Abstract

With the increasing number of Web services available on the web, looking for a particular service has become very difficult, especially with the evolution of the clients’ needs. In this context, we have previously proposed the CBR-based system for semantic Web service discovery (CBR4WSD) which benefits from the advantages of CBR to address the limitations of existing approaches in terms of efficiency of the Web service selection. This paper is devoted to the study of the Retrieval phase, which is the core of our CBR4WSD system. First, we expose the stage of Retrieval preparation which is performed in the Offline discovery process. Then, we present the discoverability checking-rules that help our system to detect the feasibility of the discovery process for a given query. We also present our Retrieval algorithm that calculates the functional and the non-functional similarities before generating the global similarity measure.

References

1. I. El Bitar, I., Belaoudha, F.Z., Roudies, O.: Semantic Web Service Discovery
Case-based Matching Algorithm for Dynamic Web Service Discovery


5. T. Osman, D. Thakker, D. Al-Dabass; “Semantic-Driven Matchmaking of Web Services Using Case-Based Reasoning”. School of Computing and Informatics, Nottingham Trent University, Nottingham, UK, Naval Academy of France, Ecole Navale, BP 600, 29240 Brest, France, 2006


14. Fuchs, B. : Représentation des connaissances pour le raisonnement à partir de cas, le système ROCADE, Thèse de doctorat, Université Jean Monnet de Saint-Etienne, France.(1997)

15. Web Services Policy 1.2 - Framework (WS-Policy) :
   http://www.w3.org/Submission/WS-Policy/

16. Web Services Policy 1.5 – Attachment W3C Recommendation 04 September 2007:
    http://www.w3.org/TR/ws-policy-attach/#ServicePolicySubject

Case-based Matching Algorithm for Dynamic Web Service Discovery


**Index Terms**

Computer Science  
Algorithms  

**Keywords**

Semantic Web Service Discovery, Matchmaking, CBR, Formalization, Retrieval, Functional properties, Non-Functional properties