Service Compositions: From Models to Self-Management

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ABSTRACT:
The talk and demonstrations will illustrate a rigorous approach to the engineering of services for service-oriented architectures and in particular, web service compositions. We use formal model checking techniques to cover aspects of architecture, orchestration, choreography and deployment configurations for service compositions. A demonstration will illustrate our techniques using an Eclipse based tool, known as WS-Engineer. WS-Engineer is based upon the Labelled Transition System Analyser (LTSA) and provides mechanisms to assist engineers in developing and analyzing service compositions. The tool has also been adopted as part of academic courses in the teaching aspects of a services science. The talk is based on work in London Software Systems a grouping that includes academics at Imperial College London (the speaker, Jeff Magee, Jeff Kramer and Sebastian Uchitel) and at University College London (Wolfgang Emmerich, Anthony Finkelstein and David Rosenblum).

PROFILE:
Howard Foster is currently a Research Fellow with the Department of Computing, Imperial College London. His research interests include services, compositions, choreography and model-based verification and validation techniques. He is also actively working in the area of software self-management and behavioural synthesis of software components. He obtained his PhD in 2006 at Imperial College London and has over 10 years industrial experience as an IT consultant for leading Business and IT Professional Service organizations.