**A Trust-based Agent Learning Model for Service Composition in Mobile Cloud Computing Environments**

**ABSTRACT:**

Mobile cloud computing has the features of resource constraints, openness and uncertainty which leads to the high uncertainty on its Quality of Service (QoS) provision and serious security risks. Therefore, when faced with the complex service requirements, an efficient and reliable service composition approach is extremely important. In addition, preference learning is also a key factor to improve user experiences. In order to address them, this paper introduces a three-layered trustenabled service composition model for the mobile cloud computing systems. Based on fuzzy comprehensive evaluation method, we design a novel and integrated trust management model. Service brokers are equipped with a learning module enabling them to better analyze customers’ service preferences especially in cases when the details of a service request are not totally disclosed. Because traditional methods cannot totally reflect the autonomous collaboration between the mobile cloud entities, a prototype system based on the multi-agent platform JADE is implemented to evaluate the efficiency of the proposed strategies. The experimental results show that our approach improves the transaction success rate and user satisfaction.

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/UBUNTU.
* Implementation : NS2
* NS2 Version : 2.28
* Front End : OTCL (Object Oriented Tool Command  Language)
* Tool : Cygwin (To simulate in Windows OS)