Abstract

Cloud computing is a general term for anything that involves delivering hosted services over the Internet. It is a construct that allows you to access applications that actually reside at a location other than your computer or other Internet-connected Device. Service Level Agreement (SLA) is a document that includes a description of the service, service level parameters, guarantees, and actions for all cases agreed. The SLA is very important as a control between consumer and provider for any violation for the agreement. In several cases cloud provides violate the level agreement with clients and provide the service at a less level than what has been agreed to. To tackle this problem this paper proposed SLA -based violation detection mechanism for resource allocation for cloud computing based on the number of allocated processors. To examine the proposed mechanism we conducted a simulation experiments using CloudSim simulator. The experiment has two scenarios, the first scenario the number of resources (virtual machine) is greater than the number of resources requested by the submitted jobs (cloudlet). The second scenario shows SLA violation as the number of processors provided by the cloud providers is
less than the requested number of processor by the jobs or cloudlet. Results revealed that the
proposed SLA mechanism has the ability to detect the violations for the SLA agreement.

References

1. C. Computing, "a practical Approach, Anthony T," Velte, Toby J. Velte, Robert Elsenpeter,
2. R. P. Padhy, "Load Balancing in cloud computing systems," National Institute of
Technology, Rourkela, 2011.
Computing Using Shortest Remaining Job First (SRJF)," International Journal of Computer
4. C. Déglise, L. S. Suggs, and P. Odermatt, "Short message service (SMS) applications for
disease prevention in developing countries," Journal of medical Internet research, vol. 14, p. e3,
2012.
2011, pp. 469-477.
7. J. UDAYAKUMAR, M. MANIKKAM, and A. ARUN, "CLOUD-SLA: Service Level
Agreement for Cloud Computing."
Sens, "Towards qos-oriented sla guarantees for online cloud services," in Cluster, Cloud and
9. A. Amato and S. Venticinque, "Multi-objective decision support for brokering of cloud sla," in
Advanced Information Networking and Applications Workshops (WAINA), 2013 27th
International Conference on, 2013, pp. 1241-1246.
10. L. Wu, S. K. Garg, and R. Buyya, "SLA-based resource allocation for software as a
service provider (SaaS) in cloud computing environments," in Cluster, Cloud and Grid
Availability Commitment and Penalty in Cloud SLA," in Computer Software and Applications

Index Terms

Computer Science Distributed Systems

Keywords

Cloud Computing; SLA; Violation