

Development of GIS Interoperability Infrastructure in Local Community Environment

Leonid STOIMENOV, Aleksandar STANIMIROVIC and
Slobodanka DJORDJEVIC-KAJAN, Serbia and Montenegro

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SUMMARY

Increasing number of geodata producers and users in local community environment have expressed the need for the integration of geodata from distributed information sources and for interoperable GISs. The systems that own this data must be capable of interoperation with systems around them, in order to make access to this data to become feasible. The system also must deal with issues unique to geospatial data. In this kind of environment, the interoperable organizations will be visible, usable and customer focused, whilst still maintaining their own unique branding within the portals through which their content is available.

In our local community environment (city of Nis, Serbia) integrating geodata from various sources increasingly becomes important because of growing environmental concerns, pressures on governments and businesses to perform more efficiently, and simply because of the existence of a rapidly growing body of useful geodata and geoprocessing tools.

In this paper we present research in Geographic Information Systems (GIS) interoperability. We will suggest and discuss possible future technological scenarios for realization of interoperability.

Result of our research activities is realization of a GIS semantic interoperability platform called GeoNis. GeoNis interoperability platform also includes tools and software Web applications/components (as part of development framework called GINIS), enabling exchange of spatial information between organizations in local community environment. Significance of our work is based on usefulness of GeoNis tools and components for realization of interoperable geo-spatial information nodes in local community organizations.