

## **Security framework of cloud data storage based on multi agent.**

### **ABSTRACT**

The purpose of this literature review is to provide the information about illustrating the usage of Multi-Agent System (MAS) techniques that can be beneficial in cloud computing platform to facilitate security of cloud data storage (CDS) among it. MAS are often distributed and agents have proactive and reactive features which are very useful for cloud data storage security (CDSS). The architecture of the system is formed from a set of agent's communities. This paper of literature review described on the theoretical concept and approach of a security framework as well as a MAS architecture that could be implemented in cloud platform in order to facilitate security of CDS, on how the MAS technology could be utilized in a cloud platform for serving the security that is developed by using a collaborative environment of Java Agent DEvelopment (JADE). In order to facilitate the huge amount of security, our MAS architecture offered eleven security attributes generated from four main security policies of correctness, integrity, confidentiality and availability of users' data in the cloud. This paper of literature review also describes an approach that allows us to build a security cloud platform using MAS architecture and this architecture tends to use specialized autonomous agents for specific security services and allows agents to interact to facilitate security of CDS.

**Keyword:** Cloud computing; Cloud data storage; Cloud service providers; Cloud data storage security; Java agent development and multi-agent system.