



# Security of Mobile Agent Platform

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# Abstract

Mobile Agent technology is a new distributed computation paradigm. In the last ten years, the whole environment of computation experienced a rapid change. Network computing built a new field for the computer's applications. Because of the low ability and flexibility of the traditional model of C/S (client/server) and some other drawbacks, it cannot reach the requirement of complicated distributed system anymore. Especially in recent years, more and more mobile devices are involved in the Internet, meanwhile the individual needs from the users are becoming more and more stronger. No doubt, all the above reasons push a brand new computing model that is Mobile Agent System.

Mobile Agent System can create, transfer, interpret, execute and terminate Mobile Agents. At the same time, Mobile Agents are roaming between different Mobile Agent Platforms. The primary issue in the security of Mobile Agent Systems is to protect Mobile Agent Platform against malicious attacks. It includes the following parts: access control of local resources on Mobile Agent Platform, authentication, and enforcement of authorization policies for incoming Mobile Agents.

This master thesis project focuses on the Security of Mobile Agent Platform, especially about authorization part in the Access Control part. The main problem is how to build the enough stable and integrated authorization policies for the Mobile Agent Platform.