

## Documents

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**An Enhanced Strategy to Minimize the Energy Utilization in Cloud Environment to Accelerate the Performance**

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**Abstract**

The need for power consumption prevailing in data centers and increased demand for cloud structures as service entity has raised several issues in power management or energy optimizations in large scale computing. The increased demand for virtualization of all resources demands further increased power utilization leading to more expensive operation cost. Therefore, an efficient strategy would resolve the aforementioned issue and also assure to provide the required Quality of Service (QoS) of the cloud computing system. This paper introduces an Enhanced Dynamic Voltage and Frequency Scaling (EDVFS) along with a Single Threshold (ST) value to minimize the energy utilization and Service Level Agreements (SLA). This paper provides a case study comprising of job arrival pattern which is recorded from a monitoring system in order to analyze the energy utilization especially at peak hours when there is a cloud burst. The investigation results have led to the introduction of a mathematical approach, where in we have arrived at an Enhanced Dynamic Voltage and Frequency Scaling for the cloud computing system (EDVFS).

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