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## Abstract

Cloud computing is a recent innovation, which provides various services on a usage based payment model. The rapid expansion in data centers has triggered the dramatic increase in energy used, operational cost and its effect on the environment in terms of carbon footprints. To reduce power consumption, it is necessary to consolidate the hosting workloads. In this paper, we present a Single Threshold technique for efficient consolidation of heterogeneous workloads. Our technique focuses on the energy consumption of the data center due to the heterogeneity of the workloads and also gives information about the SLA violations. The experimental results demonstrate that our technique is efficient for the data centers to consolidate the heterogeneous workloads.

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## Index Terms

Distributed Computing

**Keywords**

Cloud Computing Energy Efficiency and Heterogeneous Workload Consolidation