

CASE STUDY

THE SLOVENIAN LEGISLATION PORTAL



Modernization of the Slovenian Legislation Portal

AT A GLANCE

INDUSTRY

- Slovenian Public sector

CLIENT

- Office of the Government of the Republic of Slovenia for Legislation

CHALLENGES

- Port all of the functionality of the old system while implementing additional new functionality
- Integrate numerous heterogeneous non-structured data-sources and automate data transfer
- Enable smart "google like" search
- Implement complex legal business logic

RESULTS

- Advanced full text search (autocomplete, search suggestions, learn as you go, highlighted context snippets, spelling suggestions, sorting, multi-select...)
- A new integrated view of all legal acts (laws, state and municipal regulatory acts, international contracts) and judicial practices in Slovenia
- As a consequence of new legal business logic, the information and content on the portal are more accurate.

WHAT WE FACED

We were faced with the task of modernizing the Slovenian Legislation Portal, a portal that provides information and wording of all Slovenian laws and legal acts, judicial praxis, and international contracts pertaining to Slovenia.

Due to various technical, infrastructural and usability problems with the old solution, an upgrade was needed to answer these issues, as well as integrating a number of new public databases, mostly Lotus Notes. The data in these databases was document oriented typically containing a lot of text.

The old SLP was a public portal providing information regarding Slovenian legislature. Its only information source was the Register of Regulations of the Republic of Slovenia. This register contained data such as when the law was brought in to effect, by which legislative body, what relationships the legal act has to other laws, etc.



The data was extracted from the Public Legislation Register relational database using complex PL/SQL stored procedures while the portal itself was made in PHP.

AT A GLANCE

TECHNOLOGY

- JavaEE (Spring Core, Spring MVC)
- MongoDB
- JBoss 7.1
- Apache CFX for web service design
- Apache SOLR
- EhCache

The data was extracted from the Public Legislation Register relational database using complex PL.SQL stored procedures while the portal itself was made in PHP. The wording of the laws on the old SLP were only available via hyperlinks to another 3rd party portal which rendered text search on SLP impossible. The client had .doc files of most of the laws but they were only available as downloadable documents and were not used for indexing the content.

Aside from that, the portal was lacking integration with other important legislation information sources such as the national assembly, the supreme court, the government, various ministries, municipalities, etc. Data from these sources could be used to provide additional information, enriching the existing information (e.g. all decisions made by Slovenian courts in connection to a specific law, or which laws are in connection with international contracts, etc.).

SOLUTION

To resolve these issues, we decided to port the solution to a No-SQL database.

The flexibility of a No-SQL database allows simple adding or removing attributes as needed and in combination with the SOLR search engine, enables a more powerful, relevant and quick full-text search. In this way, we eliminated the need to create complex SQL queries on the database and make difficult adjustments to the database model during the development.

As the new portal was implemented on a No-SQL database, the existing functionality of the old SLP had to be ported to the new platform along with all the exports from the Oracle database. This functionality is now the core functionality of the new solution enriched with the data from other legislative bodies.

Implementing a smart, "Google" like search, with features such as autocomplete, search suggestions, learn as you go, highlighted context snippets, spelling suggestions, sorting, multi-select, was tackled by harnessing the power of the open-source SOLR search engine which not only enables all these features but most importantly, it enables us to fine tune the search results to provide the most relevant search hits. The search takes into account content specifics (e.g. valid laws are ranked higher in search results although the same text was found in more places in an invalid law).

A special attention was given to the usability of the user interface as the portal was designed for general public use as well as for professionals.

Separate views were implemented for the basic, advanced and analytical users. Wordings of all legal acts are now accessible on the portal, while extensive data cleansing and data completion, which had been done by the client in the background ensuring more accurate and reliable information for users.

RESULTS

The new SLP features a very flexible design, that allows quick and easy modification to the database if required by an integrated data source.

The main goal of the porting was to provide users new and useful features while improving the content. The portal now features an advanced search with many new features (autocomplete, search suggestion, spell check, etc.), while the search results are more relevant due to careful calibration of the search engine to the content.

The content has been greatly improved. Users can now not only read the wording of any legal act in Slovenia, but can also see how it is applied in praxis by the Slovene courts.

A side effect of the modernization was also more accurate content because data cleansing was required before the porting became possible.



ABOUT THE CLIENT:

Office of the Government of the Republic of Slovenia for Legislation



The main concern and responsibility of the Government Office for Legislation is to ensure that regulations are constitutional and lawful, internally consistent, prepared in accordance with the rules on legislative drafting, comprehensible to its addressees and effective in practice.

Creating value through partnership

Comtrade is the largest IT organization in South East Europe specializing in the fields of software solutions development, system integration and hardware distribution. With more than 900 satisfied customers and offices across Europe and the USA, Comtrade has become a recognized name on the global stage. Founded in 1990, Comtrade now employs over 2,000 business and IT experts, including 1,200+ software engineers. With a proven track record of delivering IT solutions and services that help reduce business complexities and costs, we are a trusted technology partner to medium and enterprise businesses.

2000+

Total employees

30

Strategic partnerships

1200+

Software engineers

10

Development campuses

900+

Loyal customers

04

Technology centers

Comtrade Slovenia: info.si@comtrade.com

Comtrade Ireland: info.ie@comtrade.com

Comtrade Germany: info.de@comtrade.com

Comtrade BiH: info.ba@comtrade.com

Comtrade USA: info.us@comtrade.com

Comtrade Austria: info.at@comtrade.com

Comtrade Serbia: info.rs@comtrade.com