

Responsive Resource Scheduling in Cloud Environment

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Cloud computing has driven the IT industry to the next level in its evolution. Many IT companies provide subscription-based access to different types of Computing resources in the form of Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS). Due to the rise of these services the cost of computation and application hosting has come down dramatically by several orders.

But still there are challenges and complexity involved in the development of reliable and scalable applications in the dynamically changing cloud environment. One of challenging issues is to have efficient scheduling systems for cloud computing. Cloud computing resources being distributed across large geographical area makes it difficult to forecast the dynamic change of cloud environment in real-time. The Scheduling in Cloud environment is complicated further by the various QoS constraints such as: Optimization goals, choosing a scheduling algorithm for the nature of the task, system performance and cost.

Most of the conventional resource allocation strategies are not suitable to handle the fast and dynamic nature of the Cloud Environment and may not satisfy the requirements of the clients. Therefore, this paper presents a new ResponsiveResource Scheduling framework which improves resource utilization as well as provides cost effective solution. The core idea is to choose different scheduling algorithms for different situations. The result will demonstrate the suitability of the proposed scheme that will increase throughput, reduce waiting time, reduction in missed process considerably and balances load among the physical machines in a Data centre.

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