Abstract

Cloud computing is a novel paradigm that aims to provision on-demand computing capacities as services. Virtualization is an important technology integrated in Cloud Computing. Mapping the virtual machines to the appropriate physical machines is called VM placement. The effectiveness and elasticity of virtual machine placement has become the main concern in cloud computing environments. Effective placement of virtual machines is important for optimization of computational resources and reduction of the probability of virtual machine reallocation. This paper provides a survey and brief analysis of some of the main VM Placement mechanism utilized in cloud computing.

References


Cloud Data Center. Procedia Computer Science, 78, 491-498. doi:10.1016/j.procs.2016.02.093


Index Terms

Computer Science
Distributed Systems

Keywords

Virtual Machine Placement, Constraint Programming, Stochastic Integer Programming, Bin Packing, Genetic Algorithm, Cloud computing, Performance evaluation