Abstract

To make effective job placement policies for a volatile large scale heterogeneous system or in grid systems, scheduler must consider the job execution time. In most grid schedulers, execution time of job is to be known in the prior. The execution time given by user may not be more precise, execution time predictors are used in order to facilitate the dynamic scheduling. The prediction algorithms use analytical bench marking/ code profiling, historical data, and code analysis. The prediction algorithm should be nonclairvoyant in nature. This study reviews execution time prediction algorithms in a different perspective. This algorithm considers memory accessing, network performance, and fluctuation of competing CPU load and so on, as interference factors for prediction. Based on the understanding comprehensive analysis is made among them.

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Index Terms

Computer Science Distributed Computing

Keywords

Task Scheduling Historical Data Code Analysis Profiling Benchmarking.