SELECTION OF MOBILE AGENT SYSTEMS BASED ON MOBILITY, COMMUNICATION AND SECURITY ASPECTS

by

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Abstract

The availability of numerous mobile agent systems with its own strengths and weaknesses poses a problem when deciding on a particular mobile agent system. In this dissertation, factors based on mobility, communication and security of the mobile agent systems are presented and used as a means to address this problem. To facilitate in the process of selection, a grouping scheme of the agent system was proposed. Based on this grouping scheme, mobile agent systems with common properties are grouped together and analyzed against the above-mentioned factors. In addition, an application was developed using the Aglet Software Development Toolkit to demonstrate certain features of agent mobility, communication and security.

Key Terms

Agent Communication Language, Agent Mobility, Agent Security, Computational environment, Data state, Distributed systems, Execution environment, KQML, Mobile agents, Mobile agent systems.
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