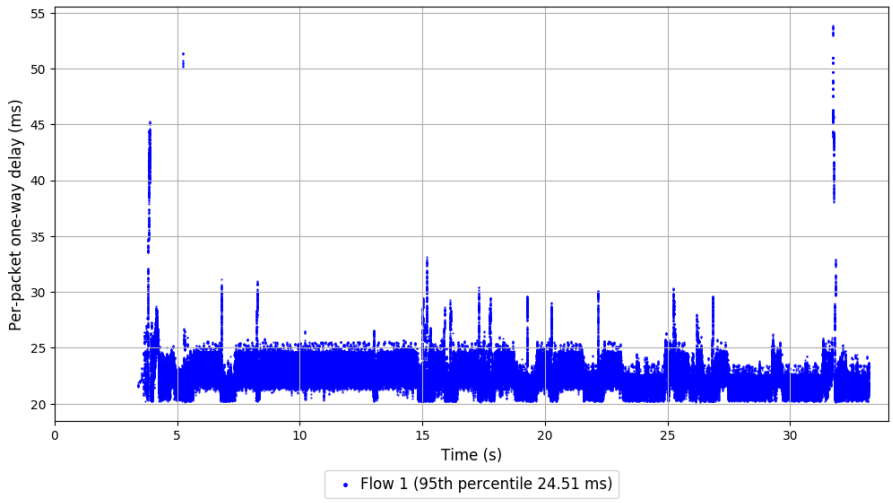
```
Run 2: Statistics of Indigo

Start at: 2019-10-27 03:23:37
End at: 2019-10-27 03:24:07

# Below is generated by plot.py at 2019-10-27 03:45:07
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 97.15 Mbit/s (97.2% utilization)
95th percentile per-packet one-way delay: 24.514 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 24.514 ms
Loss rate: 0.08%
```

Run 2: Report of Indigo — Data Link



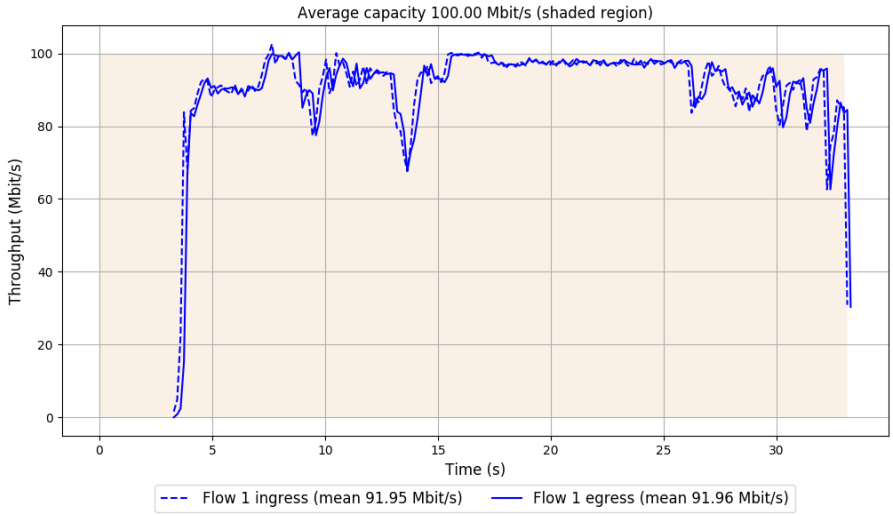


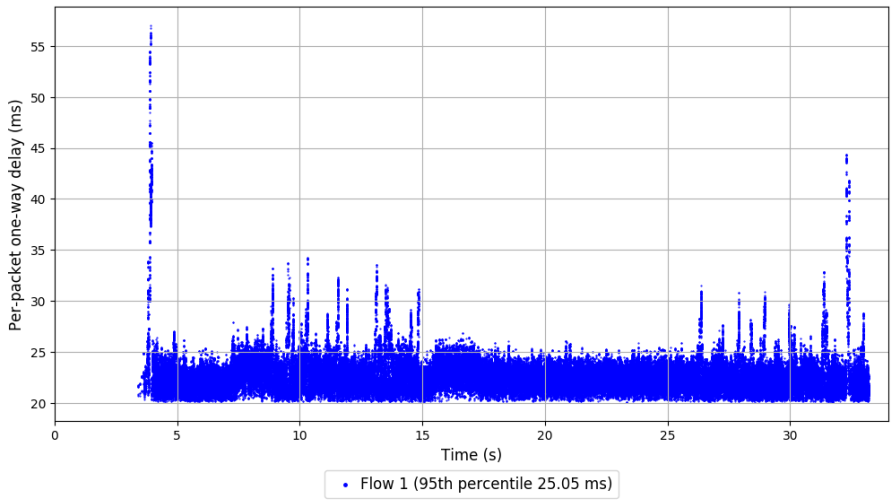
```
Run 3: Statistics of Indigo

Start at: 2019-10-27 03:29:56
End at: 2019-10-27 03:30:26

# Below is generated by plot.py at 2019-10-27 03:45:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 91.96 Mbit/s (92.0% utilization)
95th percentile per-packet one-way delay: 25.051 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 25.051 ms
Loss rate: 0.10%
```

Run 3: Report of Indigo — Data Link



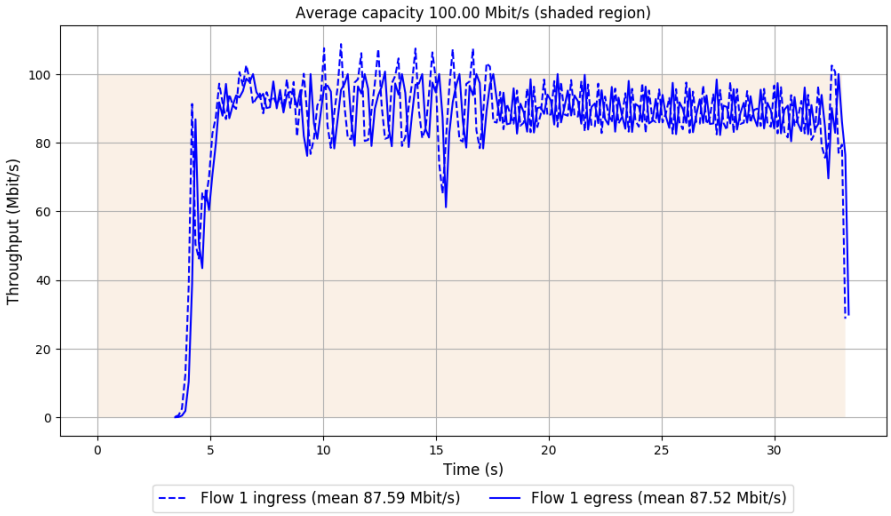


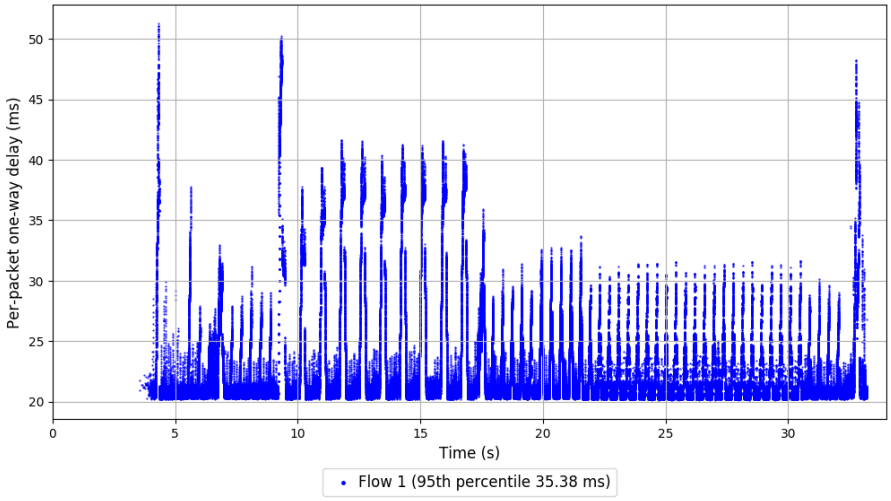
```
Run 1: Statistics of Synthesized-BBR

Start at: 2019-10-27 03:15:53
End at: 2019-10-27 03:16:23

# Below is generated by plot.py at 2019-10-27 03:45:08
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 87.52 Mbit/s (87.5% utilization)
95th percentile per-packet one-way delay: 35.377 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 87.52 Mbit/s
95th percentile per-packet one-way delay: 35.377 ms
Loss rate: 0.12%
```

Run 1: Report of Synthesized-BBR — Data Link



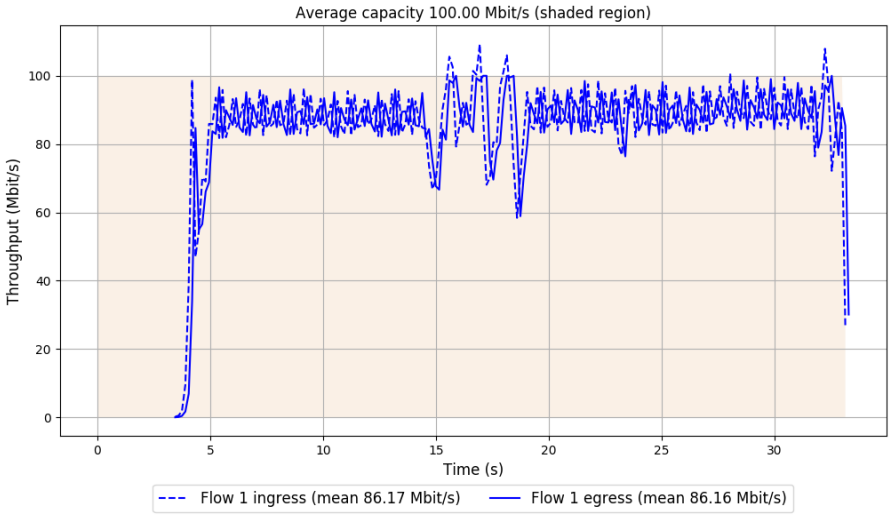


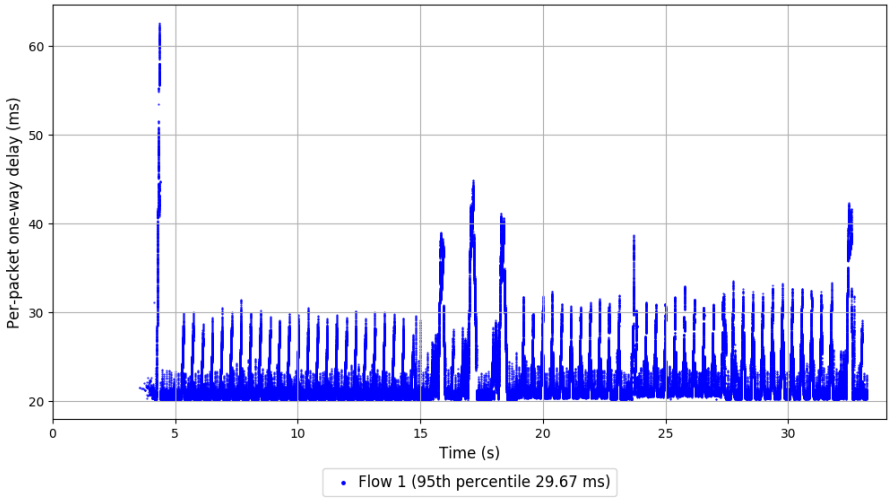
```
Run 2: Statistics of Synthesized-BBR

Start at: 2019-10-27 03:22:20
End at: 2019-10-27 03:22:50

# Below is generated by plot.py at 2019-10-27 03:45:14
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 86.16 Mbit/s (86.2% utilization)
95th percentile per-packet one-way delay: 29.672 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 86.16 Mbit/s
95th percentile per-packet one-way delay: 29.672 ms
Loss rate: 0.09%
```

Run 2: Report of Synthesized-BBR — Data Link





```
Run 3: Statistics of Synthesized-BBR

Start at: 2019-10-27 03:28:39
End at: 2019-10-27 03:29:09

# Below is generated by plot.py at 2019-10-27 03:45:18
# Datalink statistics
-- Total of 1 flow:
Average capacity: 100.00 Mbit/s
Average throughput: 86.97 Mbit/s (87.0% utilization)
95th percentile per-packet one-way delay: 29.446 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 29.446 ms
Loss rate: 0.20%
```

Run 3: Report of Synthesized-BBR — Data Link