Abstract

Our research focuses on improvised Particle Swarm Optimization Technique for workflow balancing in cloud (IPSO-WF). The suggested technique assigns a cost to each task based on the resource requirement, the algorithm takes the four linear VMs (Virtual Machines) into deliberation before assign the job to it. The swarm searches for the VM meeting the rate, the work is assigned to the selected VM and resources updated. Since resources are allotted and VM engaged with a work the rate must needed to updated which has been disregarded in most of the research work however the planned algorithm updates the resources and rate is calculated again and again every instance when the work is assigned giving it a more realistic costing.

The suggested work has been tested on 25, 50 and 75 VMs for L-ACO, B and BM. All the procedures perform best when more VMs are allotted as lesser VMs takes more resources resulting about loss of energy and time too. The acquired results shows that through all the systems are competitive but the suggested technique performs much better in the terms of time.
and energy.

References

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**Index Terms**

Computer Science  
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**Keywords**

Load balancing; Workflow; PSO; ACO