Chapter 14
Towards Electronic and Mobile Government Service Provision for Agriculture

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ABSTRACT

During the evolutionary course of e-government, various initiatives have been taken to correspond to the increasing demand of quality e-government services for citizens, businesses, and public agencies. This chapter describes the Electronic/Mobile Government (EMG) framework, which contributes to the migration of traditional public services to the electronic/mobile (e/m) delivery mode in a coherent and usable format. The framework guides public agencies in modeling and deploying e/m-government services through a cost-effective and comprehensive set of phases. The framework offers transparency, efficiency, interoperability, and effectiveness, and ensures the participation of all stakeholders, which are important requirements for the implementation of e-government systems. It has been applied to a traditional public service of the Greek Ministry of Agriculture entitled "Receiving first installation premium for new farmers". Its application has resulted in implementing e-government services using workflow patterns and Web services, as well as m-government services via the short message service for Greek farmers.

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INTRODUCTION

In the last decade, electronic government (e-government) has gone through a phase of changes, intense reflections and constant development, with citizens and businesses requesting more and quality public services and public agencies making efforts to provide them. E-government refers to government's use of Information and Communication Technologies (ICTs), and particularly Web-based systems to enhance the access to and provision of government information and services to citizens, businesses, government employees and agencies, as well as to improve transparency, effectiveness and efficiency of service delivery in the public administration (Gamper & Augsten, 2003; McClure, 2000). E-government also promises government accountability (Bose, 2004), improved interactions with business and industry, citizen empowerment, and effective government management, which can result in corruption decrement, increased transparency, greater convenience, revenue growth and cost reductions (World Bank, 2003). Therefore, e-government concerns the application of modern ICTs to the full range of government functions from policymaking and policy implementation (including service delivery and cooperating with citizens in democratic processes) to assessing and evaluating their results (Kunstelj & Vintar, 2004), as well as the transformation and development of these functions.

E-government is no longer viewed as the simple provision of information or services via the Internet but as a way of transforming how citizens interact with government and how government interacts with itself. Towards the provision of effective e-government services, many initiatives have been carried out with respect to scope, performance and complexity, audience and level of administration (local, regional, central), providing useful experience and lessons. According to Rose and Grant (2010), one of the critical issues of planning e-government initiatives is user segmentation and needs identification by segment. Thus, e-government should focus on serving the needs and priorities of particular types of users, such as agricultural stakeholders (McGovern, 2007). Particular for the agricultural sector a number of case studies, surveys and actual implementation of e-government services have been undertaken. Some successful examples focused on the agricultural sector are presented in the next section.

Moreover, much consideration has to be given to harmonize service provision with the advanced technological setting, where wireless technologies have unprecedented spread, acceptance and use. Mobile government (m-government) services are considered as an alternative, extensional or complementary provisioning channel, since mobile technologies are gaining popularity to various user segments. However, current e-government initiatives follow different models, which have been adopted by rather generic government/commerce models, based on available budgets, developed ad hoc, and depended on the infrastructure of the country. The presence of such models shows the lack of a common framework of reference.

The objective of this chapter is to describe a framework, entitled Electronic and Mobile Government (EMG), which contributes to the migration of traditional public services to the online delivery mode in a coherent and usable format for the provision of electronic/mobile government (e/m-government) services. The EMG framework can be considered as an extension of the authors' previous work, by taking into account wireless technology impact (Ntaliani, Costopoulou, & Karetsos, 2008; Ntaliani, Costopoulou, Karetsos, Tambouris, & Tarabanis, 2010). The EMG framework gives guidelines to public agencies for modeling and deploying e/m-government services through a cost-effective and comprehensive set of phases. It offers transparency, efficiency, interoperability and effectiveness, and ensures the participation of all stakeholders, which are important requirements for the implementation of e-government systems.

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