Abstract

Computational grid is an emerging trend in the area that allows the management of heterogeneous, geographically distributed and dynamically available resources in an effective way by extending the boundaries of what is being perceived as distributed computing. The most crucial problem in any grid environment is job scheduling which is observed to be an NP-Complete problem. Thus there is no possible best solution for scheduling the repeatedly submitted jobs in particular to the jobs that have long duration for execution, I/O intensive and resource requirements which vary at different times during the task execution. It is also essential to analyze the variation in resource requirements based on the past history of the same job executed earlier and use the gathered information in the decision making process. Hence, in this paper we propose and develop a novel approach for job scheduling based on past history.

References

- SunGridEngine: http://www.sun.com/software/Gridware/

Index Terms

Computer Science, Grid Computing
Keywords
Scheduling  I/o Intensive  Prediction  Np-complete