Comparative Analysis of Job grouping based Scheduling Strategies in Grid Computing

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Abstract

Grid computing is a form of distributed computing that provides a platform for executing large-scale resource intensive applications on a number of heterogeneous computing systems across multiple administrative domains. Therefore, Grid platforms enable sharing, exchange, discovery, selection, and aggregation of distributed heterogeneous resources such as computers, databases and visualization devices. Job and resource scheduling is one of the key research area in grid computing. In a grid computing environment, a scheduler is responsible for selecting the best suitable computing resources in the grid for processing jobs to achieve high system throughput. Further, grouping the fine grained jobs according to the processing capability of available resources results in better throughput, resource utilization and low communication time. Motivation of this study is to encourage and help the amateur researcher in the field of grid computing, so that they can understand easily the concept of scheduling, job grouping and can contribute in developing more efficient and practical scheduling algorithm. In this paper, we compared three job grouping based scheduling algorithms that will benefit interested researchers to carry out further work in this thrust area of research.

References

- Foster and C. Kesselman, "The Grid: Blueprint for a Future Computing
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Index Terms

Computer Science

Distributed Computing
Keywords
Grid Computing  Job Scheduling  Job Grouping