Abstract

Execution of tasks in cloud environment warrants use of data stored on remote data servers. Even though the memory requirement of the user computer are reduced yet it is critical to maintain deadlines. This paper proposes Task scheduling based on Adaptive Cost for providing access to data for VMs (Virtual Machines) in such a way that the cost is not impacted. CBAS (Cost Based Adaptive Scheduling) utilizes the time taken for data access to decide on the data access path that is most cost effective. Time taken is computed through variance & mean time of network service and I/O request arrival rate. Task Priority is then assigned for removing the data access time for tasks. In the end, analysis of data access path and allocation is done on the basis of task priority. Task with low priority are allocated to low cost path while tasks that have high priority are assigned more expensive path to meet deadlines. Hence, CBAS achieves task scheduling efficiently. The results of the experiments related to CPU Utilization, bandwidth, communication costs, computational cost, and execution time prove CBAS perform better than current contemporary methodologies.
References


Index Terms

Computer Science

Distributed Systems
Keywords

Cloud computing