An Ontology for the Quality Attributes of web services

Abstract

Web Services are an implementation of Service Oriented Architecture. Web Services applications are built by integration of many loosely coupled heterogeneous Services. Unfortunately Web Services still face many problems that are limiting their growth. A cause of these problems is the lack of metadata about the quality attributes of Web Services. This paper proposes a novel ontology that describes a model of the consumer-oriented Web Services’ quality attributes. The ontology is based on previous quality models which have been refined and modified specifically to address the quality issues as they relate to the consumer of Web Services. This ontology will also provide a shared understanding about the quality attributes of Web Services among the consumers and providers. Also an analysis will describe how each of the quality attributes in the previous model can be evaluated using different types of test cases.

Keywords: Web Services, Quality Model, Testing, Semantic Web, Ontology