Abstract

Cloud is a high performance computing environment in which many users are allowed to utilize the data, storage, computations and services from all around the world. Cloud environment contains heterogeneous collection of systems and is very flexible. Still scheduling of tasks is a major issue in cloud computing environment. Efficient utilization of tasks can be obtained by proper scheduling of all the tasks submitted to the cloud. This paper considers two QoS(Quality of Service) aspects : deadline and makespan for obtaining best schedule of tasks in a private cloud. Bi-objective Genetic Algorithm is used with the aim to minimize the violation of deadline and makespan of tasks.
- Rodrigo N. Calheiros1, Rajiv Ranjan2, Anton Beloglazov1, C´esar A. F. De Rose3 and Rajkumar Buyya1 ”CloudSim: a toolkit for modeling and simulation of cloud computing environments and evaluation of resource provisioning algorithms”; Published online 24 August 2010 in Wiley Online Library(wileyonlinelibrary.com). DOI: 10. 1002/spe. 995
- Siyuan Jing, Kun She, ”A Generic Approach to Achieve Optimal Server Consolidation by Using Existing Servers In Virtualized Data Center”; International Journal of Computer and Information Engineering 4:3 2010.
QoS-Based Scheduling of Tasks using Bi-Objective Genetic Algorithm in Private Cloud


Index Terms

Computer Science
Algorithms

Keywords
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