Abstract

Cloud computing is a subscription-based service whose primary benefit is application scalability which allows real-time provisioning of resources to meet application requirements. Scheduling is the most prominent issue in cloud computing. Generally the goal of scheduling is to properly dispatch parallel jobs to slave node machines according to different scheduling policies. In this paper previously existing algorithms i.e. Particle Swarm Optimization (PSO), Improved Particle Swarm Optimization (IPSO), Simulated Annealing (SA) Algorithm, and Hybrid Particle Swarm Optimization-Simulated Annealing based on utilization time are studied which were proposed to handle problems posed by network properties between user and resources. A new algorithm is designed using shortest path theory, Particle Swarm Optimization and Simulated Annealing technique which achieve the target consuming less average execution time to obtain more efficiency in resource utilization and minimize the cost of the processing.

References

An Upgraded Algorithm of Resource Scheduling using PSO and SA in Cloud Computing

Society and Media, 2010.
An Upgraded Algorithm of Resource Scheduling using PSO and SA in Cloud Computing

- Sharat Chandra Racha, "Load Balancing Map-Reduce Communication for Efficient Execution of Applications in a cloud", 2012.
An Upgraded Algorithm of Resource Scheduling using PSO and SA in Cloud Computing


Index Terms

Computer Science

Algorithms

Keywords

Scheduling
IPSO-Improved Particle Swarm Optimization
PSO-Particle Swarm Optimization
SA-Simulated Annealing