A three-level specification approach for an environment of software agents and Web services
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Abstract
This paper presents an approach for the specification of a software agent-based and Web service-oriented environment. A software agent is an autonomous entity that acts on user’s behalf. Whereas a Web service is an accessible application that other applications and humans can discover and trigger. Users in collaboration with their agents compose Web services into high-level business processes denoted by composite services. The participation of Web services in a composite service is based on several selection criteria such as the execution cost of a Web service and the location of the resources on which a Web service will be performed. Prior to that selection, the specification approach puts forwards three levels: intrinsic, organizational/functional, and behavior. Besides the specification approach, the composition of Web services is illustrated in this paper with service chart diagrams.

Keywords: Web services; Software agents; Specification; Composition; Location