Chapter 26
Extension of E-Government:
M-Government Development Capabilities

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ABSTRACT

The emergence of mobile technologies has not only revolutionalized business procedures, but it has also resulted in transformation and reengineering of public service adoption mechanisms in more traditional e-government (EG) systems. Mobile-government or m-government (MG) is a subset of EG where interactions with government services can be conducted through mobile devices. In this chapter, we identify the development of the fundamental capabilities needed to adopt and manage information and communications technologies and to successfully implement citizen-focused MG systems. To accomplish this, we address the feasibility of adopting MG and the fundamental capabilities needed by a government to establish MG.

INTRODUCTION

The massive proliferation and diffusion of information and communication technology (ICT) has changed the concepts, techniques, economies, and cultures of society. Consumers and business organizations have developed an understanding of these changes and have been quick to adopt the full potential of ICT-based systems. Modern governments are typically engaged in planning, creating, organizing, regulating, and administering different sectors of governing systems – such as residence, education, health, commerce and trade, foreign policy, and all other affairs related to citizens and business. Governments also develop and adopt different rules and regulations to maintain established order and to amend existing systems according to the needs of a society – such as security, law and order, agreements with other states, and policies within the state. At the present time, most

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democratic governments realize that, for the sake of sustainability and popularity, citizen-focused service is the main vehicle for good governance, and it is also the main task of the government. Developed countries, among others, are seeking to enhance performance of government services and increase the participation of citizens in public systems through the application of ICT in public administration (Damodaran et al., 2005; Robin et al., 2009). This has resulted in the use of ICT as an essential component of many government organizations (Steyaert, 2000). This revolutionary movement by government organizations towards extensive ICT-based enablers is simply known as electronic government, or E-government (EG). The United Nations Public Administration Network (UNPAN, 2002) has defined EG as: "… utilizing the Internet and the World Wide Web for delivering government information and services to citizens."

Many developed and developing countries are striving to achieve the maximum potential of EG, basically providing access to government web sites through wired technology (Heeks & Bailur, 2007). Many countries are investing financial and human resources in achieving either static, interactive, and/or transactional phases of EG to facilitate the national economy, provide better quality and cost effective services to citizens, ensure global positioning of country images, and enhance citizen participation to establish accountable, transparent, and good governance (Accenture, 2005; Shareef et al., 2010b). However, some countries have completely or partially failed to achieve the precise mission of EG. The most significant reasons for these failures have been:

1. The proliferation of EG has created a digital divide which inevitably prevents the democratic participation of all citizens in the EG system.
2. A majority of citizens do not have enough computer and Internet competence to work with the system and interact with government web portals.
3. In rural areas, due to insufficiency of technological infrastructure, the unavailability of the Internet and computers, underprivileged groups cannot access the EG system.
4. Underprivileged people do not possess social and cultural compatibility with computers that can access the wired Internet system.
5. The wired Internet network and associated computers are costly systems which are not financially manageable for a majority of the people.
6. EG without the capabilities of mobile devices cannot provide time and location sensitive services which are imperative for disaster management, emergencies, terrorism alerts, severe weather forecasts, and certain other real time information.
7. Spontaneous two-way communication is difficult for the wired Internet and PC network.
8. EG has little mobility and it is difficult to access from remote village areas, particularly in developing countries.

All the above barriers to EG do not prohibit the emergence of a system for accessing government services, but rather expedite alternative and supplementary systems that could overcome the barriers to EG. One supplementary system exists in the form of mobile-government (MG) which is accessed through hand held devices such as cellular telephones, personal digital assistants (PDAs), smart phones, laptop computers, and/or other handheld devices. MG is a subset of EG where interactions with government services can be conducted through mobile devices (Archer, 2007; Kumar & Sinha, 2007; Shareef & Archer, 2010a). In fact, MG is viewed by researchers and practitioners as providing the future direction in which governments must move to facilitate the proliferation of widespread access to online government systems. MG can provide many advantages: time and cost saving, instant information