Optimizing Workflow Scheduling using Max-Min Algorithm in Cloud Environment

Authors:
Sandeep Singh Brar, Sanjeev Rao

Abstract

With the up rise of fourth paradigm, that is discovery of science over a prolonged period of time, scientific workflows commence to amend their status amongst innumerous science subject areas including physics, astronomy, biology, chemistry, earthquake science and many more. In Scientific workflows, a heavy volume of data processing is required and workflows with up to a few million tasks are not unusual. With the advent of Cloud Computing as a new model of service provisioning in distributed systems, a new direction comes in light for executing scientific applications such as Workflows by deploying resources of Cloud. The scheduling of millions of tasks of workflows, while processing with Cloud resources, in a most profitable manner i.e. minimum computation time is still an attractive research area. The existing scheduling algorithms are brushing off the individual dependent and independent tasks. In this research paper, Max- Min algorithm is implemented for scheduling of workflow tasks that is focalized on the consideration of dependent and independent tasks and process independent tasks in parallel that directly gives profit in minimizing computation time.
References


Index Terms

Computer Science        Algorithms
Keywords