ERP B3: Service Level Driven Management of On-Demand Business Support Systems. [*]

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Abstract. ERP B3 is a SLA@SOI framework based solution for Service Level Agreement driven, on demand and dynamic provisioned ERP systems. In this demonstration we want to show SLA management for hosted ERP systems from three perspectives; the customer, the sales, and IT administrator perspective. Aspects of the negotiation, planning and provisioning workflow, which involves all stakeholders, are outlined.

1 Introduction

Business support systems, such as Enterprise Resource Planning (ERP) systems are well established in large organisations and hosted on customer premise. However, the uptake for small and medium enterprises is still low due to high-complexity and high initial-costs of setup and maintenance. To offer ERP functionality as a Software-as-a-Service (SaaS) offering could be a solution. As ERP systems are business critical systems, customers should be enabled to specific Service Level Agreements (SLAs) which details penalties in case the EPR provider is not able to deliver ERP functionality as demanded.

The SLA@SOI project researches and develops a framework for SLA aware SaaS solutions [1, 2]. This framework provides (1) comprehensive support for holistic and transparent SLA management, SLA translation and SLA negotiation, (2) a means to predict service quality characteristics, (3) an automated service deployment apparatus and (4) mechanisms to monitor and to enforce service quality at runtime.

Lessons learned from utilising the SLA@SOI framework to provide on-demand business applications are discussed in [3]. The authors elaborate on details how the SLA@SOI framework is used to plan, translate and negotiate SLAs at different layers and explain technical and scientific particulars. However, the best way to illustrate this lengthy end-to-end planning, translation and negotiation workflow is with a demonstration.

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2   ERP B3's SLA Negotiation and Translation Workflow

We anticipate three stakeholders in the negotiation and planning workflow; which are the customer, the sales officer and the IT administrator. For every stakeholder ERP B3 offers a tailored user front-end, called portal. The customer portal allows a customer to browse product offerings. The customer can initiate a quotation process and specify service level requirements. The sales portal provides functionality to manage customer requests, to plan business service level agreements and to perform price calculations. The IT administrator portal supports IT landscape planning and provide monitoring and adjustment functionality.
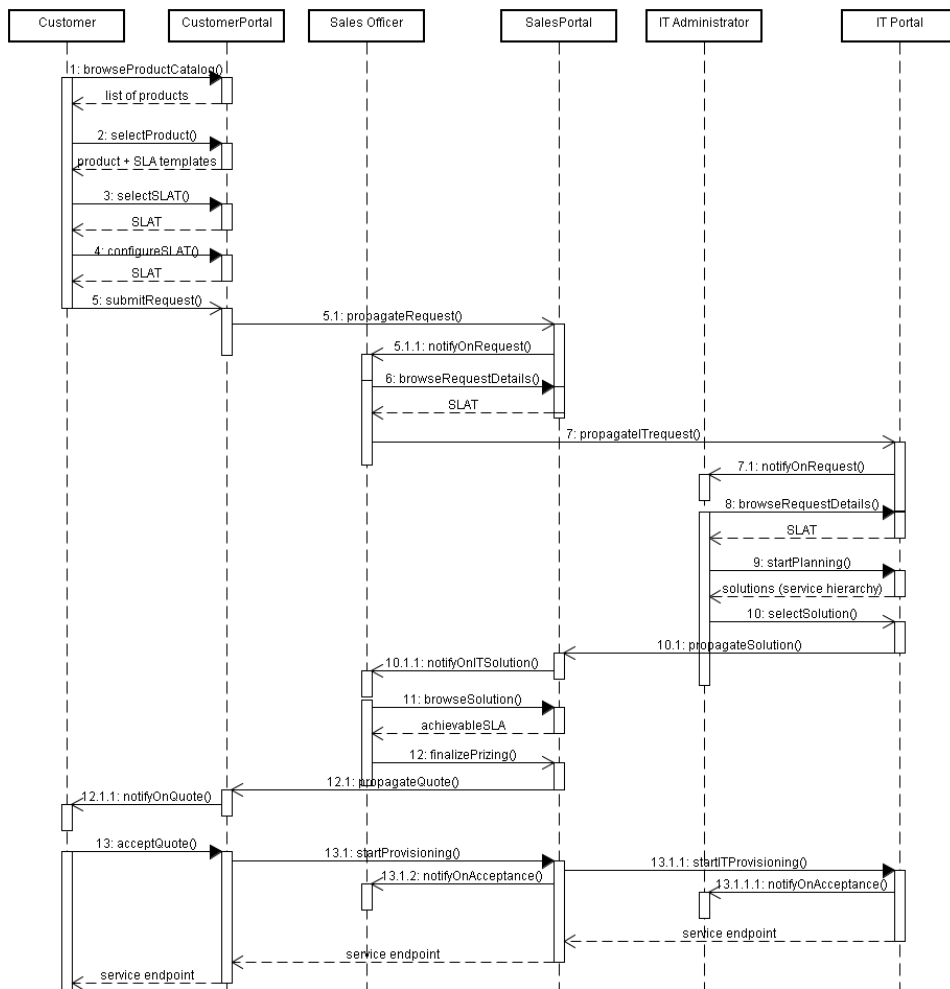

Fig. 1. The negotiation, planing and provisioning workflow.

The end-to-end negotiation, planning and provisioning workflow is depicted in Figure 1 and briefly discussed here:

The customer [steps 1-5.1] browses the product catalogue and select a product of interest. For every product the customer can choose from various pre-defined SLA templates, configures the selected template according to his business needs, and issues a request for quotation to the sales office.

The sales officer [steps 5.1.1-7] examines quotation request details and propagates the IT relevant parts to the IT administrator as an application service request.

The IT administrator [steps 7.1-9] receives the application service request and triggers the IT planning wizard [step 9 ff]. This wizard translates application service requests into a set of IT landscape plans, including middleware and infrastructure requirements. The IT administrator [steps 10-10.1] selects the most appropriate landscape plan. Once an IT landscape plan has been selected the sales officer can finalises the quote for the customer, i.e. she determines a final price.

The customer [step 13] accepts the quote. This triggers an automated provisioning process for the complete service hierarchy. The sales officer and IT administrator are notified accordingly.

3   Conclusions

Server virtualisation and cloud computing enable new kinds of service provisioning and management methodologies. The SLA@SOI framework supplements these methodologies with SLA management, which is required in a business context. ERP B3 makes use of this framework to provide service level aware on-demand business applications. In this paper we have shown the end-to-end negotiation, planning and provisioning workflow, which co-ordinates SLA management activities among various stakeholders.

References

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