

A hierarchical self-X SLA for cloud computing

ABSTRACT

In cloud computing, service level agreement (SLA) is a mutual contract between service provider and consumer upon quality of service (QoS). Currently, there is no an effective relation among different SLAs while some of them affect each other. Moreover, different systems are employed to operate SLA based functions for instance SLA monitoring system, SLA based resource adapting system and etc. heterogeneous SLA based systems and lack of hierarchical relations have deducted the efficiency of SLA based systems. In this paper, the SLA structure is extended to support the hierarchical relation of SLAs in cloud computing. Additionally, a self-X ability is also proposed and added inside the SLA structure to supply the SLA based operations. A self-healing SLA is developed by extended SLA and the experiment results have presented its effectiveness

Keyword: Service level agreement; Cloud computing; Self-healing SLA; SLA monitoring; Hierarchical SLA