Service-Based Application Adaptation Strategies: A Survey

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Abstract : Service Oriented Architecture (SOA) allows modeling of dynamic interaction between incongruous providers, which enables governing the development of complex applications. However, implementation of SOA comes with some challenges, including its adaptability and robustness. Dynamism is inherent to the nature of service-based applications and of their running environment. These factors lead to necessity for dynamic adaptation. In this paper, we try to describe basics and main structure of SOA adaptation process with a conceptual view to this issue. In this survey, we will review the relevant adaptation approaches. This paper allows studying how different approaches deal with service oriented architecture adaptation life-cycle and provides basic guidelines for their analysis, evaluation and comparison.