

FIPA: a standard for agent interoperability

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The Foundation for Intelligent Physical Agents (FIPA) is an international non-profit association of companies and organisations sharing the effort to produce specifications for generic agent technologies.

FIPA does not just promote a technology for a single application domain but a set of general technologies for different application areas that developers can integrate to make complex systems with a high degree of interoperability. FIPA standardisation process tries to define a set of normative rules that allow a society of agents to exist, operate and be managed. First of all their specifications describe the reference model of an agent platform. They identify the roles of some key agents necessary for managing the platform, and describe the agent management content language and ontology. Of course, the specifications also define the Agent Communication Language (ACL). Agent communication is based on message passing, where agents communicate by sending individual messages to each other. The FIPA ACL is a standard message language and sets out the encoding, semantics and pragmatics of the messages. It does not set out a specific mechanism for the transportation of messages. Since different agents might run on different platforms and use different networking technologies, the messages are encoded in a textual form. It is assumed that the agent has some means of transmitting this textual form. The remaining parts of the FIPA specifications deal with other aspects, in particular with agent-software integration, agent mobility, agent security, ontology service, and human-agent communication. However they are not described here because they have not yet been considered in the JADE implementation.

This talk has the goal to give a brief description of FIPA and its standardisation effort together with some notes about its future directions.