

Simulated annealing algorithm for scheduling divisible load in large scale data grids

ABSTRACT

In many data grid applications, data can be decomposed into multiple independent sub datasets and distributed for parallel execution and analysis. This property has been successfully exploited using divisible load theory (DLT). Many scheduling approaches have been studied but there is no optimal solution. This paper proposes a novel simulated annealing (SA) algorithm for scheduling divisible load in large scale data grids. SA algorithm is integrated with DLT model and compared with the previous approaches. Experimental results show that the proposed model obtains better solution in term of makespan.

Keyword: Divisible load theory; Data grid; Simulated annealing