Abstract

Grid computing is a distributed computing taken to next evolutionary level. In this work, a static methodology has been adopted for defining the weights of the computational tasks and communicating edges. Also, we defined the execution time (makespan) as the total time between the finish time of exit task and start time of the entry task in the given Directed Acyclic Graph (DAG). The algorithm has been implemented for evaluation of time and cost of different
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random task graph or DAG of different graph size. Also, the algorithm has been executed in a grid of heterogeneous cluster of different sizes with four resources in each cluster. The primary work is to find the primary scheduling i.e., total execution time and total cost with little or no changes in primary scheduling. We have proposed an efficient scheduling algorithm, which optimize the makespan and economic cost of the schedule and minimize the requirements of processors. The algorithm has been implemented to schedule different random DAGs onto different grids of heterogeneous clusters of various sizes.

References

- Rajkumar Buyya, David Abramson, and Srikumar Venugopal, The Grid Economy, Special Issue on Grid Computing&quoting, Proceedings of the IEEE, Manish Parashar and Craig
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- Q. Huang, N. Xiao, and B. Liu, ?Grid Load Forecasting Based on Least Squares

**Index Terms**

Computer Science  Distributed Computing

**Keywords**

Dag Grid Makespan Workflow