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Abstract

Adaptive agents provide a natural and clean way to deal with heterogeneous, distributed and unpredictably evolving environments, such as Internet. In this paper, we present a model of agents that are able to adapt themselves to their environment by several ways. Using a middleware approach, our agents, called *Guest*, can run, communicate and move between different multiagent platforms, which are *a priori* incompatible. *Guest* agents can also change dynamically their capabilities, based on the concept of plug-ins. To build multiagent applications, *Guest* agents are able to organize themselves into centralized or distributed hierarchies. These agents can even change automatically their organizational models to adapt to their evolving environment, using metamodeling technique.