

Engineering Service-Based Dynamic Software Product Lines

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Abstract. Service-oriented product lines (SOPLs) represent a class of Dynamic Software Product Lines (DSPLs) that are built on services and service-oriented architecture. SOPLs present a number of software engineering challenges. These types of system must be highly self-adaptive, able to dynamically reconfigure their behavior to respond to changes in their environment and to coordinate with other services that may be in the vicinity. Secondly, SOPLs should be able to evolve dynamically over time. Thirdly, it is important to shorten their time-to-market by systematically reusing core assets. In this talk, I will present the concepts of DSPLs and SOPLs and proposes a solution that combines feature-oriented analysis with a QoS-aware service-oriented framework to provide a self-managing SOPL.