Abstract

In this paper a new approach for driving a better cloud computing IaaS Services is presented. This approach focuses on extending the available cloud computing platform infrastructure by harvesting underused generic computing resources that are widely available within public domains such as universities and organizations. Most of the current cloud computing platforms are mainly based on using a dedicating infrastructure to achieve the requested services. The proposed approach aims to improve the computing power for the cloud computing platform without charging any extra cost since generic machines are owned by the enterprise. A new Resources management mechanism is introduced to manage the combination of the dedicated and generic machines. In order to implement and achieve the goals of the proposed approach several challenges should be conquered. These challenges are coming from the inherently stochastic characteristics of the harvested unused computing such as reliability and hardware compatibility. In the implementation, Openstack cloud computing platform is used and extended in such a way that guarantees QoS and an opportunistic use of the idle or underused generic or public computing resources.
A New Approach to Manage and Utilize Cloud Computing Underused Resources

References


http://boinc.berkeley.edu/
A New Approach to Manage and Utilize Cloud Computing Underused Resources


Index Terms

Computer Science

Cloud Computing
Keywords