

Ontology-based semantic web services framework for knowledge management system

ABSTRACT

The latest Semantic Web developments and insights in knowledge management challenge the new era of semantic-based knowledge-management systems, where lies the new possibilities that Semantic Web affords for improved knowledge management. Connectivity and interoperability of knowledge management systems is the key to the vision of the future. We need a comprehensive framework that addresses main issues related to distributed Knowledge Management. Semantic Web Services (SWS) is the next major generation of the Web in which e-services and business communication become more knowledge-based. It proposes to extend the traditional Web Services technologies with its key enabling technologies of ontologies and semantics; to solve the problem of heterogeneity and interoperability of data across applications. This makes it possible to select, integrate and invoke services dynamically, which enable services to adapt themselves to changes without human intervention. The main purpose of this paper is to present the relevance of SWS technologies to KMS. Further, we discuss about the two major initiatives in SWS research. Later, we will propose ontology based semantic web services framework for KMS. Our focus is in the web service provider layer where we will introduce the three main components; knowledge manager, web service manager and ontology mapping manager.