Using Performance Models to Support Load Testing in a Large SOA Environment

Abstract:
Load testing in large service-oriented architecture (SOA) environments is especially challenging when services are under the control of different teams. It gets even more difficult if services need to be scaled before a load test starts. It is thus important to estimate workloads for services involved in a load test. Service workloads can be specified by the amount of service operation invocations distributed over time. We propose the use of performance models to derive this information for SOA-based applications before executing load tests. In a first step, we use these models to select usage scenarios. Afterwards, these models are transformed in a way that each scenario can be simulated separately from each other. These simulations can predict service workloads for selected usage scenarios and different user counts.

Intellectual Contribution:
Discipline-based Research

Kongress-/Buchtitel:
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