



Contribution ID: 40

Type: **not specified**

Dynamical Provisioning of Cloud Computing Resources for Batch Processing

Wednesday, October 19, 2016 11:10 AM (25 minutes)

We aim to build a software service for provisioning cloud-based computing resources that can be used to augment users' existing, fixed resources and meet their batch job demands. This service must be designed to automate the delivery of compute resources (HTCondor execute nodes) to match user job demand in such a way that cloud-based resource utilization is high and, thus, cost per cpu-hour is low. In addition, since this provisioning service will acquire resources on behalf of its users, acting as a third-party buyer for them, it is also our fiduciary responsibility to ensure the system is stable or, at least, that stability can be maintained. In order to assess if stable resource utilization is possible, a dynamical systems approach is developed to provide a framework for understanding how the provisioning service will respond to user job demand. We will present our latest results on the project and give an overview of the development plan moving forward.

Primary author: Dr KANDES, Martin (Univ. of California San Diego (US))

Presenter: Dr KANDES, Martin (Univ. of California San Diego (US))

Session Classification: Computing and Batch Services

Track Classification: Computing & Batch Services