

# Successful Process Automation with Open Source and BPMN

## Highlights

- Automation of a core process (DSL Order Provisioning)
- Using Open Source Technologies (JBoss jBPM 3)
- Process Modelling with BPMN for Forward- und Reverse Engineering
- Successful Synchronisation of specialized and technical Process Models
- Realizing Significant Advantages in the Process Maintenance and Operation



## About 1&1 Internet AG

1&1 Internet AG is a leading Internet provider with more than 9.5 millions of client contracts. The array of products is meant for consumers, free-lancers and tradesmen. It includes web hosting (internet presence, domains, online shops) as well as fast DSL access with DSL telephony and Personal Information Management via Internet. 1&1 is a fully owned subsidiary of the listed United Internet AG.

## Initial point and commissioning

The DSL connections order process was originally run by a, by 1&1 self developed, process engine. This process engine was to be replaced by a company-wide and standardized 1&1 SOA platform, which would integrate the open source process engine JBoss jBPM 3. 1&1 expected from this conversion a reduction of operating efforts on maintenance and further development on the one hand, and advantages due to standardized tooling in the process operation on the other. Therefore, 1&1 commissioned us to support them in the porting process.

## Project progression

Our team started with a reverse engineering of the process and its subsequent translation into the execution language of JBPM 3, including the required connection of existing services, whose implementations remained unaltered with regards to their content. This connection was abstracted from jBPM 3 for investment protection reasons in order to reduce the dependence on the engine. Therefore we employed our Process Engine Abstraction Layer (PEAL) which has already been tested beforehand. In addition we extended the 1&1 SOA platform by some required message correlation abilities. We fully implemented the first part of the order process, the so-called clearing part which includes all necessary checks of the contract attachment, put it into operation and handed it over to the 1&1 team in charge for maintenance. After the successful realization of this step in time and budget, 1&1 is able to take over the further implementation of the process itself whereby camunda will still be present to advise and support.

During the project we integrated jBPM 3 with the Signavio Process Editor, a tool for specialist process modelling with the standard notation BPMN. The emphasis of this integration was the mapping for the Forward Engineering;

that is a mapping of BPMN onto JBoss's own execution language. The specialist modelling conventions were revised due to their technical feasibility and the mapping is available as a plug-in for the graphic environment of Activiti Cycle. All of this and the support in the definition of the tool chain already allow a broad deployment of this procedure within 1&1.

In the run-up of the project, we already supported 1&1 to establish the technical control station PIS (Process Information System) which allows a detailed monitoring of the process in the company. This control station has been reworked during the project to fulfil the demands of the daily process operation completely.

## Conclusion and Summary of our Service

The result of our project was considered as very positive: Not only was the amount of work for maintenance and further development of the process engine reduced but also the process coordination and operation improved significantly due to the hundred percent synchronisation of the business-oriented (BPMN) with the IT-oriented (JPDL) process models. Changes within the processes can now be realised considerably faster than before.

## References

"In camunda we have a reliable partner at our side who stands out for their competence in BPM and professional project management. Especially their expertise in the area of BPMN and the feasibility of processes within the JBoss SOA platform with jBPM were very helpful."

**Michael Salzmann, Head of Software Development Access, 1&1 Internet AG**

"Through cooperation with camunda we have a reliable partner at our side who doesn't only help us with the realization of the specialist processes in our company but also supports us in the development of the SOA platform infrastructure with their well-founded knowledge in the area of jBPM and BPMN. It is also an important advantage that through our cooperation we have direct contact with leading developers of the open source community, which means we are at the pulse of time with regard to our platform components."

**Dr. Jörg Moldenhauer, Head of Technology & Infrastructure, 1&1 Internet AG**

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