

Customer story:
The Danish Nature & Environment, phase 2

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The Single Sign On solution is a giant technological advance for The Danish Nature & Environment Portal



Single Sign On and user management solution for public environmental data



The Single Sign On solution is a giant technological advance for The Danish Nature & Environment Portal

In record time, The Danish Nature & Environment Portal has achieved a technological conquest enabling the regulation of the access to all the environmental systems used by the authorities. The tool that empowers the process is an advanced Single Sign On solution from Globeteam based on the newest standards. By adopting this system, private as well as public enterprises will be able to take a major step forward using few resources and making large administrative and financial savings.

By Kirsten Nielsen, Globeteam

At the beginning of this year, the number of Danish municipalities went from 271 to 98, the 14 counties disappeared and 5 new regions were introduced. At the same time, 700 new workplaces were created in the seven environmental centers under The Ministry of the Environment. This resulted in a large-scale redistribution of tasks and areas of responsibility within the environmental field.

The Danish Nature & Environment Portal came into being in the wake of The Municipality Reform and today, it provides the public and the authorities access to environmental data. "The Danish Nature & Environment Portal opened on January 1st 2007 to ensure the data basis for coherent procedures across the administrative borders. From one day to the next old systems closed down and new ones opened. In view of regulating the users' access to and rights within the new systems, Globeteam and CSC designed an advanced Single Sign On user management solution based on the new WS-Federation standard. The user management solution already has more than 10,000 active users and it is currently expected to reach a stable level of between 10,000 and 15,000 active users. In term, the solution will provide access to more than 25 systems such as arealinfo.dk (area info), Jupiter (ground water database), Rottebekæmpelse (combating rats), Kort og Matrikelstyrelsen (National Survey and Cadastre), etc.," says IT project manager at The Danish Nature & Environment Portal secretariat Jens Jakob Nørtved Bork who expects a lot of the new solution: "It's a huge step forward in terms of promoting efficiency in public administration and it will be a major money saver because of the extremely low administration costs."

Less administration and more efficient procedures



The SSO solution is based on Microsoft's standard products Active Directory and ADFS. However, Globeteam has refined and extended the ADFS technology enormously to honour the requirements of The Danish Nature & Environment Portal. "Despite our comprehensive demands, Globeteam managed to develop a cost-effective federation solution within only six months. Actually, in my opinion, this project has set a Danish record since all parts of the process have been carried out swiftly right from the specification of requirements and the competitive procurement to the completion of a finished, highly complex and successful system," says Jens Jakob Nørtved Bork.







Situation

The Municipality Reform resulted in a large-scale redistribution of tasks and areas of responsibility within the environmental field between the municipalities, the regions and the state and brought on the need for a common public environmental portal. Also, the reform has necessitated the regulation of access to the systems for users of the environmental sector and for companies providing data to the systems.

Solution

-  The creation of an SSO solution which – via the WS-Federation standard – provides dynamic access to the systems using a so-called token.
-  The SSO solution allows you to add Java, ASP3 and .NET-based applications. Customised solutions have also been developed for applications that are run using SiteMinder and Citrix.

Advantages

-  Via a single login, the users automatically log into all the environmental systems for which they have been authorised.
-  A secure solution that complies with the common public IT security standard DS484:2005.
-  Important savings on administration and development and increased flexibility.
-  Changing to the federated solution is cost-effective.

“What’s innovative about it is that the federation solution is based on trust between the environmental partners regarding the actions of the users and their administration. The assignment of user rights to the central systems has been decentralised and this means that entities such as the municipalities sign a legally binding user management agreement with us. Thus, we trust that the local administrators assign the correct roles to the users enabling them to access the portal’s data,” says Jens Jakob Nørtved Bork.

The federation solution means that the user is authenticated locally, i.e. his identity and role are confirmed locally, and this information is used for authorisation in the subject field systems. In other words, the individual user is only managed in the host organisation where he or she already exists and thus, the existing user accounts ensure fully automatic login to all the systems of the environmental sector. In addition, if the host organisation uses a sufficiently detailed role system, the federation solution will not cause a larger administration workload for the IT department; being linked to the large number of environmental applications, to the driving license system, etc. is “free” in terms of administration overhead.

High level of security

Via the roles, which the user has been assigned by his local administrator, the local federation server issues a so-called federation token providing access to the environmental portal’s systems and guaranteeing the user’s identity and rights. *“The issued federation token is checked by the central server complex before it is sent to an environmental system. This is where the federation technology has been extended beyond what we thought was possible only a short while ago,”* says Jens Jakob Nørtved Bork.

The federation token is transported through an SSL-encrypted (Secure Sockets Layer) tunnel and follows the user as he logs into the systems of various subject fields. *“This way we maintain a high level of security while also spot-checking via logging. But basically, we trust our partners,”* says Jens Jakob Nørtved Bork.

Major progress in user experience

In addition to providing administration cost savings and lower support expenses, the SSO solution means a massive improvement of the user experience. *“The user’s own login, which he uses to log into the organisation’s intranet in the morning is automatically used for logging into all the systems of the environmental sector without the need for additional user names and passwords. He doesn’t have to remember or spend time typing all the passwords and logins which were required until now to access the systems. From now on he actually won’t experience any difference between using the systems of the environmental sector and his organisation’s own,”* says Jens Jakob Nørtved Bork. *“And when you consider the many thousand environmental employees and the number of systems in the different subject fields it’s obvious that it’s possible to save many working hours,”* he adds.



The driving licence system has been linked to the solution

KL (The Association of Danish Municipalities) has chosen the SSO solution for handling the user management in connection with the driving licence system. As a consequence, The Danish Nature & Environment Portal gained 2,000 new users (driving instructors, policemen and municipal employees servicing citizens) all at once. At the same time, it enabled us to show how fast and inexpensive it is to add new applications to The Danish Nature & Environment Portal.

The Danish Nature & Environment Portal

The Danish Nature & Environment Portal provides quick and easy access to environmental data for both citizens and professionals.

The solution has been created under the so-called common public project Municipality Reform and Digital Administration in the Environmental Field, which is carried out jointly by The Ministry of the Environment, The Association of Danish Municipalities and Danish Regions.

Inexpensive and easy to implement

There are no risks or large investments involved in integrating the SSO solution. No expensive add-ons or fundamental changes to the organisation's existing systems are needed. The solution is based on server components that most municipalities already use as user management tools. *"The solution is independent of platforms. The organisation should only be capable of providing a SAML 1.1 token using the WS-Federation protocol. It doesn't matter whether this is done via a Novell-based or an Oracle-based federation server, as long as the token complies with the specifications,"* says Jens Jakob Nørtved Bork adding: *"Also, Globeteam has developed a package solution to be implemented in the partner organisation which makes it possible to deploy the federation solution within a few days and at a cost which is recovered very quickly."*

"I've been happy cooperating with both CSC and Globeteam. In Globeteam's development group there are some extremely competent and very knowledgeable people," says Jens Jakob Nørtved Bork, IT project manager at The Danish Nature & Environment Portal secretariat.

The potential of the SSO solution is enormous. The advantages are great and the costs so low that many public and private companies can obtain noticeable results by implementing the federated system internally.

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