

# Migration of ESRI Server data to an Apache Server with Geoserver and Openlayers.

## Settlement development in Vel'ké Pole, Pila and Radobica, Slovakia

### Introduction

The Geomatics department from the Information Management & Media faculty of the Hochschule Karlsruhe is developing a website about Vel'ké Pole, Pila and Radobica villages, in Slovakia. This website is about the development of these villages regarding roads, settlement, agriculture, forest, river, from 1782 to today, showing their land use, land use changes and settlement development.

The data is loaded from an ESRI sever and this has to be migrated into an open source server.

### Methodology

A research has been made to choose the best alternative open source server (Mapserver, Geoserver, Mapnik...) and open source viewer (Openlayers or Leaflet javascript libraries) for this project.

This alternative must have the same functionalities as the original website. Those functionalities include displaying a layer control with opacity switcher and popup windows showing information about the object which is being clicked on the map.

Layer Control is an existing tool for Openlayers but, there is no function for getting the name from the table and loading the same building on the map. For this reason, a function has been programmed for loading that selected building. This function also do a zoom extent to layer function for showing the selected building on the map.

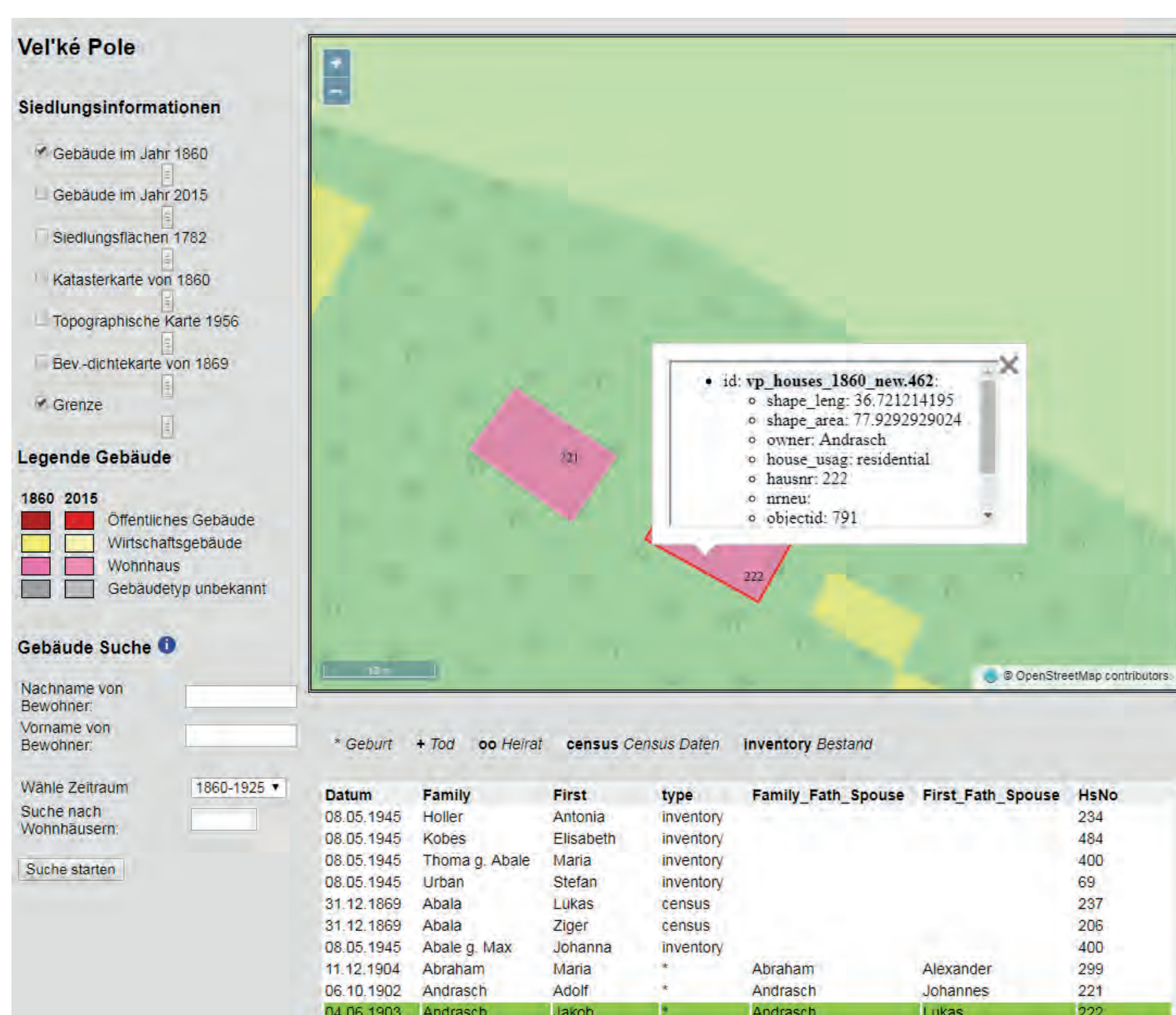
The original website has a query table which is loaded when an user looks for buildings by the owner name or by the building year. This data is loaded from a MySQL database.

### Tools

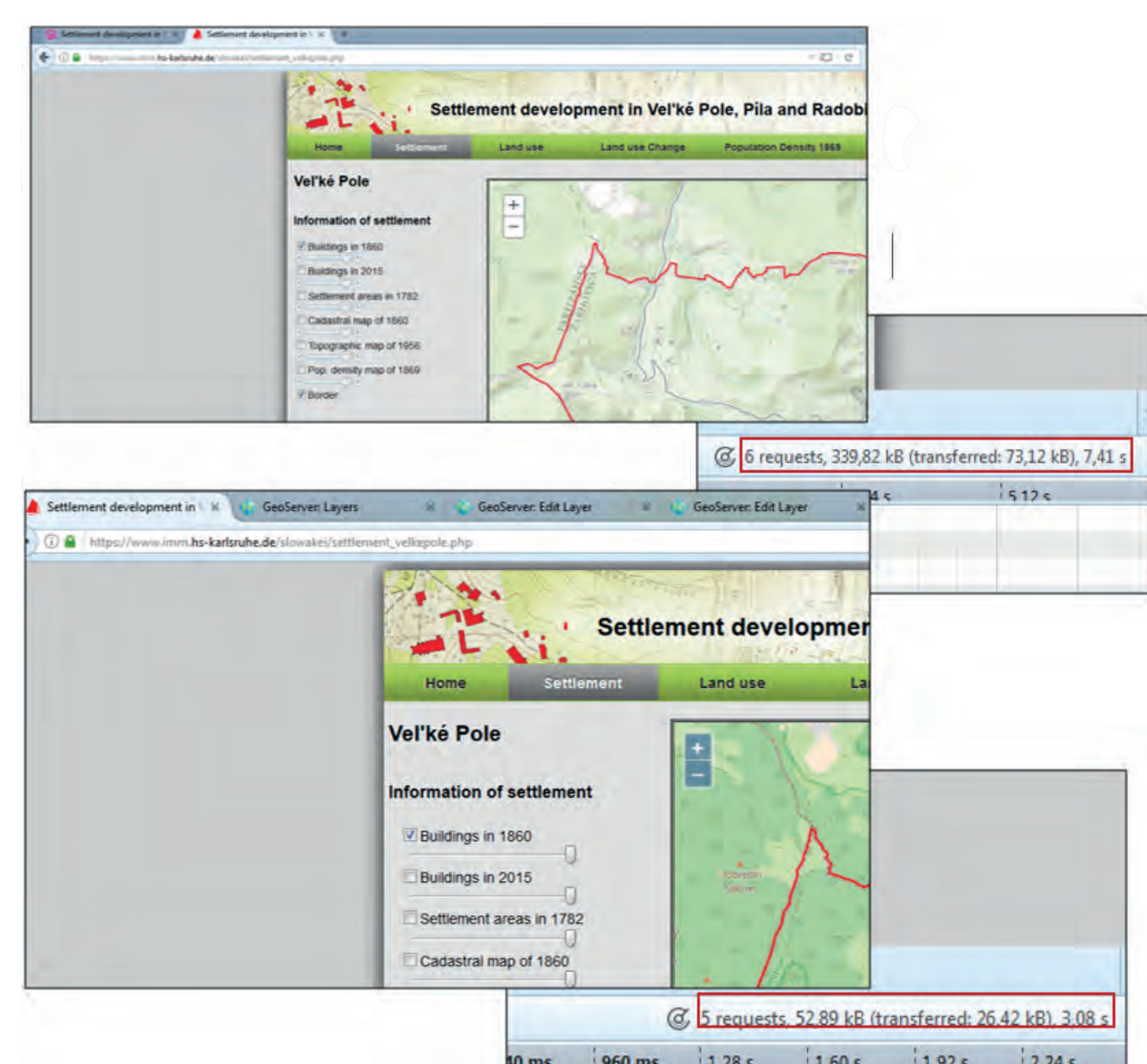
- Apache Tomcat server.
- Geoserver.
- Openlayers 3.
- MySQL data base.
- QGis Desktop.

### Conclusion

Geoserver with Openlayers have been chosen as the best alternative for this project. They have the same functionalities than ESRI website.



Sample of the functionalities used on ESRI working on Openlayers.



Performance comparison between ESRI website and Geoserver with Openlayers website.