

IEEE CSMR 07- Research Agenda for Service-Oriented Architecture Maintenance

<http://www.sei.cmu.edu/isis/workshops/iw-soam-2007/index.htm>

Amsterdam, 20th March 2007

Summary Description

Background

This session is a workshop for researchers interested in studying how service-oriented architectures should be maintained and evolved over time. It is for sure that such enterprise wide infrastructures will not remain static. They will have to evolve to survive. Their evolution will be driven by the ever emerging organization and the rapidly changing technology with a previously unachievable level of interoperability among distributed systems and extreme agility within business practices. To cope with this change an unprecedented research effort is required to establish standards and frameworks within which this change can take place. Several international organizations are already participating in a world wide effort to bring this about, among them the W3C, OASIS, The Open Group, and the European ATHENA project. However, more research is still required. Therefore researchers of the world are called to unite in meeting this unprecedented IT challenge. Primary topics of the workshop will be:

- modeling dynamic configurations of large scale systems
- novel frameworks and platform-independent architectural styles
- transaction management techniques for large scale distributed systems
- integration, system and regression testing in loosely coupled environments
- composition of services at the business process level
- techniques and frameworks to manage the evolution of systems of systems
- dynamic composition of services at runtime.

The goal of the workshop is to bring together SOA researchers from both the technical and the business side to present their latest research results and to discuss how they can work together to set up an agenda. There needs to be a concerted effort to develop a long-term community wide research agenda for maintaining and evolving SOAs. To this end, the organizers of the workshop will present a draft version of their proposed agenda as a basis of discussion with the other contributors, who are expected to present short papers on their own views of this subject. The discussion should serve to identify open research issues and to obtain feedback from both researchers and practitioners of SOA. The result of the workshop will be a paper outlining the direction for future research on this pressing issue.

Programme

- Kostas Kontogiannis, Grace A. Lewis, Dennis B. Smith: The Landscape of Service-Oriented Systems: A Research Perspective for Maintenance and Reengineering
- Andreas Winter, Jörg Ziemann: Model-based Migration to Service-oriented Architectures – A Project Outline
- Mira Kajko-Mattson, Grace A. Lewis, Dennis B. Smith: Roles for Maintenance and Evaluation of SOA-Based Systems
- Harry M. Sneed: Migrating to Web Services – A Research Framework

Special session organisers

Session Chairs: Dennis Smith, Grace Lewis (Software Engineering Institute, Pittsburgh, PA), Kostas Kontogiannis (National Technical University of Athens (NTUA), Greece)