Abstract

Grid computing provides the means of using and sharing heterogeneous resources that are geographically distributed to solve complex scientific or technical problems. Task scheduling is critical to achieving high performance on grid computing environment. The objective of the scheduling process is to map each task with specific requirements to a capable machine in order to minimize the makespan. Task scheduling is shown to be NP-complete problem, which can be solved using heuristic algorithms. Several heuristic algorithms have been proposed in the literature, and they are either not efficient or complex. In this paper, we are proposing a Multi Objectives heuristic Algorithm to minimize the makespan and flow time and to maximize the resource utilization with a low computational complexity.

References

Multi Objectives heuristic Algorithm for Grid Computing

- R. F. Freund, and M. Ghefrity, \textquotedblright;Scheduling Resources in Multi-user Heterogeneous Computing Environment with Smart Net\textquotedblright;; In Proceedings of the 7th IEEE HCW, 1998.

Index Terms

Computer Science Distributed Systems
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Grid Computing  Scheduling  Makespan  Flow Time