

# Self-adaptation in service-oriented systems

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**Abstract.** Service-based applications are able to offer complex and flexible functionalities in widely distributed environments by composing different types of services. These applications have to be adaptable to unforeseen changes in the functionality offered by component services and to their unavailability or decreasing performances. Furthermore, when applications are made available to a high number of potential users, they should also be able to dynamically adapt to the current context of use as well as to specific requirements and needs of the specific users. In order to address these issues, mechanisms that enable adaptation should be introduced in the life-cycle of applications, both in the design and in the runtime phases. In this talk I'll go through the life-cycle of a service-based application highlighting those activities that are needed to support adaptation and I'll present a specific approach to deal with this aspect.