Abstract

The speciality of virtual desktop cloud computing is that user applications are executed in virtual
desktops on remote servers. Resource management and resource utilization are very much
significant in the area of virtual desktop cloud computing. Handling a large amount of clients in
most efficient manner is the main challenge in this field. This is because we have to ensure
maximum resource utilization along with user data confidentiality, customer satisfaction,
scalability, minimum SLA violation etc. Assigning too many users to one server may cause
overloaded condition and which will lead to customer dissatisfaction. Assigning too little load
will result in high investment cost. So we have taken in to consideration these two situations
also. Here the proposed Rule Based Resource Management (RBRM) scheme assures the
above mentioned parameters like minimum SLA violation. The concept of virtual desktop cloud
computing is extended to a hybrid cloud environment. This is because to make the private
cloud scalable. And priorities are assigned to user requests in order to maintain their
confidentiality. The results of the paper indicate that by applying this RBRM scheme to the
already existing overbooking mechanism will improve the performance of the system with
significant reduction in SLA violation.
A RBRM Approach for Virtual Desktop Cloud Computing

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- Jiang Dejun, Guillaume Pierre, Chi-Hung Chi, "Resource Provisioning of Web Applications in Heterogeneous Clouds".


- Christopher Clark, Keir Fraser, Steven Hand, Jacob Gorm Hansen, Eric July, Christian Limpach, Ian Pratt, Andrew Warfield, 2005, "Live Migration of Virtual Machines", 2nd Symposium on Networked Systems Design and Implementation (NSDI), May


- Nilabja Roy, Abhishek Dubey and Aniruddha Gokhale, "Efficient Autoscaling in the Cloud using Predictive Models for Workload Forecasting".


- Rajkumar Buyya, Rajiv Ranjan, Rodrigo N. Calheiros, "Modeling and Simulation of Scalable Cloud Computing Environments and the CloudSim Toolkit: Challenges and Opportunities".

- Feng Huang, 2006, "A Selective Approach to Bandwidth Overbooking".


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Index Terms

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Keywords

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