

## GIS-Centras



# Geographic Information Portal of Lithuania

## The Customer

The State Enterprise National Center of Remote Sensing and Geoinformatics “GIS-Centras” is the Enterprise, that was established on the background of the State property and belongs to the ownership of the State. Proprietary rights of the Enterprise belong to the National Land Survey under the Ministry of Agriculture.

State Enterprise “GIS-Centras” provides services of distribution and supervision of analogue maps and their data bases:

- projects, implements and technically support geoinformation systems,
- creates, updates and distribute geoinformation data bases,
- take care of georeference base data.

[www.gis-centras.lt](http://www.gis-centras.lt)  
[www.geoportal.lt](http://www.geoportal.lt)

## The Task

The Lithuanian geo portal is the central entry point into the national spatial data infrastructure (NSDI) of Lithuania. This consists of GIS Centras data and services as well as the data and services of 10 Lithuanian governmental institutions and enterprises.

The challenge was to integrate these different providers within one single platform, allowing the ordering of products from different providers while ensuring a flexible and consistent order processing. Introducing electronic licensing for geo services, which requires the purchase of a licence in order to get access to protected services.

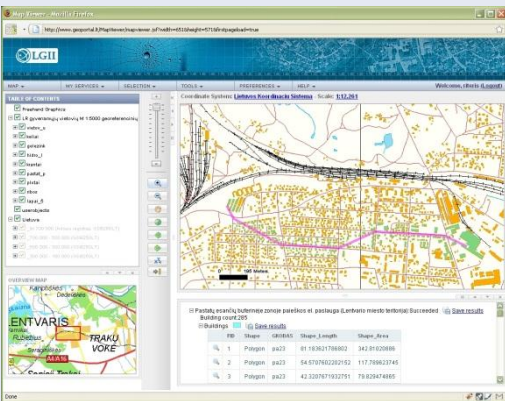
## The Solution

For the integration of heterogeneous organisations, the only promising way is to rely on consistent standards. Thus, the Geoportal is based on OGC services provided by all nodes in the infrastructure.

For commercially-relevant data, these services are protected by sdi.suite licenseManager, which provides usage licences for services and enforcing their possession by any requestor. Furthermore, the whole shop system is implemented based on licenseManager, allowing different products such as service licences, data sets and analogue products from different providers to be combined within a single order, while allowing varying delivery methods for different products (download, postal delivery etc.).

## The Solution is based on:

- OGC standards
- sdi.suite securityManager
- sdi.suite licenseManager
- ESRI Geoportal Toolkit



GIS-Centras

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### The Benefits

The Geoportal provides online access to the National Spatial Data Infrastructure (NSDI) of Lithuania, while leaving the data at the responsible organisations which are maintaining this data. It follows the principle of distributed maintenance but central access, which is an efficient way of making governmental data available without the need for replication.

This ensures that the solution is independent from the actual software systems used in the distributed offices, and ensures that the data in the portal is always up to date.

It further allows customers to make use of standardised web service interfaces to load geospatial data directly into a GIS system, without prior need to download the data and store it locally.

### Summary

- Central portal for NSDI Lithuania resources
- Providing service licences, data, and analogue products
- Distributed and service-based, so data remains where it is maintained
- Direct, licence-controlled access to data services out of a client application

The Lithuanian geoportal was one of the first portals worldwide allowing commercial provision of geo portals based on open standards. It was conducted together with HNIT Baltic, the Lithuanian ESRI distributor.

### Outlook

With the INSPIRE legislation coming into force, the existence of a portal making use of distributed data sources is already a huge asset. This means, the general architecture has already proven its applicability and robustness, and can now be extended in order to support the INSPIRE network services as required by law.

### Customer's Opinion

Before the Lithuanian Geographic Information Infrastructure, GIS staff could spend 70 percent of their time just searching for or acquiring needed data that another agency often already had. By unifying the available data, we estimate that the Lithuanian Geographic Information Infrastructure reduces this search and collection time by 40 percent. That decreased duplication and improved efficiency equal a cost savings of nearly €5 million.

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