SLA Violation Detection Mechanism for Cloud Computing

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 133
Number 6
Year of Publication: 2016

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10.5120/ijca2016907483
{bibtex}2015907483.bib{/bibtex}

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


Index Terms

Computer Science Distributed Systems

Keywords

Cloud Computing; SLA; Violation