Using Gis Technology to Identify New Taxpayers

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SUMMARY

For a longer period in the Republic of Serbia there is a trend that holders of rights over certain cadastral parcels build objects of different types and purposes without respecting existing regulations. Such objects are physically present on the ground and are often fully equipped with utility, but they are not legally exist. Municipality Irig is neighboring town of Novi Sad, which is the administrative center of the Autonomous Province of Vojvodina. The territory of the municipality Irig is located in the famous wine growing and fruit growing region, and also it is bordering with the National Park "Fruška Gora". The municipality belongs to the underdeveloped municipalities, with low income at the local level, so the collection of taxes on real estate a very important item in the municipal budget. Due the reviewing the database of tax authorities, it was determined a small number of real estate and taxpayers. After that municipality Irig is try to find solution for better income from taxes, and one way for that is with using new geoinformation technologies. Municipality Irig use different types of spatial data, and the importance of spatial data infrastructure as a basis for the development is very large. During inspection of the cadastral data and data of taxpayers we have established that municipalities Irig has only 7859 of taxpayers. In this paper we present a method of using spatial data, service-oriented structure and ISO / OGC standards, as a solution to improve the collection of taxes on real estate and that could provide significant funds in the municipal budget. The proposed solution involves the use of existing orthophoto images owned by municipalities Irig and the creation of new orthophotos for the whole municipality using WorldView 2 satellite images. Then alphanumeric data of existing taxpayers with address of each taxpayer is used. In fact that municipalities Irig has no address register, another layer of spatial data is built using existing address from the database of taxpayers and mapping with addresses that are available through the Open Street Map service. In this work is presented a solution that combines all the alpha-numeric and spatial data held by municipalities and new spatial data that have been created to facilitate existing and future new taxpayers. Implemented a three-tier SOA architecture that allows the display and distribution of all the above mentioned data for all users of municipality Irig. Within this paper it is proposed one solutions which is showing how alphanumeric and geospatial data can be used for easier identification of potential new taxpayers.