Verification Document Christopher Hannon & Neil Getty

In order to verify the correctness of the program we run the experiment on the star and linear topologies.

To run ... in ./src/

## sudo make clean sudo make ./setupTestFiles.sh 1-9

This creates hosts 0-9, 10 files of various size with random data 1-100kb, and places the input (to query the files on a input file ../topologies/topo/input\_2.txt) for host 1-9 input. All the input files are placed in ./topologies/topo/input\_\*.txt (in the parent directory) and the output files are created in ../topologies/topo/out\_\*.txt. The test files are located in /src/tests/test\*/file\_xxx.bin

Now the experiment is ready to run. In order to run it Mininet must be installed. Run **sudo** ./experiment (star/linear) (pull/push). Depending on the topology desired and the method desired. The output files are stored in ./topologies/topo/out\_x.txt.

We run a total of 14 experiments with 100 queries from each host. 7 on each method, push and pull. The experiments take about 10 mins each.

The valid input is **file name** or **file name -r** to refresh the file from the origin server.

./setupTestFiles.sh 1
sudo ./experiment star pull
./setupTestFiles.sh 2
sudo ./experiment star pull
./setupTestFiles.sh 3
sudo ./experiment star pull
./setupTestFiles.sh 4
sudo ./experiment star pull
./setupTestFiles.sh 5
sudo ./experiment star pull
./setupTestFiles.sh 6
sudo ./experiment star pull
./setupTestFiles.sh 7
sudo ./experiment star pull

./setupTestFiles.sh 1
sudo ./experiment star push
./setupTestFiles.sh 2
sudo ./experiment star push
./setupTestFiles.sh 3
sudo ./experiment star push
./setupTestFiles.sh 4
sudo ./experiment star push
./setupTestFiles.sh 5
sudo ./experiment star push
./setupTestFiles.sh 6
sudo ./experiment star push
./setupTestFiles.sh 7

sudo ./experiment star push