

# **A Generalized Web Service Response Time Metric to Support Collaborative and Corroborative Web Service Monitoring**

Makitla I  
Mtsweni J

## **Abstract**

In this paper, we describe the development of a generalized metric for computing response time of a web service. Such a generalized metric would help to develop consensus with regards to the meanings of contracted Quality of Service (QoS) parameters; this also avoids the confusion that may arise when the same QoS parameter is understood differently by both the service provider and the consumer (e.g. response time versus execution time). Without a generalized metric for response time, contemporary monitoring approaches employ measures such as incentivizing the service consumers to honestly report their perceived service quality. Other measures involve using a dedicated monitoring service to observe the service execution and enforce the contracted QoS. This is a costly duplication of infrastructure. Having a generalized metric for each QoS parameter eliminates the need for incentive schemes or costly dedicated monitoring infrastructure.