Distributed Cloud Scheduler

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2 Introduction

Stage 1 of this project is to design and develop a client-side simulator for basic scheduling and dispatching of jobs. The jobs are provided to the client via the ds-sim protocol in plain text from the server-side simulator. The client will then dispatch the jobs to the largest available server.

This client will follow the structure and communication format as shown in ds-sim user guide [2] section 6 “ds-sim communication protocol”. The client will behave similarly to the given pre-compiled ds-sim-client [3].

3 System Overview

System overview (½ page): high-level description of the system (both client-side simulator and server-side simulator with the focus being your client-side simulator), preferably, with a figure (your own, not one in ds-sim User Guide) showing the workflow/working of the system.

4 Design

Design (1 page): design philosophy, considerations and constraints, functionalities of each simulator component focusing on the client-side simulator.

5 Implementation

Implementation (2 pages): brief description of any implementation specific information including technologies, techniques, software libraries and data structures used. How each of components/functions of your simulator is implemented including who oversees which function(s) and how they have led the design and development.

6 References

[1] https://github.com/CazDev/Distributed-Cloud-Scheduler
[2] https://github.com/distsys-MQ/ds-sim/blob/master/docs/ (ds-sim user guide)
[3] https://github.com/distsys-MQ/ds-sim/blob/master/src/pre-compiled/ds-client