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Minimizing SLA violation and power consumption in Cloud data centers using adaptive energy-aware algorithms

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- Addressed the problem of reducing Cloud datacenter high energy consumption with minimal Service Level Agreement (SLA) violation.
- We propose two novel adaptive energy-aware algorithms for maximizing energy efficiency and minimizing SLA violation rate in Cloud datacenters.
- The proposed energy-aware algorithms take into account the application types as well as the CPU and memory resources during the deployment of VMs.
- We performed extensive experimental analysis using real-world workload
- The experimental results show that, compared with the existing energy-saving techniques, the proposed approaches can effectively decrease the energy consumption in Cloud datacenters while maintaining low SLA violation.

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