A Modified Genetic Algorithm for Process Scheduling in Distributed System

Abstract

The problem of process scheduling in distributed system is one of the important and challenging area of research in computer engineering. Scheduling in distributed operating system has an important role in overall system performance. Process scheduling in distributed system can be defined as allocating processes to processor so that total execution time will be minimized, utilization of processors will be maximized and load balancing will be maximized. The scheduling in distributed system is known as NP-Complete problem. Genetic algorithm is one of the widely used techniques for constraint optimization. Genetic algorithm is basically search algorithm based on natural selection and natural genetics. In this paper using the power of genetic algorithms. We solve this problem considering load balancing efficiently. We evaluate the performance and efficiency of the proposed algorithm using simulation result.
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- Task graph downloaded from site http://www.kasahara.elec.waseda.ac.jp/schedule

Index Terms

Computer Science
Artificial Intelligence

Key words
Distributed system
DAG
Genetic algorithm