Abstract

The cloud based platforms are designed specifically for the provision of the high performance clusters (HPC), which is realized by using the multiple techniques all together for the realization of the distributed computing environment. The cloud platforms are designed to handle the independent queries either in the groups or individually for the minimization or optimization of the response time for the rich user experience. For this, the cloud models utilize the versatile task scheduling models, which are based upon the various types of parameter either in individuality or aggregate. In this paper, the random weight based calculation for the scheduling of the tasks over the target cloud systems, which is further channelized using the ant colony optimization (ACO) based swarm intelligence. The performance of the ACO with random weights based algorithm based upon the response time and energy consumption on a primary note. The proposed model has been found efficient in the terms of the obtained performance parameters.
Smart Workflow Scheduling using the Hybridization of Random Weight Model with Ant Colony Optimization (RWM-ACO)

Index Terms

Computer Science

Algorithms

Keywords

Swarm intelligence, random weight computation, cloud task scheduling, workflow management.