



Applications online

North Rhine-Westphalia's pilot project 'Applications online'

With Applications online, the Ministry of Labour, Health and Social Affairs of North Rhine-Westphalia provides a unique service: companies can conduct entire application processes such as permits or declarations concerning industrial safety and health regulations online and without changing the medium. No paperwork required. North Rhine-Westphalia is currently piloting the use of a qualified electronic signature. This promising project based on a together developed back-office solution, strengthens the Ministry's position as early-mover in the area of eGovernment.

In the area of industrial safety and health, permits and declaratory statements are necessary though not particularly popular. The administrative effort is enormous. Applications online, created by the Ministry of Labour, Health and Social Affairs of North Rhine-Westphalia together with the Regional Institute for Health and Labour in North Rhine-Westphalia (Landesinstitut für Gesundheit und Arbeit NRW), provides a service that reduces this administrative effort for both, citizens and the public authority itself. Since 2000, companies can put their applications online under www.arbeitsschutz.nrw.de.

The applicant must specify only some basic information. However, this data is sufficient to generate a personalized form that exactly fits this person's particular needs thus eliminating a major error source. Because of the large number of forms, up to now it was quite difficult to find exactly the right ones for a specific applica-

tion. The applicant is then guided through a web based form. In every field of this form, a plausibility check is performed to avoid formal errors. As a result, the public authority receives only formally correct applications which must only be checked regarding their contents. This procedure has improved considerably the quality of submitted applications and boosted processing speed. Therefore, companies receive their permits much faster and the involved public authorities need less resource to process applications.

The public authority offers two options for further handling. In the 'light version', the form is filled out online and submitted by mouse click. The data is encrypted according to the ssl standard. For authentication, the applicant must print a short version of the application, sign it by hand and send it to the public authority.

Introducing the digital signature

The second option allows signing applications directly in the Internet browser by means of a qualified electronic signature. Under German signature legislation, this is the strictest form of electronic signature, equal only to manually signing a document. In this case, it is not necessary to submit a further, manually signed version of the application.

This second option was developed together with the Bremen Online Services GmbH & Co. KG and is based on the OSCI standard. Applications online is North Rhine-Westphalia's official pilot project to test the qualified electronic signature in application processes. The primary goal of this

pilot is to identify a consistent and feasible signature standard for public administration.

In both options, incoming applications receive a timestamp and can be retrieved by the public authority in a virtual inbox. Further processing until a permit is finally issued (in the 'light version' after the online application has been confirmed by the offline confirmation) is conducted by means of the workflow system COSA BPM from BPS-Solutions GmbH. Both versions lead to cost and time savings for citizens. As the public authority, too, has a considerable advantage, online applications will be promoted by lowering the handling fee compared to paper applications.

COSA BPM manages application processes

But how could such an extensive project be realized so quickly? The Ministry is one of the early-movers regarding the introduction of modern technologies. A workflow solution for a more efficient, process-oriented application management had already been implemented in the mid-90s. The decision, which software to introduce, was based on a Europe-wide tender conducted in 1995. The software COSA BPM easily convinced the decision-makers with its multi-platform capacities and its flexibility. Furthermore this workflow system could be integrated smoothly into the agency's IT infrastructure comprising database systems and office communication. This was a major economic factor as it guaranteed future hardware and software independence.

The 'Regional Institute for Health and Labour in North Rhine-Westphalia' and the software provider BPS-Solutions GmbH teamed up to define a base workflow, representing a typical application process. A major requirement was that this workflow process could easily be adapted to all appropriate application processes. The employees were involved from the very beginning. Looking back, the project manager in charge, Michael Deilman, states: 'One of the main objectives was to analyze the intricate and fundamental issues involved in introducing a workflow system within public administration. It was of utmost importance to involve the employees to the extent that in the end approval from the main staff council was sought before committing to full roll-out.'

Right at the beginning, core teams of development employees and future end users were formed. The latter were trained and qualified to a level where they could make major contributions to the system's development. This way user requirements and suggestions could be included in the application. Apart from this, these team members would later on serve as multipliers and icebreakers among their colleagues.

High user acceptance

This approach proved to be very successful. Today, the system is fully accepted by all involved parties, from top-level executives over head of departments to end users. For the approx. 60 users, the system has led to a substantial workload reduction. All users are assigned certain process steps according to their individual

competencies. This concentration on core competencies has considerably improved the quality of application processing. Looking back, the early focus on process orientation was a wise decision. In the mid-90s, nobody could have guessed that the majority of a public authority's customers – more than 600,000 small and medium-sized companies in North Rhine-Westphalia – would be equipped with Internet access within such a short period of time. To improve its customer service, all the authority had to do was adding an Internet front-end to the existing back-office system. It took no more than a few months to achieve this goal. And with great success. The signature project, too, seems to be turning into a success story: within the first two weeks after the pilot project was launched, the agency received 25 digitally signed online applications without encountering a single problem. After evaluating the excellent results achieved so far, it is now planned to roll out Applications online to further areas.

Technical concept

Applications online is based on a thin client/server architecture with a Solaris back-office operating system. A platform-independent software requiring nothing but a standard Internet browser is used on the client side. On the back end, the software components are available for a variety of platforms. The workflow product COSA BPM manages, coordinates and tracks the incoming applications. The workflow engine takes on a controlling function for e.g. deadline monitoring and plausibility checks. All operational information is managed with

hin a relational database. Application data is entered via the browser and then sent to the 'central administration'. A user interface based on web technology enables administrative employees to perform a visual check, make corrections if necessary and pass on the application data to the workflow-based application processing. Incoming applications may be processed virtually from any location.

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