

Business Processes

Optimum Support for Business Processes Using SOA

Service-oriented architectures are booming once again. The erstwhile hype topic has grown to become a thing of project reality.

SOA is not merely a technical solution for application consolidation. Infrastructure, business process modeling and/or business process management (BPM), domain languages (DSL) and model-driven software development/model-driven architecture (MDS/MDA) should all be taken into consideration when discussing SOA. With M³SOA, the methodology for model-driven development of SOA applications, MID can help you meet the challenges you face in the world of SOA.

SOA – Old Wine in New Skins?

Even though SOA uses several concepts of yesteryear (e.g. Enterprise Application Integration), its approach is more radical than ever before. The aim is to master large, heterogeneous and uncoupled systems by using secure and standardized components; these components can be combined and use standardized protocols and methods to support or even automate business processes. And to top it all off, this should also be done beyond the boundaries of the individual enterprise and at a manufacturer-neutral level! Business processes need to be analyzed, systematized and standardized so that they can be supported effectively.

Business Processes are Taking a Front Row Seat

“A business process is made up of activities linked by relationships that transcend functional and organizational boundaries; these activities render the service required by customers and realize derived targets from the strategy.”

(translation of abstract from Schmelzer/Sesselmann "Business Process Management in Practice")

If you take this definition of a business process seriously and your aim is to use SOA to optimally support business processes then the questions arise: How can SOA achieve this? What are the prerequisites?

Business Process Models as Basis for SOA

Business processes need to be published so that everyone within the company knows how they are carried out;

normally the best way to do this is to use a business process model. M³SOA can be used with Innovator Business for creating business processes. All processes in business process modeling are documented with the necessary resources, data and resulting products. Business Process Management (BPM) also uses models; these are normally used as the basis for optimizing the enterprise's overall performance. This means that BPM and SOA are in league with each other. If a business process model is modeled correctly it should give you:

- A view of an existing actual process landscape with all resources and roles used, all products created and all business services used
- Optimized business processes with an optimized use of resources for deriving services

What is a Service in SOA?

What is a service? How can you find a reusable service? How do I approach the topic SOA?

Unfortunately it is not possible to give a clear cut answer as to what the best services, infrastructure and architecture are. If services are broken down into lots of very specific services there are too many to compare. If they are too general then you do not have a true division. You then have services with redundant functions which cannot be combined as desired. M³SOA helps you to identify and define services (phase architecture projection), from the business process (phase initiation) through to an analysis phase (phase system evaluation – what should the services fulfill?).

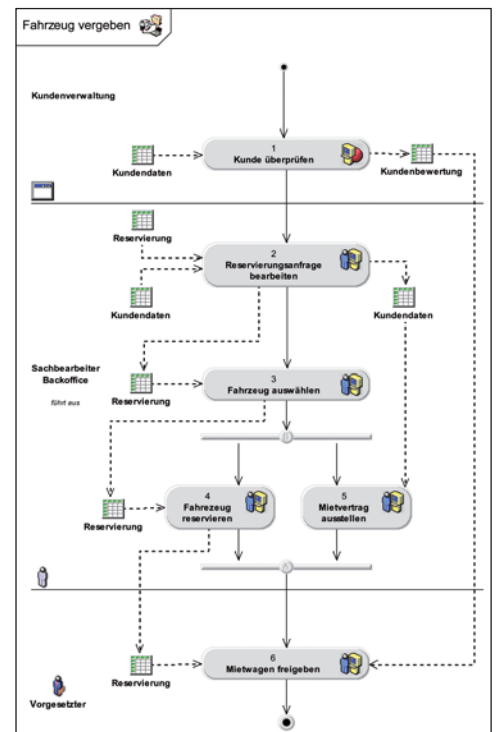


Fig. 1: Business Process Models form the Basis...

The First Project

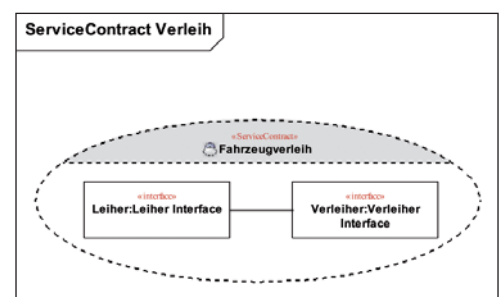


Fig. 2: ...for Defining Services...

BPMN and SOA

7 Tips Based on Practical Experience Help You on the Road to Success

M³SOA helps you to successfully implement your SOA projects by using a structured and integrated approach. SOA is not merely all modeling and methods; it can be used for establishing a new paradigm in the company!

1. Unite IT and Business

Both IT and business require SOA which means that both should support it. The operating department must lay the necessary foundations for this, e.g. documenting processes. Models should be modeled to the same amount of detail and notation. The IT department also has to get used to the processes. A healthy level of pragmatism should not be forgotten.

2. Start Simple and Small

Start with a small project with just a few services and a small group of participants. Those involved in the project should easily be able to see the benefits of using an SOA-based application development in each step of this project. Make sure that all the various expectations within the company are taken into consideration. Show how to achieve transparency using models. Let people know about successes!

3. Establish Infrastructure – Just the Essentials to Start With

SOA should allow for flexibility and agility. Your infrastructure should be able to be modified to suit your company's expertise. Work with this infrastructure and customize it if changes are necessary.

4. Refactoring

Refactoring is a cinch. Modifications are expected to be made and not seen as headache! Don't see modifications as a impedance; instead, put together a team, a culture, which can deal with changes. Establish competence centers and let people know who the contact partner is. Their job is to offer support with any problems faced within projects.

5. Services Channel Functions

Services channel a domain's functions. This can mean that a "customer service" contains functions such as "Find Address" or "Manage Customers" in various forms. Services define interfaces; these interfaces can be used to access information and

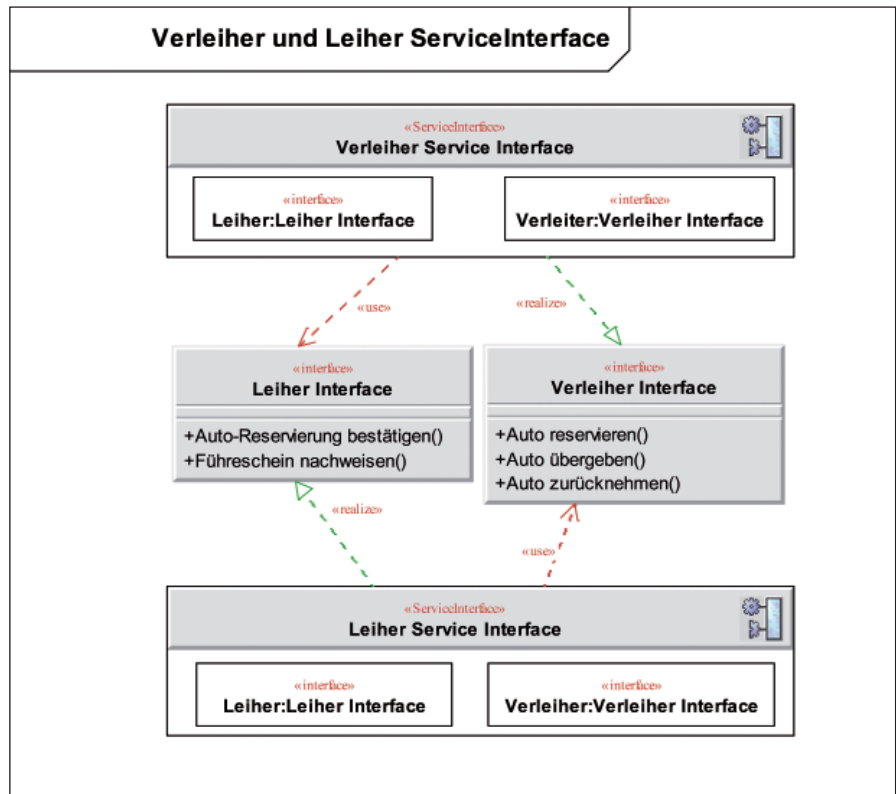


Fig. 3: ... and Their Interfaces.

process it. Different users of this service may also require different interfaces.

6. Establish a Working ALM

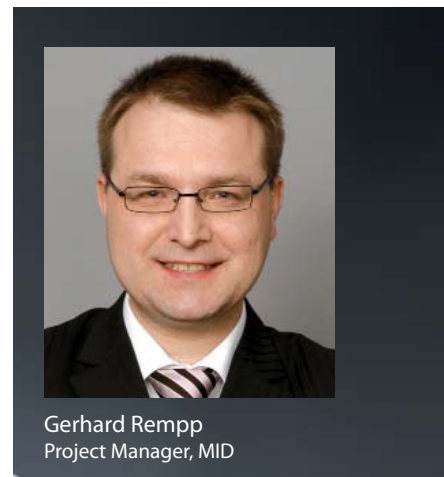
Application Lifecycle Management (ALM) supports you when further developing your applications and infrastructure. All modifications and requirements should be traceable. Transparency for all those involved inspires confidence! This infrastructure should also be developed step by step. Innovator and Polarion provide you with an integration into the world of ALM.

7. Establish a Tool Chain

Work with tools which can be linked, integrated and are even manufacturer independent! Use open standards whenever possible! With its open interfaces, Innovator can be easily integrated into existing infrastructures. Consistent use of open standards (UML, SoaML, SysML etc.) also allows for a high level of investment protection.

M³ for SOA

With M³SOA, MID gives you a methodical approach for efficiently developing model-driven SOA applications.



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