

# Pantheon Report

Generated at 2019-10-04 23:28:16 (UTC).

Tested in mahimahi: mm-delay 30 mm-link 50mbps.trace 50mbps.trace

Repeated the test of 2 congestion control schemes once.

Each test lasted for 30 seconds running 1 flow.

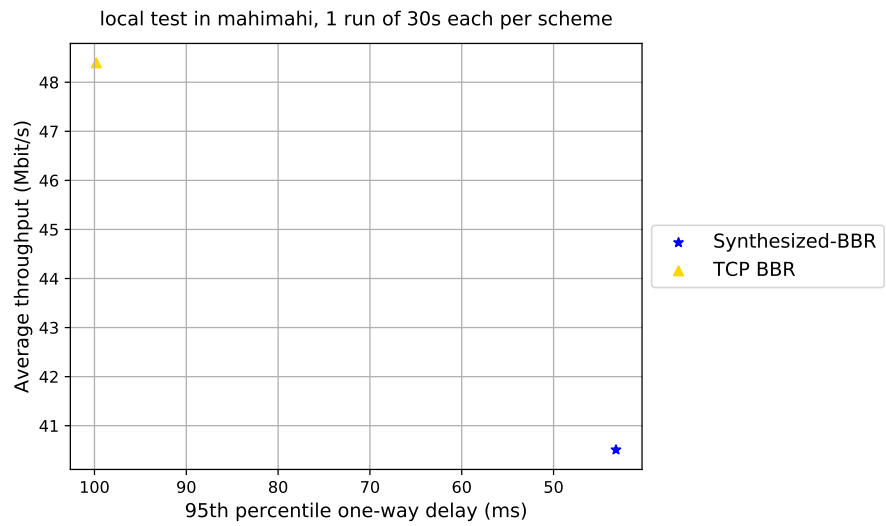
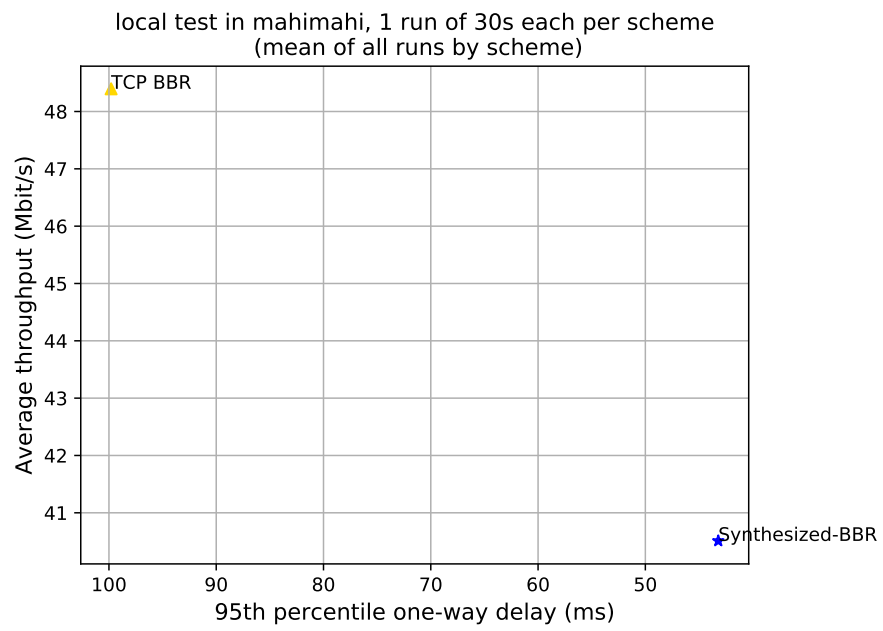
## System info:

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 @ d808508a166fa5e3428b101422830aa3e4fa2bd6  
third\_party/aurora @ f3e943d61015b39960854ba6391797e0c7984d74  
third\_party/aurora-model @ e292c316c23fb837255c4e142e40590d154bbe95  
third\_party/eagle-v1 @ c68d985e042be5c30704c0aee48c363861951a95  
third\_party/eagle-v2 @ c8a1737b3c84d7d49eada5b8785045d272a70120  
third\_party/eagle-v3 @ 27045f2c9e7b63716dab4980f0a45a660dff3d51  
third\_party/illp @ d6da1459332fcee56963885d7eba17e6a32d4519  
third\_party/illp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9  
third\_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third\_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd9f90c077e64d  
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-quick @ 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 @ 27045f2c9e7b63716dab4980f0a45a660dff3d51  
M sender-receiver/sender-receiver/sender\_receiver/envs/sender\_receiver\_env.py

```
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	1	48.40	99.80	0.41
Synthesized-BBR	1	40.51	43.20	0.17

Run 1: Statistics of TCP BBR

Start at: 2019-10-04 23:26:06

End at: 2019-10-04 23:26:36

# Below is generated by plot.py at 2019-10-04 23:28:15

# Datalink statistics

-- Total of 1 flow:

Average capacity: 50.00 Mbit/s

Average throughput: 48.40 Mbit/s (96.8% utilization)

95th percentile per-packet one-way delay: 99.798 ms

Loss rate: 0.41%

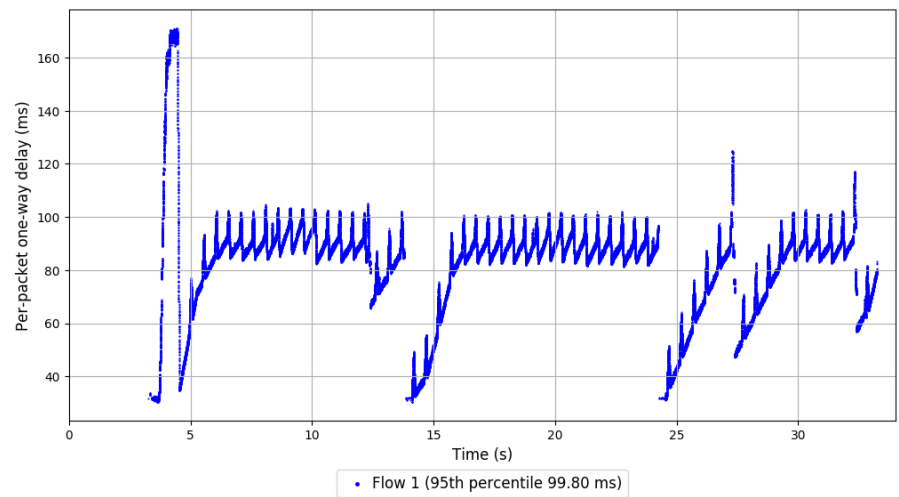
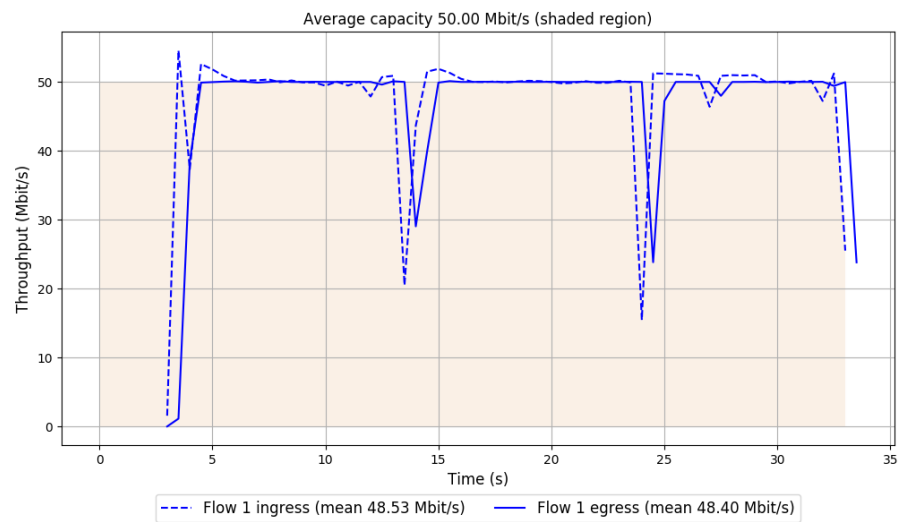
-- Flow 1:

Average throughput: 48.40 Mbit/s

95th percentile per-packet one-way delay: 99.798 ms

Loss rate: 0.41%

Run 1: Report of TCP BBR — Data Link



Run 1: Statistics of Synthesized-BBR

Start at: 2019-10-04 23:26:43

End at: 2019-10-04 23:27:13

# Below is generated by plot.py at 2019-10-04 23:28:15

# Datalink statistics

-- Total of 1 flow:

Average capacity: 50.00 Mbit/s

Average throughput: 40.51 Mbit/s (81.0% utilization)

95th percentile per-packet one-way delay: 43.202 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 40.51 Mbit/s

95th percentile per-packet one-way delay: 43.202 ms

Loss rate: 0.17%

## Run 1: Report of Synthesized-BBR — Data Link

