Abstract

Multi-core processor is viewed as the future production of microprocessor design. It is not only a solution for CPU speeds but also it decreases the power consumption, because many cores in a lower frequency collectively produce less heat dissipation than one core with their total frequency. From this point of view, Cloud computing will be mostly built on top of multi-core technologies. However, to fully take advantage of the computational capability and the other advantages of multi-cores, a lot of new techniques must be proposed and considered. In this research paper, a resource-scheduling algorithm along with a server consolidation algorithm is applied to multi-core processors. It is be shown by experimental results that adding cores to the processors in data centers increases the system performance, decreases the power consumption, along with other benefits.

References

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Index Terms

Computer Science Distributed Systems
Keywords

Cloud Computing, Scheduling, Multi-core processors, Cloudsim.