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Dynamic Software Product Lines for Customer Centric Context Aware Business Process Management

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Abstract: In the new digital marketplace, organizations are striving for a proactive position by leveraging the great potential of disruptive technologies to seize the full opportunity of the digital revolution in order to reshape their customer value propositions. New technologies such as big data analytics, which provide prediction of future events based on real-time information, are being integrated into BPM which urges the need for additional core values like capabilities for dynamic adaptation, autonomic behavior, runtime reconfiguration and post-deployment activities to manage unforeseen scenarios at runtime in a situated and changeable context. Dynamic Software Product Lines (DSPL) is an emerging paradigm that supports these runtime variability mechanisms. However, few works exploiting DSPLs principles and techniques in the BPM domain have been proposed so far. In this paper, we propose a conceptual approach DynPL4CBPM, which integrates DSPLs concepts along with the entire related dynamic properties, to the whole BPM lifecycle in order to dynamically adapt business processes according to different context conditions in an individual environment.

Keywords: adaptive processes, context aware business process management, customer centric business process management, dynamic software product lines

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