Abstract

With the advent of cloud computing in the arena of IT field energy consumption and service level agreement (SLA) violation emerge as a major problem, which reduces the profit of cloud service providers (CSP) and affect the cloud customers by fencing the reusability and scalability of the cloud data center services. This problem needs to be eradicate for the efficient resource provisioning in cloud data center. To satisfy the customer need virtual machine (VM) migration technique is required to balance the load of entire data center. Therefore we need to transfer the virtual machine of the overloaded host to the light weighted host using virtual machine migration technique. Due to frequent load balancing of cloud data center enormous amount of energy consumption takes place. This enhances the overall energy cost and degrades the performance of cloud data center. This paper proposes an Energy Efficient Dynamic VM Consolidation algorithm for reducing energy consumption.
6. C.L. Belady, “In the Data center, power and cooling costs more than the equipment it supports,” Nov. 2013.

Index Terms
Keywords

Cloud computing, Cloud service provider (CSP), Energy consumption, SLA violation, Load balancing, VM migration.