Abstract

Cloud computing has transformed the complete operation pattern of just not IT industries but also other sectors like Transportation, Metrological unit, Finances, education, agriculture, health care etc., The transformation is due to the enormous reliable services provided to these sectors at low cost. The Cloud model is able to do this because of the flexibility in providing services like the computing resource, storage or data managing and migration. These services are provided based on the user requirements, the user may opt for a public, private or a hybrid cloud.

Cloud based applications are fully deployed in cloud and all the supporting applications run in cloud. The performance of the computing model is influenced by the operation of the model. The computing model should always be available and reliable. Efficient operation depends on good scheduling and resource allocation techniques.

In this paper, a mathematical model to configure the required series of Virtual machines termed as Super Virtual machines (SVM) has been proposed. SVM is a combination of Virtual
machines (VMs) which comprises of Processor, Storage space and Bandwidth required for computation. The research contribution shows an increase in availability and reliability of resources to requesting jobs.

References

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Index Terms

Computer Science

Distributed Systems

Keywords

Super Virtual Machines, Availability, Reliability, Scheduling, Latency, Response time