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### **Abstract**

Multiagent applications will appear more and more in open, heterogeneous, evolving and distributed environments, such as the Internet. In order to run in such environments, agents will need to adapt themselves to new platforms and protocols. We propose a model of agents that are able to run, communicate and move between different multiagent platforms. This model is based on a middleware between such agents and platforms. It has been implemented on a kind of agents called Guest which can be used the same way regardless of what kind of servers they run on, notably, through tools such as a graphical management tool or a server launcher. Also, we provide a mechanism based on plug-ins that allows modification of basic agent behaviors like manipulation of messages, control of migration, etc. Lastly, we propose two kinds of dynamic agent hierarchies based on plug-ins or middleware.

### **Keywords**

Mobile agents architectures, Agent tools, Interoperability, Adaptation, Hierarchy.