Abstract

A Distributed Computing System (DCS) is a combination of application and system programs that exchanges data across a number of independent terminals connected by a communication network. Cost optimization in DCS can be achieve by optimize the performance of DCS. In task allocation two types of approaches are available and these are dynamic and static. Dynamic approach of task allocation is much better as compare to static, since it makes the best use of available computational resources in DCS. Task allocation problem can be describe as number of tasks are required to execute on number of processors where number of tasks (m) is always greater than number of processors (n) (m>n). This research offers a cost optimization algorithm with dynamic re-allocation of tasks to allocate the number of tasks on number of processors in DCS and their execution completes in k number of phases. Proposed algorithm is tested in MATLAB environment and it is noticed that obtained results are better as compared to past algorithms. Cost optimization dynamic model present in this research is helpful in performance optimization of DCS and also reduce the cost of task allocation in DCS.
Cost Optimization of Distributed Computing System with Dynamic Re-Allocation

References

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