

Agents as web service providers: Single agents or MAS? *

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Abstract

Agents are good tools for providing web services. They are usually either single agents, where one agent provides one or multiple services, or multiple individual agents that are discovered using e.g. UDDI. But then also a singular recipient is determined for fulfilling actual requests. This is well suited for smaller services, which are provided by a single, but perhaps complex, agent by itself. However, more difficult tasks will usually be solved by a system of agents. There in some cases an initial single point of contact will be useful, preventing exposure of individual service agents. Later on communication takes place with the specific agents directly, avoiding the bottleneck of a single "gateway" agent. Some guidelines when a single agent view is desirable and when exposing the system of agents is better suited are presented with the combination of both aspects through a gateway agent. Currently the latter approach is possible only through the application requesting the service itself. In this paper an extension to SOAP is presented allowing redirection of web service requests to another recipient by the (initial) service provider. An application is presented where redirection is used to distribute tasks to individual agents.

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