



Results

**The 3 experiments**

- Experiment 1: 4 VCPU'S, 8 GB RAM for 1 container
- Experiment 2: 2 VCPU'S, 4 GB RAM for 2 containers
- Experiment 3: 1 VCPU'S, 2 GB RAM for 4 containers

**Workload A: Update heavy workload**

This workload has a mix of 50/50 reads and writes

**Workload B: Read mostly workload**

This workload has a 95/5 reads/write mix.

**Workload C: Read only**

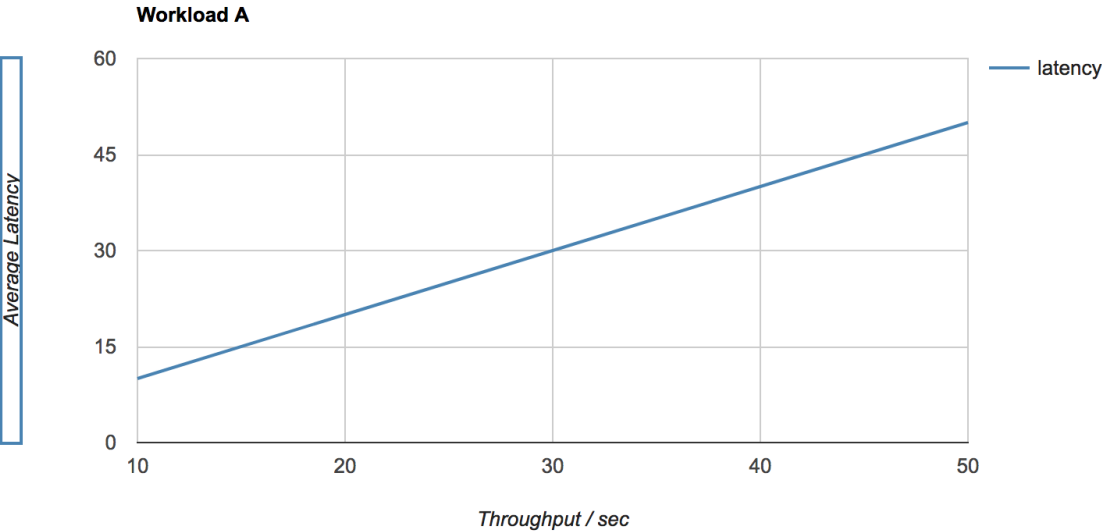
This workload is 100% read.

**Workload D: Read latest workload**

New records are inserted, and the most recently inserted records are the most popular.

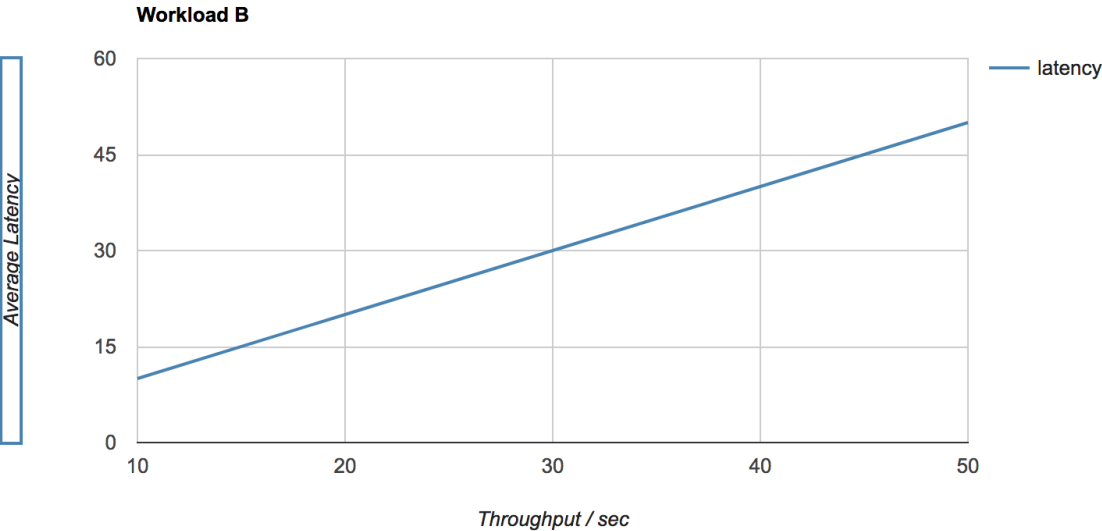


Results



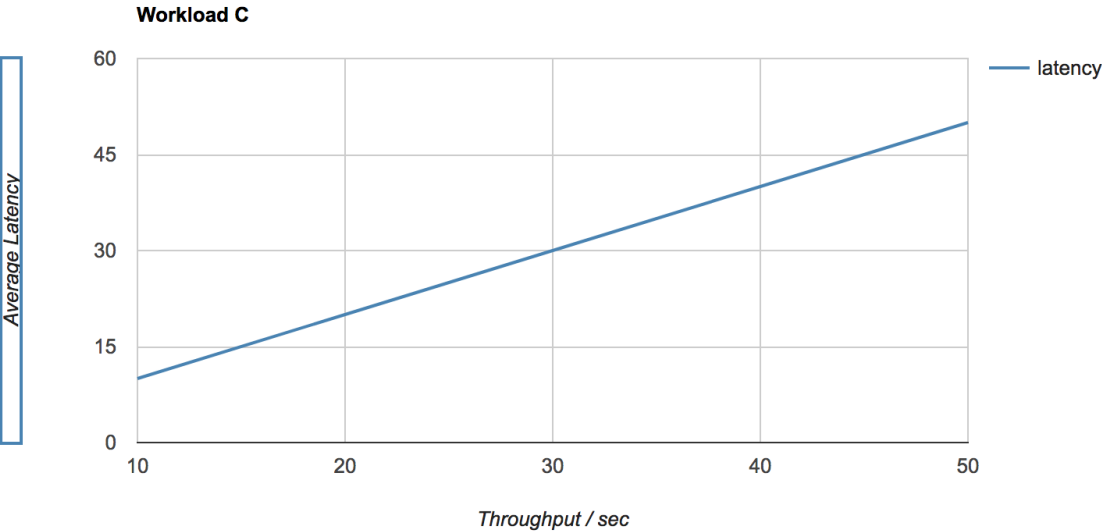


Results



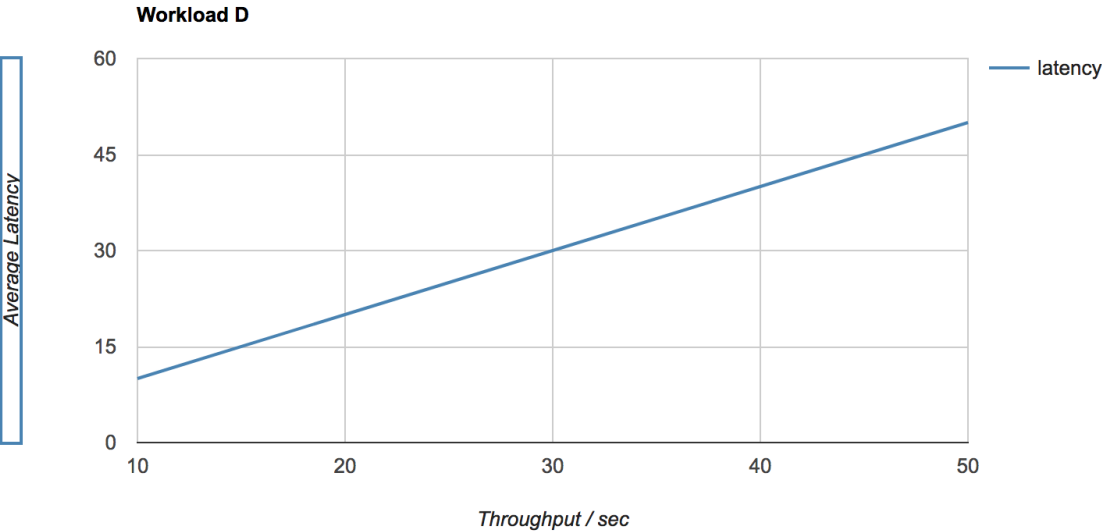


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Currently the default configuration for Cassandra as a NoSQL database is not very good and can be improved. Since many database administrators simply deploy the default configuration regardless of their given architecture, the databases usually aren't very efficient or practical.

The SmartDeployer is an automation tool that will deploy Cassandra via Docker Containers in a smarter way than just the default installation process. Eventually the SmartDeployer will look to optimize the configuration of Cassandra on a given cluster of virtual machines. And the project would also include a web-based visualization tool, which will read the benchmark and output as graph.

The project is aimed at database administrators on distributed linux database servers. With the use of this deployer it will continue to allow them to easily deploy NoSQL databases while maximizing the underlying configuration given their architecture and resources.



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### How this application works

The project has two components: the deployer and the web application. The deployer will automatically installing the container and run the YCSB benchmark. It then output the YCSB result into a database. The web application will read from the database to show the result graphiccally using browser.

### License:

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## Results

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