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(57) Abstract :
Present invention provides specially a method for the study and analyzes of optimal resource management strategies: a virtual machine migration perspective. The proposed technique is beneficial for cloud provider as well as cloud user for cost saving. To efficiently schedule jobs with highly diverse resource requirements along CPU, memory and bandwidth for job performance and resource utilization in a virtual machine based cloud environment, a novel energy efficient resource management model is proposed to handle the resource scheduling and for the minimization of the energy utilized by the cloud data centers for the computational work. A novel resource allocation mechanism is also proposed based on the optimization techniques. Also a novel dynamic virtual machine allocation model is proposed, to help dynamic virtual machine allocation and job rescheduling to improve the consolidation of resources to execute the jobs. Additionally a novel virtual machine migration technique is proposed based on the live migration for dynamic reallocation of resources by switching it with on/off conditions. The experimental results show that the proposed technique is better than the all other techniques for higher resource utilization and to reducing the energy consumption. Following invention is described in detail with the help of Figure 1 of sheet 1 showing system workflow for first objective and Figure 2 of sheet 2 showing system workflow for second objective.

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