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, healthcare 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

6. Wei-Zhe Zhang, Hu-Cheng Xie, and Ching-Hsien Hsu, Automatic Memory Control of Multiple Virtual Machines on a Consolidated Server, his article has been accepted for publication in a future issue of this journal, but has not been fully edited. Content may change prior to final publication. Citation information: DOI 10.1109/TCC.2014.2378794, IEEE Transactions on Cloud Computing
8. Wenxin Li, Heng Qi, Keqiu Li, Ivan Stojmenovic, and Julong Lan, “Joint Optimization of Bandwidth for Provider and Delay for User in Software Defined Data Centers”, IEEE TRANSACTIONS ON CLOUD COMPUTING, VOL. 5, NO. 2, APRIL-JUNE 2017
13. APPEDIX
14. Samples of SimulationS
15. //
Index Terms

Computer Science  Distributed Systems

Keywords

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