Abstract

In recent years, wireless communication systems have experienced tremendous growth, especially in broadcasting, television or handheld computers to the new generation with Web access (UMTS, GPRS). Meanwhile, the techniques of radio are now crucial to a growing number of services. As a result, the size and complexity of applications increases. Current technology can not protect us from design problems. That is why we need a high-level modeling, which we will analyze the organization between the different elements of the system and the interactions between them. The interest of multi-agent systems stems from the collective behavior produced by the interaction of several autonomous entities called agents and flexible, these interactions that revolve around cooperation, competition and coexistence between these agents. However, techniques from the field, focus more on the expression of inter-agents. The expression of the mobility point of view of distributed systems is not described. A property once acquired, will allow the process to choose for themselves to move on the sites of a network to work locally on the resources and make their exchange interactions. Why we propose in this paper a formalization that uses a process algebra, which is the π-calculus to develop self-adaptive systems that can respond to the form of the problem.