Standard Monitor Design for SLA Parameters in SOA

Abstract

The current trend in modeling and designing IT systems is by using service-oriented approach that follows a new paradigm called Service-oriented Architecture. SOA is a new paradigm that manages the execution of the service’s instance which is not fully under the control of the client or service requestor but under the third party or provider. Service-level Agreement as means of specifying measurement parameters for performance (QoS), became extremely an important aspect in SOA framework due to the nature of cross-organizational services (i.e. outsourced email service). This is can be seen through standard SLA languages have been emerging recently to formalize SLA in order to become a machine-readable SLA instead of classical telecommunication’s SLA that uses natural languages. WSLA is an XML-based language that used to create machine-readable SLAs. However, there is still a gap on designing monitors in standard and generally standard way of doing instrumentation process. This paper proposes standard vocabulary for monitor design helps communicate the problem and encourage automation. A strong relationship has been defined between SEI 6-element Framework and modern SLA languages like WSLA. The result of comparison between the two metamodels has presented which is a contribution to monitor design.
- SWEBOK2004 (downloaded from www.swebok.or).
- B. Antonia, Guglielmo A. De, F. Lars, P. Andrea, "Model-Based Generation of Testbeds for Web Services, Institute for Computing and Information Sciences"; (ICIS), Radboud University Nijmegen – The Netherlands@cs. ru. nl, Department of Mathematics and Computer Science University of Camerino – Italy, andrea.polini@unicam.it.

**Index Terms**

Computer Science  
Software Engineering
Keywords
Soa  Sla  Performance  Sei6  Wsla