Performance analysis for TCP BBR in Mininet

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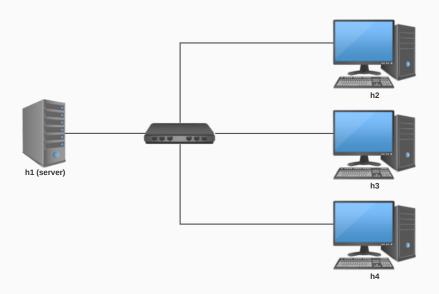
TCP BBR

- Developed by Google
- OpenSource
- blah blah blah

Test setup

- Mininet 2.3 on Debian 9
- Virtual machine running on VirtualBox
- Provisioned through Vagrant

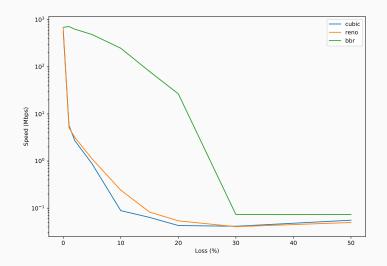
Topology



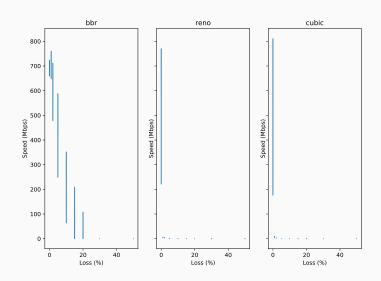
20 seconds Iperf test: description

- h1 as server
- h2 as client
- Client options: -f k -c IP -t 20
 - -f k kbps as output format
 - -t 20 Run for 20 seconds

20 seconds Iperf test: results [1/2]



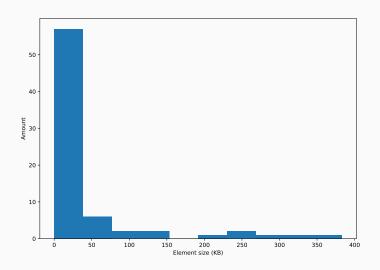
20 seconds Iperf test: results [2/2]



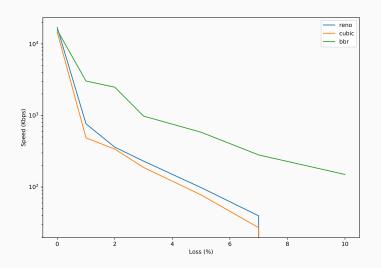
Complex web page simulation: description

- h1 as server
- h2 as client
- nginx as server since Python's SimpleHTTPServer is too slow
- wget -r as client, simulating the web page browsing
- bbc.co.uk index page as an example: elements has same size but random data
- 72 elements with a total size of 2.902 MB
- Speed is obviously slower than a single big file download
- Elements included as images into a simple HTML file

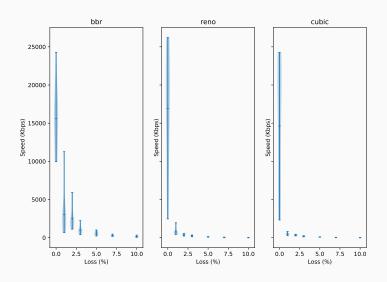
Complex web page simulation: page structure



Complex web page simulation: results [1/2]



Complex web page simulation: results [2/2]



Topology