HIGH COMPACTION COARSE GRAINED JOB SCHEDULING IN GRID COMPUTING

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ABSTRACT

Grid computing is the federation of computer resources from multiple administrative domains to reach a common goal. The Main focus is on Uniform high performance access to computer resources and on demand creation of powerful virtual computer. In this paper we have proposed High Compaction based Coarse-Grained Scheduling: - A coarse-grained algorithm which is well focused to the compaction degree of the resource keeping in mind the various constraints including processing capability (in MIPS), bandwidth (in Mb/s), and memory-size (in Mb) of the available resources. The proposed algorithm introduces job scheduling strategy which schedules jobs in well formed group. Groups are formed in such a way that it utilizes the available resource to maximum extend. In addition to ensure maximum compaction it also maintain balance between processing time and resource utilization. The experimental results obtained using GridSim simulation toolkit demonstrate that the proposed scheduling policy efficiently reduces the processing time of jobs in comparison to grouping based scheduling algorithms.

KEYWORDS: Grid Computing, Job Scheduling, GridSim, Gridlets