Verity: A QoS Metric for Selecting Web Services and Providers

Sravanthi Kalepu, Shonali Krishnaswamy, Seng Wai Loke

School of Computer Science and Software Engineering, Monash University, Australia sravanthihere@hotmail.com, {Seng.Loke, Shonali.Krishnaswamy}@infotech.monash.edu.au

Abstract

With the proliferation of web services, quality of service serves as a benchmark to differentiate the services and their providers. As of today, a wide spectrum of attributes have been identified to account for the quality of a service like availability, reliability, servability, performance, reputation and so on. Reputation has been measured as an average user rating and we argue that the user perception alone is not sufficient to indicate the reputation. It is necessary to measure how trustworthy the provider has been in complying with the agreed levels in the SLA. To quantify the consistency in compliance levels, we introduce a new QoS attribute termed verity and propose an architecture to quantify it. We argue that verity should be taken into account for a quality driven selection and composition of web services. Reputation, when expressed as a vector of user rating, compliance and verity is a more intuitive indicator of the provider's trustworthiness.