Cloud Scheduling - A Survey

Abstract

Cloud computing is a new technological trend that supports better utilization of IT infrastructure, services and applications. It follows pay-per-use approach for its services, in which user do not need to own infrastructure, platform or applications but use them at any time wherever they need them. The realization of Cloud computing has become a reality with the support of various paradigms like Distributed Systems, Virtualization, Web 2.0, Service-oriented Computing and Utility Computing. In all these paradigms, scheduling forms an important role. In the last few decades a lot of research has been devoted to scheduling starting from High Performance Computing facilities, still there are lot of issues related to scheduling with respect to cloud scenario. In this paper, existing scheduling algorithms such as online scheduling, cost-effective scheduling, workflow scheduling etc., for cloud scenario were compared. This survey shows the need for new algorithms with energy efficiency, bandwidth usage and power efficiency are to be considered for the better cloud services.

References

- Peter Mell Timothy Grance, "The NIST Definition of Cloud Computing," NIST
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- Ioannis A. Moschakis • Helen D. Karatza, "Evaluation of gang scheduling

Index Terms

Computer Science                         Distributed Systems

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Cloud Computing  Virtualization  Scheduling  Scheduling Algorithms