Abstract

Cloud computing refers to Internet based distributed computing where the physical resources are pooled at one end and users across the globe can have access to unlimited resources as pay-as-you-go utility computing model. Cloud service users request computing resources and cloud service provider provides them as virtual machine (VM) instances. The problem addressed here is dynamic VM creation and allocation which benefit users in terms of response time and Cloud Service Providers (CSP) in terms of reduced energy and management cost by increasing the utilization of physical resources which are powered up for the time being and reduce the number of machines which need to be turned on. The proposed system include a demand forecast module which helps provisioning sub system, that manages the dynamic provisioning, in VM creation and management decisions.

References

- T. Chieu and H. Chan, Dynamic resource allocation via distributed decisions in cloud
Resource Provisioning and Management for IaaS providers in Cloud Computing


- S. Nakrani, C. Tovey, On honey bees and dynamic allocation in an Internet Server Colony, 2nd International workshop on mathematics and algorithms of social insects, CCIS2012, 2003


- M. Andreolini, S. Casolari, Load prediction models in web-based systems, ACM conference on performance evaluation methodologies and tools, 2006

Index Terms

Computer Science

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Keywords

Cloud Computing Resource Provisioning IaaS Resource Allocation Policy