Abstract

The Foundational features of multi-agent systems are communication and interaction with other agents. For achieving these features agents have to transfer messages in predefined format and semantics. The communication between the agents takes place with ACL (Agent Communication Language). ACL is a proposed standard language for communication of agents such as KQML (Knowledge Query Manipulation Language), and FIPA (Foundation for Intelligent Physical Agent). FIPA-ACL defines different performatives for communication between agents. These performatives are generic and it becomes difficult to use them for a specific domain like e-commerce. These performatives (FIPA-ACL) do not define the exact meaning of communication for e-commerce agents. In this work we have introduced new performatives specifically for e-commerce domain. Our designed performatives are based entirely on FIPA-ACL so that they can still support communication within diverse and complex agent platforms.This research can be helpful in modeling e-commerce negotiation protocol applications using the paradigm of multi-agent systems to ensure their correct functioning.We also performed formal modeling of these performatives via BNF. The primary objective of our work is to provide the negotiation facility to agents, working in a complex scenario, in a precise way. This can reduce the number of negotiation messages, time consumption and network overhead on the platform.