Cartography in the Internet and the National Spatial Data Portal

Eliza Asendy
19th June 2014, Aalborg
How did it happen?

Paper maps

Need

Idea

Implementation

Data sets available for all

Polish Geoportal

INSPIRE Geoportal

Geodetic Geoportal

Geoportal Mobile

Statistic Module

National Geoportal
Needs

Central geodetic and cartographic data resource collects and processes data from direct measurements, and other spatial data having reference character in relation to other data, such as real estate cadastre, large scale maps, including basic map and maps of utilities (territorial development), as well as topographic products in medium and small scales, geodetic and surveying control, and systems of spatial referencing, etc.

Central geodetic and cartographic data resource includes also printed collections of governmental maps and other paper maps.
Implementation

2005 idea – the beginning

2008 geoportal.gov.pl

2009 continuation

2013 new geoportals
New geoportal

Extension of Geoportal system has provided solutions to positioning the portal in infrastructure for spatial information as the trade and as the national geoportal for spatial data services. Implemented mechanisms gave users the ability to access spatial data from Central geodetic and cartographic data resource, but also external data, created by other institutions.

For all the customers has been also created a single/central access point to all services provided by the Geoportal system.

All the mechanisms related to data sharing, user authentication and authorization and also monitoring and reporting of services are using by all systems operating in the Head Office of Geodesy and Cartography.
Topographic maps TBD

Database of Topographic Object collects the information and data about topographic objects. This database is appropriate to the maps in the scale 1: 10 000.

The content of database includes 10 thematic areas, where each of them is saved in several layers:

- An administrative unit
- A network of roads and railways
- Buildings and installation
- Land cover
- Land use
- The network of watercourses
- Protected areas
- Geodetic networks, objects
- Network of public utility lines
- Points of address

Geoportal presents TBD n2 components:

1. Vector topographic data base (base TOPO)
2. Digital map (base KARTO)
Dear All!

Welcome to the new edition of the national geoportal. We are pleased to introduce you to the results of more than two years of intense work that was carried out under the framework of the GEOPORTAL 2 project.

We are aiming at creation of truly innovative solutions in the area of space data supply. Therefore, GEOPORTAL 2 has importantly enlarged the range of functionalities that have been made available to the portal users so far. Starting from now, the users will be able to experience new quality in the area of access to data sets that are owned by the public administration. Thanks to geoportal, the services of spatial data infrastructure have been made available, not only for selected administration units responsible for state registers, but also for a large number of both private users and legal entities.
Geoportal integrates services provided by communes and districts WMS servers (NSDI) as well as other external servers.

There is suitable tool that allows user to connect to WMS server and then display the map. The most popular map data formats used to render the image are GIF, JPEG and PNG.

All services provided by communes and counties must be based on appropriate and universal schemas. Symbolization rules are determined to make layers data readable in particular on the white background, black and white orthophotomap (Geoportal's basemap) or coloured orthophotomap background.
Dear All!

Welcome to the new edition of the national geoportal. We are pleased to introduce you to the results of more than two years of intense work that was carried out under the framework of the GEOPORTAL 2 project.

We are aiming at creation of truly innovative solutions in the area of space data supply. Therefore, GEOPORTAL 2 has importantly enlarged the range of functionalities that have been made available to the portal users so far. Starting from now, the users will be able to experience new quality in the area of access to data sets that are owned by the public administration. Thanks to geoportal, the services of spatial data infrastructure have been made available, not only for selected administration units responsible for state registers, but also for a large number of both private users and legal entities.
Edytor metadanych

Metadata Editor is a web-based application that allows metadata to be changed or managed of existing files. Function tools are available through implemented web-based graphical interface (operated by web browser).

The new tool is built on the previous version of EGI Geoportal Editor that was compatible with PZGK, INSPIRE and ISO profile.

New Metadata Editor provides the following functionality:

- public Access - no login needed (in the case of metadata which are not published in Geoportal catalogue)
- "thin client" tool available on-line
- support for multiple metadata profiles (PZGK, INSPIRE, ISO)

There is a diagram below presenting metadata editing services. Functional model recognizes appropriate group of application services that perform separate tasks like components of IT systems.

The application is available at the website: [http://edytor.geoportal.gov.pl/edytormetadanych](http://edytor.geoportal.gov.pl/edytormetadanych). Currently, editor's publication is blocked until the full integration of the editor with catalog server, made under the contract of implementation.
Dear All!

Welcome to the new edition of the national geoportal. We are pleased to introduce you to the results of more than two years of intense work that was carried out under the framework of the GEOPORTAL 2 project.

We are aiming at creation of truly innovative solutions in the area of space data supply. Therefore, GEOPORTAL 2 has importantly enlarged the range of functionalities that have been made available to the portal users so far. Starting from now, the users will be able to experience new quality in the area of access to data sets that are owned by the public administration. Thanks to geoportal, the services of spatial data infrastructure have been made available, not only for selected administration units responsible for state registers, but also for a large number of both private users and legal entities.
Geoportal user interface
The content of the National Geoportal consists of 12 layers:

- National Register of Geographical Names
- National Register of Boundaries
- Land and building registration
- Cadastral data
- Elevation Model
- Topographic maps
- Vector Topographic maps (VMapL2)
- Orthophotomap
- Scans of topographic maps
- EuroBoundaryMap (EBM)
Example:
- Geodetic network of control points
- Indexes of topographic maps
- Indexes of orthophotomaps
- Indexes of other fotogrametric products
- ...
The content of the INSPIRE Geoportal consists of 6 layers:
- Addresses
- Geographical names
- Cadastral parcels
- Administration units
- Transport
- …
Statistics Module
Using external data
Geoportal on mobile devices

- Android
- iOS
- Windows Mobile
75 view services: 59 WMS, 16 WMTS
including INSPIRE services: 6 WMS, 6 WMTS

29 download services: 18 WFS, 6 WCS, 5 ATOM
including INSPIRE services: 6 WFS, 5 ATOM

2 discovery services
including INSPIRE discovery service

Other services: metadata validation, OpenLS, etc.

coordinate transformation service: 1 WCTS

94 external services connected to Geoportal:
81 WMS services and 13 CSW services.
Most popular data sets

- Orthoimagery – 27 480 630
- Cadastral data – 13 777 949
- Topographic raster maps 10k - 4000k – 5 598 580
- VMapL2 50k – 5 371 561
- EuroBoundaryMap – 4 405 777
- General Geographic Database 250k - 4000k – 4 157 765
- Database of Topographic Objects 10k – 3 207 236
- Register on Geographic Names – 2 558 145
- Database of Topographic Objects buildings – 2 074 566

Rest – 26 206 935

29 TB of data!
Visit our websites

www.geoportal.gov.pl

mapy.geoportal.gov.pl