

Load Balancing Algorithms on AWS Cloud

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I. PROPOSED EXPERIMENT

The experiment is supposed to test different balancing algorithms in a cloud system that is used in production. Apart from that the results should be compared with results of the same algorithm obtained in cloud simulations system to determine if the ranking of the algorithms is kept in this environment.

The experiment consists of multiple steps:

1. Deploying an EC2 instance that takes care of the load balancing using NGINX.
2. Deploying multiple EC2 instances that will run a simple python program that waits a HTTP request, simulates processing of some data and returns an HTTP response with code 201.
3. Adding the worker server ip's to the load balancing configuration.
4. Executing a multi-thread python application that creates multiple HTTP requests to the load balancing server and measures the time needed for these requests.

A. Mathematic model of the experiments

B. Original