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# Convolution of Complex Process Models and Ratios

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**Convolution of Complex Process Models and Ratios***Gunnar Dietz<sup>1</sup>, Martin Jührisch<sup>2</sup>, Katrina Leyking<sup>3</sup>*

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The key to enhance the service level of a company or a university is to identify the needs and adapt the service portfolio to the requirements. It is a difference of what could be offered as services and what is really offered. Especially service-oriented architectures (SOA) offer a modern approach to create a service “landscape” that can be easily adapted and opens the possibility to reuse a service in several scenarios. The management of these architectures however is not trivial and implies a need for mapping requirements to services that are already implemented, need to be implemented, or whose implementation should be altered. There are many model-based approaches. All of these lead to the question how to transform requirement models to service models. In this article we propose an approach that offers a semi-automated way of identifying service candidates based on numeric ratios, which can be derived from business process models. The question arises how to generate ratios that should only depend on the requirements itself, not on the way how they are modeled. An answer to that question means to generate ratios that can be used even in distributed modeling projects, where models are created with different levels of detail, different languages, different points of view, etc.