Using Goal Diagram and Business Process Modeling to facilitate the identification of Domain Specific Services

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 175

Number 7

Year of Publication: 2017

Authors:

Fernanda Aparecida Rocha Da Silva

10.5120/ijca2017915597

Abstract

Background: A promise of SOA is to make business processes be quickly adapted to organizations dynamic through flexible software. For this, it is essential to have a support for services identification in order to meet the business goals. However, many available services found on the web environment are too specific and can hardly be reused in different applications. This happens because there is a lack of systematic approaches to support generic services identification in a systematic way. Objective: To present a strategy for identifying generic services that support business processes. The identification is supported by Goal Diagrams and Business Process Models and is composed by a set of guidelines which assist the domain engineer in extracting the services. The identified services are generic enough to be reused in similar applications of a specific domain. Methodology: To elaborate the proposed strategy some domain-specific business processes were analyzed, aiming at extracting key tasks and turning them into generic web services. This analysis was supported by an extended version of goal diagrams (GTR) and conventional BPM models. Results: As a proof-of-concept we applied the strategy for identifying services in the planning processes domain and we
Using Goal Diagram and Business Process Modeling to facilitate the identification of Domain Specific Services
devolved a real e-gov web portal based on the identified services. The web portal was used successfully by two different schools for elaborating their planning processes. Conclusion: We claim that the strategy is generic and can be applied to other business processes providing software suitability to the organization dynamics. In addition, it can be potentially reused with services in different instances of the same business process.

References


**Index Terms**

Computer Science

Information Sciences

**Keywords**

Service-Oriented Architecture, Business Process Management, Goal-Oriented Requirements Engineering