Chapter 75
Provision of Web 2.0 Services by Interoperable GIS-Powered Local Administration Portal Systems

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ABSTRACT

eGovernment for municipalities, a rather mature field when talking about the traditional and plain service delivery to citizens, is nowadays seeking ways to provide more quality based services to the citizens and to become more direct in terms of communication and interaction. In this direction, the most modern implementations are already coming up with the utilisation of various Web 2.0 services in an attempt to become more attractive to the users and to gain a larger user base. However, the introduction of Web 2.0 application to eGovernment portals does not seem to be the solution on its sole; in contrast, when these solutions are accompanied with GIS powered technology, participation and utilisation of those portals seems to reach the anticipated figures, as interoperable GIS systems are able to offer added-value and more "personalised" services to users.

INTRODUCTION

During the last years, as a natural follow-up of the evolution of back office local administration information systems, significant progress has been made towards electronic service delivery to the actual end users and "clients" of public administrations; the citizens. The modern era of eBusiness and electronic service delivery, has touched, apart from the private sector, also the governmental services, not only at the levels of central governments, but also at the levels of regional and public administrations, as the major-

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ity of the by citizens demanded services, lies in their jurisdiction. Therefore, all over this period, eGovernment was a keyword in the ICT agenda, as this new uptrend market was quite open and populated with billions of potential customers (the citizens), and huge investments were placed in this domain, either by private firms or by governments (van Ark, Melka, Mulder, Timmer, & Ypma, 2003), in order to overcome the main obstacles which had to do with system's interoperability, data harmonization and of course re-engineering of the public sector's processes in order to achieve, along with the maximization of the use of ICT, lower lead times and higher service rates.

Nowadays, with eGovernment being a rather mature field, where the issues of the past have been solved up to an extent, public administrations and governments in general are seeking ways of engaging their citizens more in their everyday operation, in order to transform themselves from a single service system, to a collaborative process environment, where citizens are not only seen as clients, but are also taking decisions or can pinpoint various issues as a feedback. This stream is strengthen with the use of various Web 2.0 technologies, that are able to offer the advantages of building consensus amongst the citizens of the same region (Nations). This is far more empowered with the use of Geographic Information Systems (GIS), as the representation of areas is a powerful way to attract citizens to public administration platforms, as through the photorealistic representation not only can they use such platforms better, as they are offered with a life-like user interface, but they also realize that the area shown is a part of their everyday life and therefore they tend to increase their interaction with the various services offered.

In this context, this chapter presents how GIS systems can interoperate with already established public administration portals and with other existing and globally accepted technologies, in order to offer to the citizens, but also to the public officers, various mash-up services that extend from basic application filling (e.g. pinpoint road malfunctions) to highly sophisticated services as public debates, discussions and consultations (about issues such as spatial planning, green IT, advertisement, etc) which can take advantage of GIS technology for presenting the as-is situation, but also for presenting forecasting models based on the decisions that will be drawn.

BACKGROUND

The rapid development in Information Technology is nowadays opening new horizons regarding the facilitation of everyday life of computer users. As the Internet becomes a daily activity of people's life, more and more organizations tend to offer internet based services, replacing their traditional front-desk transactions. Following this trend, governmental organizations, such as local governments, local administration and various public service offices are constantly launching eGovernment portals that are not only offering information to the public, but offer electronic flavoured services as well, by promoting interoperability with the present underlying systems that are currently serving the public (Jaeger, 2003).

Local Administration Entities, such as municipalities (Capgemini, 2006), are topping the list of such organizations, as they have high figures of everyday transactions numbers with citizens and also possess a large number of "clients", which are naturally the inhabitants and the locally based enterprises. The benefits that rise from such a portal are the following (Charalabidis, Askounis, Gionis, Lampathaki, & Metaxiotis, 2006):

- Alternative service channels for the citizens and enterprises such as Internet, Mobile phone access and also voice access with the use of Interactive Voice Response (IVR) systems.
- Optimization of the service levels as the on-site presence becomes unnecessary.