A Survey on Determining the Characteristics of Deadlock, Scheduling and Workflow Instances and Providing New Algorithms for the Issues Arising in Hybrid Cloud

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Abstract

Effective scheduling is a key concern for the execution of performance driven cloud applications. We have analyzed the various characteristics of deadlock, its occurrences and the strategies to overcome it. We have also discussed some of the algorithms used for scheduling and workflow in hybrid and grid computing. To overcome this, we can use dynamic-critical path algorithm and Cost based workflow scheduling algorithm. The goal of Grid computing is to aggregate the power of widely distributed resources. Grid is not capable of optimizing multiple scheduling but it is possible in cloud. Cloud computing is an emerging technology that provide the users on demand service. One of the issues is the occurrence of deadlock because many users are requesting for the same resource. To improve the performance of the entire system a high degree of concurrency is obtained by running multiple instances at the same time. On the other hand, since the amount of storage is limited on most systems, deadlock due to numerous storage requests would-be a problem.

References

- T. Werner, “Target gene identification from expression array data by promoter


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**Index Terms**

Computer Science  
Distributed Systems

**Keywords**  
workflows  task scheduling  instances  deadlock  dependency.