Abstract

In the last decade, scheduling of Directed Acyclic Graph (DAG) application in the context of Grid environment has attracted attention of many researchers. However, deployment of Grid environment requires skills, efforts, budget, and time. Although various simulation toolkits or frameworks are available for simulating Grid environment, either they support different possible studies in Grid computing area or takes lot of efforts in molding them to make them suitable for scheduling of DAG application. In this paper, design and implementation of GridSim based ready to use application scheduler for scheduling of DAG application in Grid environment is described. The proposed application scheduler supports supplying DAG application and configuration of Grid resources through GUI. An implementation of Min-Min static scheduling algorithm for scheduling of DAG application is also described to validate the proposed scheduler. The proposed DAG application scheduling simulator is useful, easy, and time-saver.

References


Index Terms

Computer Science Information Sciences

Keywords

DAG application scheduler  DAG application scheduling  dependent task scheduler

dependent task scheduling

static scheduling

Grid simulation