

Mobile Agents-Based Framework for Dynamic Resource Allocation in Cloud Computing

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Abstract : Nowadays, cloud computing is becoming the more popular technology to various companies and consumers, which benefit from its increased efficiency, cost optimization, data security, unlimited storage capacity, etc. One of the biggest challenges of cloud computing is resource allocation. Its efficiency directly influences the performance of the whole cloud environment. Finding an effective method to address these critical issues and increase cloud performance was necessary. This paper proposes a mobile agents-based framework for dynamic resource allocation in cloud computing to minimize both the cost of using virtual machines and the makespan. Furthermore, its impact on the best response time and power consumption has been studied. The simulation showed that our method gave better results than here.

Keywords : cloud computing, multi-agent system, mobile agent, dynamic resource allocation, cost, makespan

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