

Managing QoS through Prioritization in Web Services

Amit Sharma Hemant Adarkar Shubhashis Sengupta

Software Concept Laboratory

Infosys Technologies Limited

Electronics City, Hosur Road

Bangalore 560100, India

Tel: 91 80 852 0261

Fax: 91 80 852 0740

{[amit_sharma04](mailto:amit_sharma04@infosys.com); [shubhashis_sengupta](mailto:shubhashis_sengupta@infosys.com)} @infosys.com, hemant@adarkar.com

Abstract

Most Web services management platforms cover two aspects related to quality of service: monitoring and reporting of various system performance metrics; and enhancing performance by increasing throughput, assuring reliability and failover etc. However, proactive management of services through differentiated quality has not been addressed in an integrated manner. This paper deals with the concept of managed QoS for Web Services, and describes a scheme for providing service differentiation through static and dynamic (real-time) prioritization of requests. Building on the concept of “Smartware”, a Web services management framework co-introduced by one of the authors, we present the architecture of the system, as well as representative data showing a prioritization case. We maintain that such a proactive management of QoS can be very valuable for future Web services management platforms.