Abstract

A distributed system is a software system in which components located on networked computers communicate and coordinate their actions by passing messages. Most of the existing solutions on task scheduling and resource management in distributed computing environment are based on the traditional client/server model, enforcing a homogeneous policy on making decisions and limiting the flexibility, unpredictable reliability and scalability of the system. Thus, we need well organized system architecture to provide high system availability with task scheduling scheme for distributed system especially on Grid and Cloud. In this paper, we propose an efficient rescheduling based task scheduling algorithm named improved Min-Min Algorithm (I Min-Min) which performs scheduling in order to enhance system performance in any distributing system. The proposed method has two-phases. In the first phase the traditional Min-Min algorithm is executed and in the second phase the tasks are rescheduled to use the unutilized resources effectively.

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**Index Terms**

Computer Science  Distributed Systems

**Keywords**

Distributed computing  Min-Min algorithm  Scheduling algorithm  Resource allocation technique

Cloud computing

Grid computing