Max-Min Ant System based Approach for Intelligent VM Migration and Consolidation for Green Cloud Computing

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Abstract

Cloud computing has bring a revolution in the field of computing. Many algorithms are proposed to make it even more efficient. In cloud computing Virtualization plays an important role and whole performance of cloud depends on VM allocation and Migration. As lots of energy is consumed in this technology so algorithms to save energy and improve efficiency are proposed called Green algorithms. In this paper a green algorithm for VM Migration is proposed using meta-heuristic algorithm called ACO. The variant of ACO used in this paper is Max-Min Ant System. Results show that Max-Min Ant System gives best result as compared to other approaches in terms of VM Migrations, VM consolidation and energy consumptions.

References


8. C. Belady, “In the data center, power and cooling costs more than the equipment it supports,” 2007. URL http://www.electronicscooling.com/articles/2007/feb/a3/.


Index Terms

Computer Science
Distributed Computing

Keywords