

Stepwise Refinable Service Descriptions: Adapting DAML-S to Staged Service Trading*

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Abstract. In order for service-oriented architectures to become successful, powerful mechanisms are needed that allow service requestors to find service offerers that are able to provide the services they need. Typically, this service trading needs to be executed in several stages as the offer descriptions are not complete in most cases and different parameters have to be supplemented by the service requestor and offerer alternately. Unfortunately, existing service description languages (like DAML-S) treat service discovery as a one shot activity rather than as a process and accordingly do not support this stepwise refinement. Therefore, in this paper, we introduce the concept of partially instantiated service descriptions containing different types of variables which are instantiated successively, thereby mirroring the progress in a trading process. Moreover, we present possibilities how to integrate these concepts into DAML-S syntactically.