Process Resource Allocation in Grid Computing using Priority Scheduler

© 2012 by IJCA Journal
Volume 46 - Number 11
Year of Publication: 2012

Authors:
Mayank Kumar Maheshwari
Abhay Bansal

Abstract

Grid Computing has emerged as an important new field focusing on resource sharing. One of the most challenging issues in Grid Computing is efficient scheduling of tasks. Load Balancing is a technique to improve parallelism, utilization of resources increasing throughput managing and to reduce response time through proper distribution of the tasks. Generally there are three type of phases related to Load balancing i.e. Information Collection, Decision Making, Data Migration. In this paper, we propose a Load balancing algorithm for optimal scheduling. It scheduled the task by minimum completion time and rescheduled by waiting time of each task to obtain load balance. This algorithm scheme tries to provide optimal solution so that it reduces the execution time and expected price for the execution of all the jobs in the grid system is minimized. Load balancing algorithms is of two types, static and dynamic. Our algorithms in this paper based on dynamic nature.

References

- Dr. K. Vivekanandan, D. Ramyachitra, Professor, BSMED, Bharathiar University, Coimbatore, Tamil Nadu, India A Study on Scheduling in Grid Environment, Feb 2011
Process Resource Allocation in Grid Computing using Priority Scheduler

- Gregor von laszewaski, Ian Foster, Argonne National Laboratory, Designing Grid Based Problem solving Environments.
- Junwei Cao, Daniel P. Spooner, Stephen A. Jarvis, and Graham R. Nudd, Grid Load Balancing Using Intelligent Agents.
- B. Yagoubi, Department of Computer Science, Faculty of Sciences, University of Oran and Y. Slimani, Department of Computer Science, Faculty of Sciences Tunis, Task Load Balancing Strategy for Grid Computing.
- Gregor von laszewaski, Ian Foster, Argonne National Laboratory, Designing Grid Based Problem solving Environments.
- Junwei Cao, Daniel P. Spooner, Stephen A. Jarvis, and Graham R. Nudd, Grid Load Balancing Using Intelligent Agents.
- Nakai J. Pricing computing resources: Reading between the lines and beyond.
- Hai Zhuge, Xiaoping Sun, Jie Liu, Erlin Yao, and XueChen, A Scalable P2P Platform for the Knowledge Grid
- Klaus Krauter, Rajkumar Buyya, and Muthucumaru Maheswaran, a Taxonomy and Survey of Grid Resource Management Systems

Index Terms

Computer Science Parallel Computing

Keywords
