Abstract

With the advent of increased use of computers and computing power, state of the art of cloud computing has become imperative in the present-day global scenario. It has managed to remove the constraints in many organizations in terms of physical internetworking devices and human resources, leaving room for better growth of many organizations. With all these benefits, cloud computing is still facing a number of impediments in terms of energy consumption within data centers and performance degradation to end users. This has led many industries and researchers to find feasible solutions to the current problems. In the context of realizing the problems faced by cloud data centers and end users, this paper presents a summary of the work done, experimentation setup and the need for a greener cloud computing technique/algorithm which satisfies minimum energy consumption, minimum carbon emission and maximum quality of service.


34. A. Beloglazov, J. Abawajy, and R. Buyya, “Energy-aware resource allocation heuristics


**Index Terms**

Computer Science

Information Sciences

**Keywords**

Cloud computing, virtual Machines, Virtualization, IaaS, hypervisors, energy consumption, performance, and energy efficiency