Hybrid Web Service Composition: Business Processes Meet Business Rules

Anis Charfi, Mira Mezini
Darmstadt University of Technology
D-64289 Darmstadt, Germany
{charfi,mezini}@informatik.tu-darmstadt.de

ABSTRACT

Over the last few years several process-based web service composition languages have emerged, such as BPEL4WS and BPML. These languages define the composition on the basis of a process that specifies the control and data flow among the services to be composed. In this approach, the whole business logic underlying the composition including business policies and constraints is coded as a monolithic block. As a result, business rules are hard to change without affecting the core composition logic.

In this paper, we propose a hybrid composition approach: The composition logic is broken down into a core part (the process) and several well-modularized business rules that exist and evolve independently. We also discuss two alternative technologies for implementing business rules in encapsulated units, using aspects and a rule-based engine. Our approach allows for a more modular and flexible web service composition.