Using Best Practice Models for Rapid Implementation of CRM on Demand

Thomas Karle
PROMATIS software GmbH
Ettlingen

Keywords:

Oracle CRM on Demand, Best Practice Reference Models, Business Process Management, Service-oriented Architecture, Knowledge Management

Introduction

The implementation of business software is increasingly done based on concepts and technologies from service oriented architectures (SOA). The key for a successful definition and implementation of such software systems is the use of model-based approaches. Furthermore reference models with ready-made business processes are able to accelerate implementation especially with on-demand standard software.

This article presents a complete service oriented approach based on multi-layer process models for the implementation of CRM on Demand. The Petri net-based reference models can be used for an efficient realization of a corresponding CRM solution. The reference models are structured in layers of different granularity in order to be able to handle the complexity of spanning business processes. Within these layers complex processes can be orchestrated using business process components. Single business process components that have already been defined as services are orchestrated to complex spanning processes based on these layers. With this hierarchic model CRM business processes can be described based on a formal model in a range from rough processes to detailed user instructions and detailed functions. This approach to implement on-demand CRM software can be used to combine agile methods based on a spiral model with the use of service-oriented reference models and corresponding prototypes.

Up to now CRM software was mostly implemented based on the life cycle of software engineering in a classic manner, going from requirements engineering up to system maintenance. Modeling business processes in line with the requirements analysis is the basis for the systems design and architecture. One problem of this approach when implementing on-demand standard software is up to the deviation of specific business processes and the given processes within the on-demand standard software. Business process models with a service oriented approach reduce the complexity and enable for a flexible business process management by orchestrating services. The approach described here is a multi-layer process model and enables to illustrate processes and services on different levels, depending on the degree of abstraction. All services can be composed by means of service standards and combined with each other vertically by using refinements.

To reduce efforts and expenses for a system implementation a lot of companies decide to implement standard software e.g. for Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM). More and more CRM systems are implemented based using an on-demand solution that has to be integrated with an on-premise ERP solution. Oracle provides both, on-premise ERP solutions and

on-demand CRM solutions. The following sections discuss the problems, challenges and requirements of such solutions and describe an approach for a successful implementation of Oracle CRM on Demand including the process integration with ERP components.

Problems, Challenges and Requirements

During the implementation of on-demand CRM solutions in combination with on-premise components companies might notice that the software's business processes do not correspond with their processes and are not appropriate to the operating procedures. The comprehensive functionalities of on-demand CRM software and the resulting complexity make for a divergent understanding of the term standard in relation to processes. Heterogeneous IT-system landscapes consisting of on-premise and on-demand solutions are for the most part another reason for problems. Additional expenses and efforts are created for complex interface solutions to integrate different types of components. Usually when implementing new business software, large parts of the company are affected because the business processes provided by the software are crossing divisions. Respectively on-demand standard software provides comprehensive functionalities and pre-defined business processes which can only be adapted within the limits given by the software itself. Lack of transparency of the business software's functionalities based on its complexity of such precast systems on one side and vague requirements on the division side, which shall use the systems, cause problems with the implementation. Vague requirements result from missing or very inexact, i.e. informal business process definitions. An aggravating factor: often users cannot give an exact process definition due to missing abstraction and structuring abilities. If processes incl. detailed requirements have not been defined exactly a mapping on the processes and functionalities of standard CRM software is quite difficult. Reasons for this are the conceptual and methodical differences between the used tools and procedure models in the analysis phase and in the documentation of the actual processes of the on-demand software. For end users from the company divisions the implementation of the business software can be challenging as first of all totally different abilities are required than for the normal daily business tasks and on the other hand the project work has to be done in addition to daily standard business tasks. The familiarization with such software systems is difficult as the documentation will be very voluminous due to the software's complexity. Beyond that the ultimate surplus value of such solutions only becomes apparent by the interaction of several corporate divisions, realized by the software. A comprehensive view on the solution remains concealed to most users. This problem often comes up in the system documentation when it is purely functional-oriented rather than process-oriented. The listed aspects all together tend to lead to long project terms and eventually to budget overruns. And often functions that are not covered by the standard software only come up when testing the system.

The described problems result in requirements for a documentation that has to be oriented at the business processes. Beyond that users have to be lead through the processes via top down approach from rough general operational to detailed processes which describe the corresponding realization with the business software down to functional levels. This structure is thought to transfer general business terms from the higher, rough levels semantically to the terms of the on-demand software in detail processes. And by use of a formal model vague process definitions will be prevented. The possibly given informal requirements from the sales department should be assigned to certain positions in CRM process models in order to be able to check the degree of coverage of the on-demand software in an early stadium. One solution approach for the described problems may be found in service oriented paradigms. Service oriented business software based on capsulated services eases the horizontal and vertical integration of different systems and allows for transparency. Process models should consider the standards of a service oriented architecture, i.e. the standards of web services, so that an orchestration of complex processes from existing services is allowed for different levels. Unlike mere Enterprise Application Integration (EAI) solutions, a new generation of service integration apart from

the integration of applications on a functional level shall be provided. Also integration on a higher level should be considered, i.e. integration on a business service level to allow for orchestration of complex SOA-based infrastructure.

Reference Models for Oracle CRM on Demand

With the reference model, business processes of Oracle CRM on Demand are described on several levels. SOA concepts are considered on all layers. The business process Lead2Order of our reference model is used as an example that describes the complete process from the creation of a lead to the assignment of an order that will be transferred to an order management module e.g. of a separate ERP system. Fig. 1 shows the layers on different abstraction levels. The description of processes is done based on a kind of Petri nets provided by the BPM tool Horus.
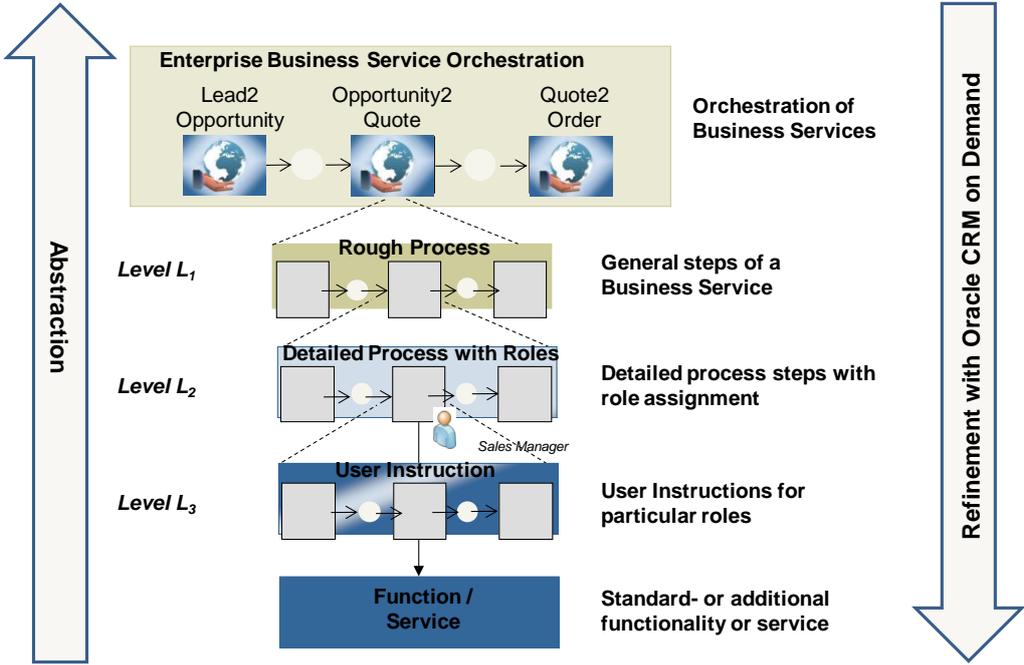

Fig. 1: Multi-layer reference model for Oracle CRM on Demand

The multi-layer model presented here is made up of four layers: Orchestration of Business Services (L_0), rough process (L_1), detailed process with role assignment (L_2) and User Instructions (L_3). On an upper level so called Business Services can be orchestrated to company-wide or company-spanning processes. A Business Service is an implemented self-contained process which illustrates the processing of one business object or business event to another business object or business event, for example: processing a quote to an order within the Business Service Quote2Order. These are business functionalities on a higher, super ordinate abstraction level. A Business Service cannot be assigned a uniform role within a company because one business function usually inherits several roles.

Business Services can be interleaved optionally, i.e. from orchestrating different Business Services, new Business Services are created, which might be used on other detailed levels in line with the enterprise orchestration. Layer L_1 illustrates rough processes within a Business Service. These are again services, which are used within those Business Services. The description of this rough level is done by business terms in a general form to point out the higher abstraction level. In the underlying processes with detailed steps several roles can be involved. Level L_2 allows the assignment of certain

roles to process steps. Layer L_3 describes the detailed procedure within a service for exactly one role, i.e. the approval of a quote for a sales manager. Here SOPs (Standard Operating Procedures) are described for single CRM roles that can be used for documentation, knowledge management and concrete personalization in the Oracle CRM on Demand solution. This describes from the point of view of a certain CRM role how one or more services are connected and can then be used accordingly. Layer L_3 accesses to functions and services of the Oracle CRM on Demand solution or to services of other required ERP on-premise systems like Oracle E-Business Suite for integration purposes.
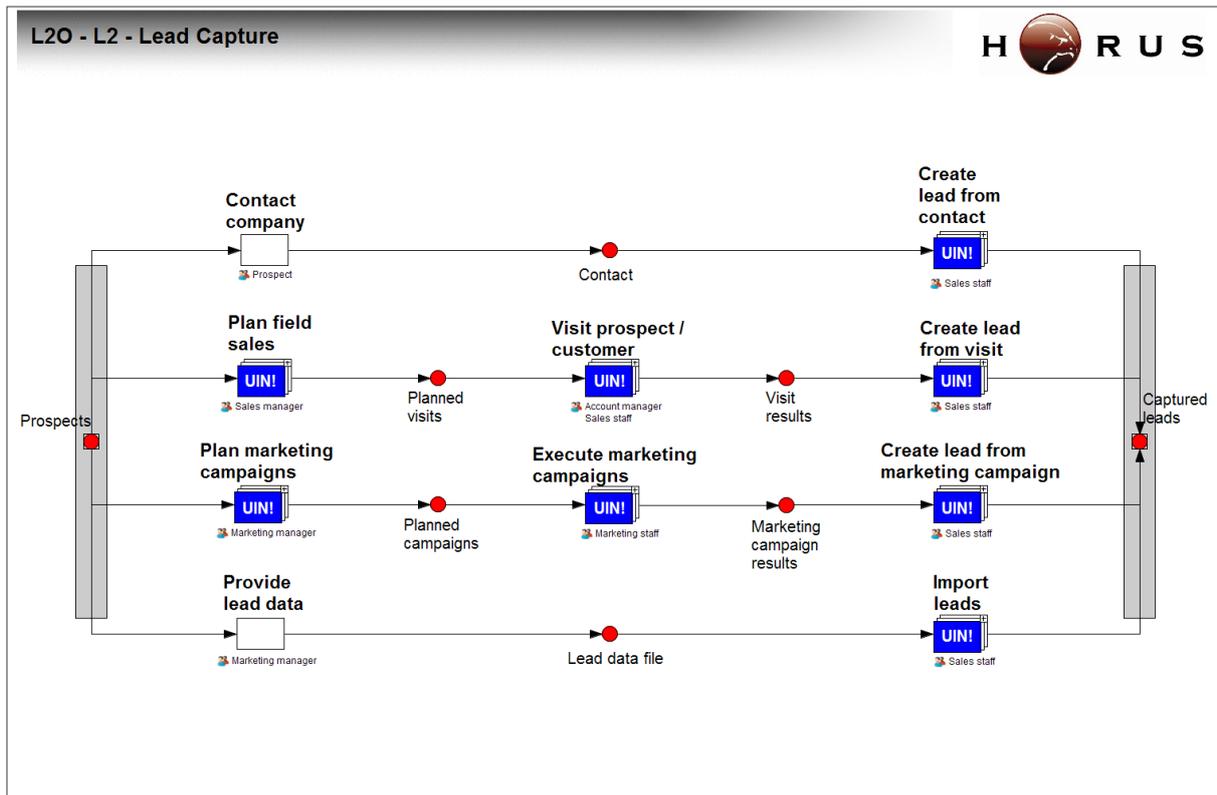

Fig. 2: Detailed CRM process for lead capture

Fig. 2 shows a detailed process model for the business process *Lead Capture* on Level 2 of the reference model. For each step a responsible role is assigned that is used for the configuration of the authorization of CRM on Demand. Process steps which are marked with *UIN! (User Instruction)* are supported by the CRM on Demand solution from Oracle. The refinements of such process steps explain the handling of Oracle CRM on Demand functionalities for the specific users. In the shown process model the different cases of the getting leads are documented. This includes the creation of leads based on concrete contacts of prospects via phone, E-Mail or other means of communication. Another supported process path is the planning of field sales activities with the subsequent corresponding capturing of leads. The third possibility supported by the on-demand software that is documented in this process model of the reference model is the planning and execution of marketing campaigns that also result in new leads. Finally the possibility of importing files by the Oracle CRM on Demand which contain lead data is documented in the process model.

Fig. 3 shows an example of a User Instruction that describes the planning of marketing campaigns in detail. The corresponding functionalities of Oracle CRM on Demand are documented in detail and combined with a process oriented description of the handling for the marketing manager. The User

Instruction documents in this case the creation of a marketing campaign, the setting of specific targets and the definition of required details to execute the campaign. The details that have to be added are tasks, appointments, attachments (documents, links etc.) and recipients.
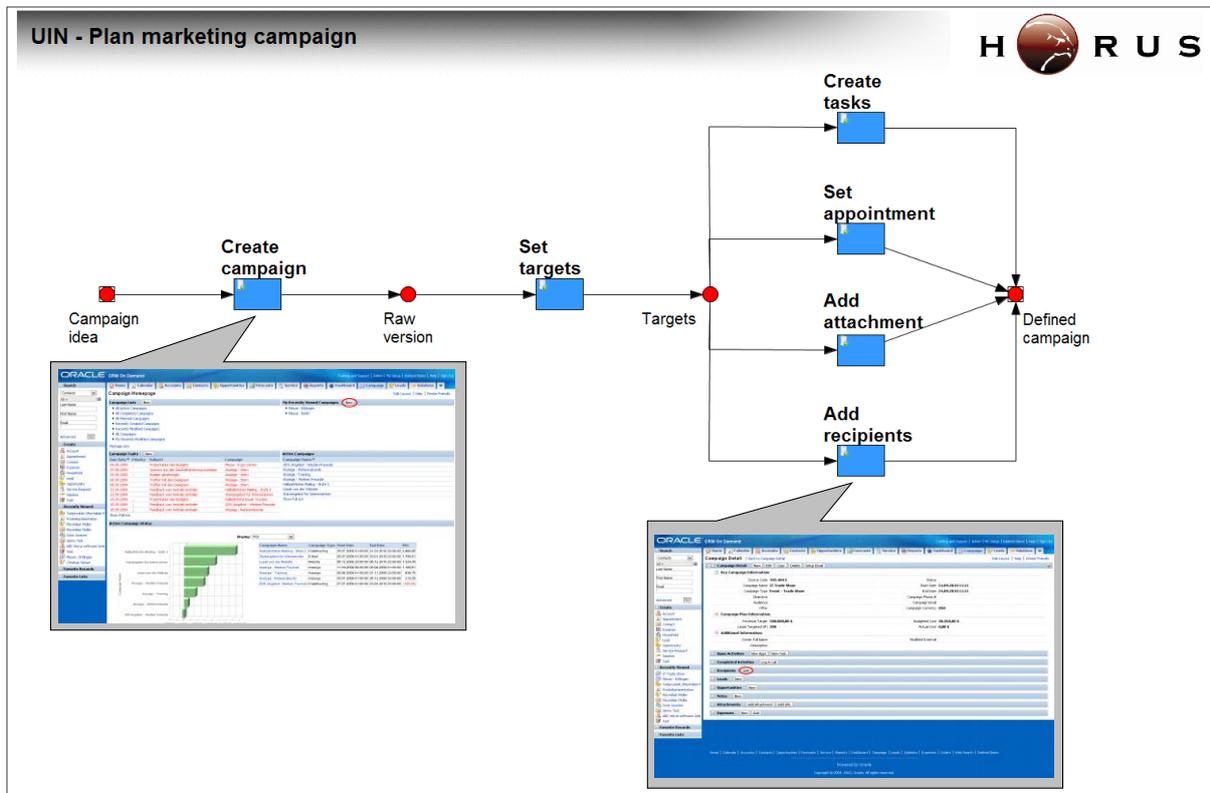

Fig. 3: User Instruction to plan marketing campaigns

Conclusion

In this article a new approach for service oriented multi-layer reference models is presented. The multi-layer model is based on a kind of Petri-nets which enable for definition of process models on different levels. This provides a direct assignment to pre-defined processes of Oracle CRM on Demand. Additionally newly designed or changed processes are supported and can be implemented by using SOA technologies. The multi-layer model is characterized by considering different abstraction and detail levels and therefore enables a controllability of the complexity of comprehensive business software solutions containing on-demand and on-premise components. The approach supports the design and implementation of spanning processes via SOA technologies as well as the management of organizational changes within a company.

References

A detailed description of the approach is available in:

- Schönthaler F., Vossen G., Oberweis A., Karle T.: Geschäftsprozesse für Business Communities – Modellierungssprachen, Methoden, Werkzeuge, Oldenbourg Verlag, 2011.

Contact:

Dipl.-Inf. Thomas Karle
Division Manager Business Applications
PROMATIS software GmbH
Pforzheimer Straße 160
D-76275 Ettlingen

Phone: +49 (0)7243-2179-0
Fax: +49 (0)7243-2179-99
E-Mail   thomas.karle@promatis.de
Internet: http://www.promatis.de