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Acronyms and Abbreviations

| | |
|-------|--|
| ACI | Amman Chamber of Industry |
| ATM | Automated Teller Machine |
| ECC | Economic Consultative Committee |
| EDI | Electronic Data Interchange |
| FIAS | Foreign Investment Advisory Service |
| G2B | Government-to-Business |
| G2C | Government-to-Citizen |
| G2G | Government-to-Government |
| GST | General Sales Tax |
| GTD | Government Tenders Directorate |
| ICT | Information and Communications Technology |
| IDA | Infocom Development Authority |
| INTAJ | Information Technology Association of Jordan |
| IP | Internet Protocol |
| IS | Information Systems |
| IT | Information Technology |
| ISP | Internet Service Provider |
| JCS | Jordan Computer Society |
| JIB | Jordan Investment Board |
| JTC | Jordan Telecommunications Corporation |
| JUSBP | Jordan-US Business Partnership |
| Kbps | Kilobytes per second |
| LAN | Local Area Network |
| Mbps | Megabytes per second |
| MIT | Ministry of Industry and Trade |
| MOGA | Municipality of Greater Amman |
| MOH | Ministry of Health |
| NIC | National Information Center |
| NIS | National Information System |
| OECD | Organization for Economic Cooperation and Development |
| PC | Personal Computer |
| PKI | Public Key Infrastructure |
| REACH | Regulatory Framework, Estate Infrastructure, Advancement Programs, Capital, and Human Resource Development |
| SSC | Social Security Corporation |
| SME | Small and Medium-Size Enterprises |
| TSG | The Services Group, Inc. |
| UMTS | Universal Mobile Telephony System |
| USAID | United States Agency for International Development |
| WAN | Wide Area Network |
| WAP | Wireless Application Protocol |

Executive Summary

Governments worldwide are adopting e-government as a means of improving their services to business and citizens, promoting economic and social development, and improving the effectiveness and efficiency of internal government operations. For Jordan, e-government represents an opportunity to make a major contribution to economic development through assisting Jordanian businesses in reducing their operating costs by providing immediate access to government information and procurement. Similarly, the provision of e-services to citizens represents an opportunity to reduce the complexity of dealing with government administration, making government more transparent and accessible.

Proposed Building Blocks of E-Government

This report focuses on identifying the building blocks for the Government of Jordan to move into the area of e-government service provision. It is a "starting point" that proposes initial e-services, the technology infrastructure to deliver those services, education requirements to ensure effective and efficient services, and the legislative reforms that must be enacted to enable e-government services to be legally acceptable. Experience worldwide shows that fundamental to all of these components is the need to have strategy development and management arrangements in place which can ensure the inter-ministerial cooperation and coordination that e-government demands. The report provides recommendations on structures, roles and responsibilities, and skills required, and a time frame for their establishment. The emphasis is on "service delivery" through a project management approach focused on results.

E-Government and Public Sector Reform

The recent public sector reform initiative has identified a series of measures to modernize the public sector and the e-government actions proposed here will both assist that process and be enabled by it. Within government, IT systems support most of the major operational functions. In general they are sound and effective although the hardware that supports them is not always up-to-date. Government IT staff numbers are very limited but their general technical skill levels are high and provide a good base for the future delivery of e-services. Staff retention now and in the future will continue as a major risk to the delivery of e-government. The National Information Center (NIC) represents a valuable asset for the delivery of e-government. During the last ten years it has not only established considerable communications infrastructure, but also addressed the key issues of setting policies and standards for IT provision. This study acknowledges this valuable contribution and proposes that the NIC should play a major role in e-government development.

The REACH Initiative

Jordan's developing IT sector reflects the Kingdom's desire to participate in the information economy. The REACH initiative represents an opportunity for the IT sector to assist in the delivery of e-government services and this report proposes that a "strategic public-private sector partnership" is developed through consultation, joint ventures and improving IT education across both public and private sectors. The REACH Initiative is now commencing its second phase, and is examining the IT sector's strategy in regard to developments in e-commerce, e-government and e-banking as well as other areas. This report will contribute to these deliberations.

E-Government: The Vision

This report describes a vision for the year 2005 where e-government is a contributor to Jordan's economic and social development by providing access to e-government services and information for everyone in the Kingdom irrespective of location, economic status, IT ability, and education. It represents a major shift in the role of government towards the "client-focused" delivery of services, rather than government as a collector of information solely for its own purposes.

E-Government: Getting Started

The report proposes major programs of work that will yield direct results for government, businesses, and citizens. The programs cover the provision of e-services, the underlying technological infrastructure, and education and legislative reform, and pay special attention to the management arrangements for developing and implementing this report's recommendations. Specific action recommendations supporting this goal are the following:

- Establish and operationalize by January 2001, a National E-Government Taskforce and Technical Coordination Unit to develop a comprehensive e-government master plan to manage the implementation process
- Identify and initiate the first set of Fast-Track Projects to prove and test e-services applications by the end of 2001
- Install the necessary networks and improve communications and access infrastructure nationwide by the end of 2004
- Work with the IT sector to set up a National Center for E-Government Excellence within an existing IT college to deliver courses to the public sector, businesses, and citizens

- Complete a review of laws and regulations requiring change by the end of November 2000, and draft enabling legislation and obtain Parliamentary approval by mid-2001

The five major Building Blocks proposed are divided into realistic, achievable and affordable projects that will yield direct results for government, businesses, and citizens. These are:

- E-Service Applications Identification (through Fast-Track Projects)
- Technology Infrastructure Development
- Legal and Regulatory Framework Development
- Education Reform and Skills Development
- Management and Organizational Structure Development

Moving Quickly

To meet the ambitious time frame of the Government of Jordan we propose an Implementation Plan that begins in October 2000. The design and development work of the five main Building Blocks would begin in January 2001. The National E-Government Task Force will produce a detailed and fully costed e-government master plan by June 2001.

“Small Country, Big Ideas”

Jordan's e-government approach balances early benefits with establishing the foundations for the future. Its early adoption is essential if Jordan is not to be left behind other emerging economies both in the region and worldwide, and reflects the philosophy of "Jordan: Small Country, Big Ideas." Adopting these recommendations will enable Jordan to turn its e-government ideas into reality.

Public-Private Partnership

The success of e-government in Jordan will hinge on the development of a partnership between the government and private sector IT companies. With the NIC playing a large information coordinating role, it is important that Jordan take advantage of its scarce IT resources. Currently, e-government—an IT in general—remains inaccessible for 97 percent of the Jordanian population. E-government initiatives must actively engage the public, and bring electronic services to them via telephone, fax, public kiosks, and internet.

1. Introduction and Background

1.1 Background

Knowledge Revolution

The world is experiencing an information knowledge revolution that is fundamentally transforming the way in which businesses, citizens, and governments operate and interact. Advances in information and communications technologies (ICT)—especially the internet—have sharply driven down businesses' operating costs and are allowing small firms to compete on an even basis with large firms in business-to-business e-commerce. Governments worldwide¹ are adopting e-government as a means of improving their services to businesses and citizens, promoting economic and social development, and enhancing the effectiveness and efficiency of government operations. E-government is a means to achieve citizen- and business-focused governance.

For Jordan, e-government represents an opportunity to make a major contribution to economic development through assisting Jordanian businesses in reducing their operating costs in dealing with government and providing immediate access to government information that will assist their business development. This is achieved through electronic service delivery, electronic procurement and e-commerce. Similarly, the provision of e-services to citizens represents an opportunity to reduce the complexity of dealing with government administration, making government more transparent, accessible, and responsive.

This Report

This report presents a detailed proposal to launch an e-government initiative in Jordan. The report itself is not a comprehensive strategy; rather, it outlines the arrangements and steps required to develop such a strategy. The focus is on identifying the first steps for the Government of Jordan to move into the area of e-government service provision. It is a "starting point" that proposes initial e-services, the technology infrastructure to deliver those services, education requirements to ensure effective and efficient services, and the legislative reforms that must be enacted to enable e-government services to be legally acceptable.

The proposed implementation plan focuses on three aspects crucial for the successful launching of the e-government development process:

- Organizational and institutional structure required to implement the e-government initiative

¹ Leading countries include Australia, Canada, New Zealand, France, Ireland, Netherlands, UK and the USA. Examples of emerging economies where e-government initiatives are advanced include Singapore, India, Malaysia, Brazil and Thailand.

E-government is a means for governments to improve the transparency, accessibility, and responsiveness of their services to businesses and citizens.

This report presents a proposed approach to launch a comprehensive e-government initiative for Jordan.

- Important Fast-Track Projects that can serve as “proving grounds” for new concepts and approaches
- Further analyses required to develop a comprehensive, economy-wide e-government strategy and action plan

The report has been prepared for His Majesty, King Abdullah II, by the **E-Government Task Force** of the **Economic Consultative Committee** (ECC). Members of the task force are leading experts drawn from the private and public sectors:

- Chairman Mr. Fadi Ghandour, President, Aramex,
- Dr. Khaled Toukan, Minister of Education
- Mr. Karim Kawar, President, Ideal Group
- Dr. Yousef Nusseir, President, National Information Center
- Mr. Majdi Yassin, Consultant, The Royal Hashemite Court
- Dr. Issa Al-Otoum, General Manager, Information Center, Prime Ministry
- Mrs. Maha Khatib Zuaytir, Ministry of Planning, Public Sector Reform Unit
- Mr. Nash'at Masri, Foursan Technology Partners
- Mr. Humam Mufti, Deputy General Manager, Specialized Technical Services
- Dr. Maher Mouasher, CEO, SMS
- Mr. Ramzi Abdel-Jaber, CEO, MENAFN.com
- Prof. Safwan Masri, Vice Dean & Professor, Columbia Business School
- Mr. Sharif Zu'bi, Partner, Ali Sharif Zu'bi & Sharif Ali Zu'bi Law Office
- Mr. Imad Ayoub, CEO, Global One Communications

The task force first met on June 1, 2000 . Since that time, intensive consultations and investigations have ensued. In developing the e-government approach, the task force received technical assistance from an expatriate and Jordanian consulting team.²

1.2 What is E-Government?

Definitions

There is no one common definition of e-government, although the term is widely used. Some view e-government primarily as e-commerce—facilitating government procurement on-line. Others view it as a means of bringing the government closer to the common citizen--through the provision of public services on-line. Some view e-government primarily as a technology exercise, integrating individual databases and websites of

² The expatriate team was provided by **The Services Group (TSG)**, consisting of David MacLean, Hugh Doyle, and Luis Vidigal. Jordanian experts were drawn from **Al Jidara Investment Services** (Reem Al Aloul, Awni Nabulsi, Hana Dajani, and Amal Nashif) and **International Business Legal Associates** (Salaheddin al-Bashir, Nisreen Haram, and Wael M. Wahbeh). Technical inputs were provided by Andrea Erdmann, Sutherland Miller and Kishore Rao of TSG.

E-government enables government services to be provided that meet the needs of businesses and citizens rather than being organized for the benefit of the government unit.

government departments. Still others regard e-government as a tool to modernize government and enhance the economic competitiveness of businesses and empower citizens. The reality is that e-government includes most of these aspects and has multiple dimensions.³

Traditionally, government services have been designed from a provider viewpoint to suit the needs of the organization rather than those of the users of the services. An e-government approach necessitates a fundamental shift in this perspective. E-government can offer a business-centric and citizen-centric approach to the delivery of public services.

International best practices⁴ suggest that successful e-government initiatives incorporate two basic principles:

- **Clients’ needs** at the center of they system’s design
- Government services delivered as a **single process**, irrespective of which government institutions are involved (removing organizational boundaries)

The needs of citizens, businesses, and other users of government services vary greatly, from the provision of simple information to full transaction services. These different stages of e-government are shown in Table 1.1 above.

Table 1.1: Different Stages of E-Government

| | |
|----------------------|---|
| Transparency | Information Services <ul style="list-style-type: none"> ▪ Institution promotion ▪ Lists of contacts ▪ Useful information on everyday life ▪ Download forms and documents ▪ Information search tools ▪ Multi-dimensional search on public databases |
| Openness | Communication Services <ul style="list-style-type: none"> ▪ Institutional e-mail ▪ Personal e-mail ▪ Discussion forum |
| Effectiveness | Transaction Services <ul style="list-style-type: none"> ▪ Electronic submission of forms ▪ Electronic payment |

At its simplest level, e-services involve the coordination of information from a variety of different sources within government presented in a way that reflects users’ needs and can be simply and logically navigated. Typically this information will answer questions such as “What do I have to do?” “Where do I have to go?” “When are government offices open?” “What do I need to provide in terms of information and supporting documents?” and, in the case of official documents issued by government, “What will it cost me?”

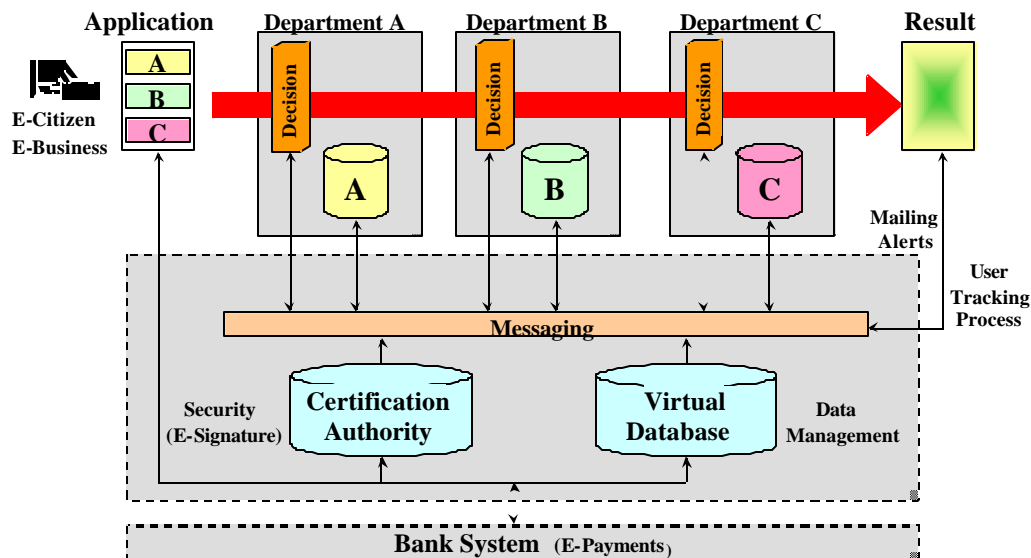
Full e-government includes the ability to submit transactions on-line and make payments electronically where they are required. Examples of this include filing an electronic tax return or selling goods and services to the government—where the whole process, including contract letting, was performed electronically.

At its simplest level, e-services involve the coordination of information. Full e-government is the ability to effect transactions and make payments electronically.

³ Janet Caldwell, “The Quest for Electronic Government: A Defining Vision,” Institute for Electronic Government, IBM Corporation, July 1999.

⁴ International best practices are discussed in Chapter 3 of this report.

Figure 1.2 Single Forms / Single Process



Single Process

Figure 1.2 above illustrates a model of the concept of e-government as a single process, and the components needed to achieve the desired results. Seen from a business or citizen point of view, it involves the completion of a single form on-line with immediate validation of the data entered. The form would be transmitted electronically to government institutions where computer systems would check the authenticity of the sender's e-signature by referring to an internal or external "certification authority." This authentication check would be undertaken in real time.

If the checks are successful, the government system would send a sub-transaction to the ministries or institutions involved in the approvals and decision-making process for authorization to proceed. Only data from the form necessary for that each individual ministry would be sent to that stakeholder. Common data such as name and address and other personal or business details would be replicated and passed to the stakeholders to automatically update their databases. This has the benefit of ensuring data is captured only once and is consistent across the various ministry databases.

Assuming all the necessary approvals are secured, the e-government system would provide a single window response to the end user, including the downloading of documents for printing at the user end or advising the user where to collect any documents that might need secure printing (e.g. registration certificates, driving and vehicle licenses).

The objectives of e-government vary, reflecting individual national needs, priorities, cultures, government structures, and technologies.

Objectives

The objectives of an e-government program vary from country to country, reflecting individual national needs, priorities, cultures, government structures, and technological endowments.

Table 1.3 at the right shows the objectives of various governments that currently deliver electronic services.

The individual objectives of each country determine in large part what government services or applications to emphasize, the choice of technologies to access those services, and the institutional arrangements used to implement the chosen strategies.

The diversity and breadth of government services require an emphasis on a core number of services areas that have the greatest impact and are of the highest value to consumers. In general, these can be organized into the following categories:

- **Government-to-Business (G2B)**—Transactions and interactions including procurement, taxation, and licensing
- **Government-to-Citizen (G2C)**—The “birth to death” range of citizen services including civil registration, health, education, and municipal services
- **Government-to-Government (G2G)**—A variety of intra-governmental transactions such as inter-agency payments, procurement, standardized forms, and permits

Basic Architecture

The basic architecture of e-government systems worldwide shares a number of components. These include:

- **Portal**—An integrated government web site acting as a gateway for citizens, business users to access a range of services. The functionality of the portal is scalable with needs and use.⁵
- **Access devices**—Technologies used to access e-services including telephones, PCs, kiosks, digital TV, Wireless Application Protocol (WAP) phones, and UMTS (Universal Mobile Telephony System)⁶

⁵ Many countries have two web-based portals—one oriented to citizens and another providing services to businesses. A good example is Singapore.

⁶ The access devices have to be cost-effective and available. For example, the cost of accessing the internet is a major factor determining the potential impact of e-government initiatives.

Table 1.3: Various Objectives for E-Government

| Country | Primary Objectives |
|-----------|---|
| Australia | ▪ Enhance economic competitiveness and government service delivery |
| Dubai | ▪ Reinvent government by enhancing the quality, convenience, accessibility and speed of government services |
| Portugal | ▪ Democratize government; emphasis on citizen services |
| Singapore | ▪ Enhance citizen services ▪ Stimulate IT capacity development |
| UK | ▪ Enhance services to citizens and businesses; modernize government |

The basic architecture of e-government systems includes a single web-based portal, government intranet and extranet, and an enabling policy framework.

- **Government intranet**—Connects government departments, links web sites, and integrates internal databases
- **Government extranet**—Connects government units, citizens, and businesses with a variety of external stakeholders including libraries, educational institutions, and others
- **Policy framework**—Ensures the credibility, transparency, and privacy of the transactions through a comprehensive policy framework. Includes policies governing access, e-commerce, accountability, and interoperability. (See Box 1.4)

Box 1.4: E-Government Policy Necessities

Access

Standards for user interface, internet, web design, architecture, and access technologies

ECommerce

Authentication, security, privacy, electronic payment, encryption, and delivery channels

Accountability

Audit standards, public disclosure, digital archives, transparency, and data sharing

Interoperability

IP standards, GSI integration, authentication, and information management

Potential Benefits

Numerous studies have shown that e-government can provide a variety of benefits to citizens, businesses, suppliers, and other government institutions.

For **citizens**, e-government offers the possibility of providing feedback and receiving customized service. E-government also benefits citizens who cannot—or choose not to—access government services electronically, by shortening delivery times at traditional channels.⁷ Among the most important potential benefits **businesses** are government e-commerce and e-procurement initiatives. These can provide huge cost savings and lower transaction costs for most businesses. E-government also offers potential benefits for **government**. By integrating databases and networking web sites and other gateways, government institutions can realize important efficiency gains and work more effectively with each other. Government intranet technologies permit better integration of data collection and information dissemination efforts aimed at citizens and businesses. Extranet connections to non-governmental bodies and others permit government institutions to leverage their resources and provide better services to their clients.

The positive impact of ICT on the private sector has been well-documented. According to the OECD, the cost savings from the internet and other ICTs have been significant for electronically delivered products such as financial services, travel, and software.⁸

⁷ “Digital government offers the promise of automating volumes of routine transactions (broadly defined to include applications, filings, and routine requests) while focusing public employees on those interactions that require individualized attention.” Washington State Digital Government Plan, Release 1.0.

⁸ For the airline industry, costs have been reduced from US\$ 8 to US\$ 1, resulting in savings of 87 percent. In the banking industry, costs have been reduced from US\$ 1.08 to

E-government can provide significant cost savings and other benefits to citizens, businesses, suppliers, and government institutions.

There is increasing evidence of the **cost impact** of e-government initiatives, although this is less well documented. In the United States, for example, early studies indicate that state governments are saving up to 70 percent by moving services on-line compared to the cost of providing the same services over the counter.⁹ In Washington state, government e-procurement systems are saving an average of 10 to 20 percent in terms of material and purchase costs. In Alaska, on-line vehicle registration costs have dropped from US\$ 7.75 to only US\$ 0.91 using an on-line system.¹⁰

In Brazil, 8 out of 10 people are filing their income tax returns on-line. In India, Citizen Services Centres have drastically reduced processing times and attendant corruption.

Internationally, the experiences of Brazil, Morocco, and India are instructive. In Brazil, where e-government is relatively advanced, 8 out of 10 people are filing their income tax forms on-line this year.¹¹ In Morocco, integration of the databases of the Ministries of Finance and Planning has yielded significant efficiencies; the time required to prepare the national budgets has been cut in half. In India, the newly established Citizen Services Centres in the state of Andhra Pradesh have significantly reduced processing times and attendant corruption.¹²

1.3 The Jordanian Context

This study was conducted in the context of wide-ranging changes in Jordanian economic policy and governance concepts. This is in keeping of the pursuit of His Majesty King Abdullah II's vision of transforming Jordan into a knowledge-based economy, and streamlining government to improve public services and performance.

Ongoing Initiatives

Currently, a number of ongoing initiatives exist to achieve this overarching vision. Development and successful implementation of an e-government strategy is inextricably linked with the implementation of these and related programs. These include:

- **The REACH Initiative**—A comprehensive strategy of JCS and INTAJ to develop an internationally competitive IT industry in Jordan. This strategy was the first to identify the development of e-government as

The e-government initiative in Jordan is being undertaken in the context of wide-ranging changes in economic policy and governance initiated by His Majesty, King Abdullah II.

US\$ 0.13, a savings of 89 percent. Using the internet for electronic bill payment reduces costs from 71 to 67 percent. For life insurance policies, the cost savings is 50 percent. For the software industry, on-line delivery reduces costs by 97 to 99 percent. See, OECD, *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*, 1999.

⁹ Janet Caldwell, "The Quest for Electronic Government: A Defining Vision," Institute for Electronic Government, IBM Corporation, July 1999.

¹⁰ Washington State Digital Government Plan, Release 1.0, page 7.

¹¹ UN General Assembly Economic and Social Council, "Report of the High-Level Panel of Experts on Information and Communication Technology," 22 May 2000.

¹² InfoDev, "The Networking Revolution—Opportunities and Challenges for Developing Countries," Global Information and Communication Technologies Department, World Bank, June 2000.

one of the measures that would also stimulate growth of the IT services industry through a partnership between government and the private sector.

- The **National Economic Forum**¹³—Aimed at raising economic growth and raising per capita income through reform of macroeconomic policy, privatization schemes, and strengthening and developing the institutional framework including public sector reform and review of various legal issues.
- **Public Sector Reform**¹⁴—Study that recommended actions to improve openness and accountability, public services, financial management, public management and skills, and IT utilization to enable much needed modernization of the public administration.

Challenges

Jordan faces a number of challenges in initiating an e-government initiative. The most important of these include the following:

Low level of internet penetration—The low level of internet penetration in Jordan—0.7 percent of population in terms of account subscribers and 1.9 percent in terms of users—is a significant barrier to the introduction of e-government, citizen-oriented services. The relatively high cost of internet access and telecommunications services exacerbates this problem.

Infrastructure constraints—There are significant information and communications technology (ICT) barriers in Jordan today. This includes the high cost of telecommunications services and lack of an adequate civilian telecommunications “backbone” network nationwide.

Digital Divide—A digital divide exists in terms of geography (most users are clustered in Amman, Irbid and Zarqa), age (users tend to be young), skills (significant portions of the population lack computer skills), gender, and income. In the business sector, the inequalities in terms of ICT are even more pronounced; most small and medium-size businesses that account for the vast majority of Jordanian enterprises lack computer skills and ICT technologies.

Privacy versus security concerns—There are legitimate concerns about the citizens’ rights to privacy versus the State’s national security concerns. On the one hand, there are concerns that the government can know too much about people and could use that information inappropriately. On the other hand, there are government concerns that unfettered access to information could undermine national security and therefore social stability.

Jordan faces numerous challenges including low internet penetration levels, a digital divide, privacy versus security concerns, and limited public sector reform.

Like many countries, the Jordanian digital divide is in terms of geography, age, gender, income, and skills. There are also major differences between SMEs and large firms.

¹³ Dead Sea Retreat recommendations

¹⁴ The Public Sector Reform recommendations were prepared by an ECC task force and approved by His Majesty, the ECC, and the government.

Limited IT skills—There is a fundamental lack of computer literacy in Jordan that would limit the participation of citizens, businesses, and government institutions in e-government.

Limited public sector reform efforts—Public sector reform underpins the move towards offering electronic government services. While e-government can simplify and expedite the provision of government services, it is not a substitute for public sector reform. In most cases, there is little point in simply shifting services online if the basic procedures are cumbersome and unclear. The limited state of public sector reform efforts in Jordan mean that e-government initiatives need to be tightly focused on specific service areas. Table 1.5 below highlights the public sector reform barriers to e-government

Table 1.5: Public Sector Reform: E-Government Barriers and Prerequisites

| Public Sector Reform Pillar | Current Barriers to E-Government | Likely E-Government Requirement |
|--------------------------------------|--|---|
| Openness and accountability | <ul style="list-style-type: none"> Decision making process on standard transaction subject widely to varying interpretation by officials | |
| Improve public services | <ul style="list-style-type: none"> Lack of information about services and where to obtain them Information not easily accessible Lack of clarity as to who provides services (especially on transactions) Complex processes and procedures Need to contact many different points/entities to complete single logical transaction) | <ul style="list-style-type: none"> Simplification of some current procedures for transaction Shift from administrators view of clients needs to a “client view” Shift to a “service” culture |
| Improve financial management | <ul style="list-style-type: none"> Current investment approach to IT investment lacks flexibility | <ul style="list-style-type: none"> Modern investment appraisal approach to financing of e-government projects and infrastructure |
| Improve public management and skills | <ul style="list-style-type: none"> Culture largely reactive not proactive Lack of IT planning and management skills and experience IT planning largely “technology -driven” | <ul style="list-style-type: none"> Culture based on working together across traditional boundaries. Creation of “business-driven” IS Strategies Development of IS management skills and experience |
| Improve IT utilization | <ul style="list-style-type: none"> Lack of data and information sharing between Ministries and departments (with some notable exceptions) IT literacy skills highly variable from Ministry to Ministry Use of computers in the workplace highly variable from Ministry to Ministry | <ul style="list-style-type: none"> Government employees with a high degree of computer literacy (front-line desk level) Culture of information sharing between organizations |

Lack of an enabling legal framework—As discussed in the following chapter, the legal and regulatory framework to enable a full range of e-government services does not currently exist in Jordan. E-commerce is deterred by the lack of adequate legislation and implementation capacity.

Lack of awareness—The general population and the government and business sectors currently have very limited idea about what e-government is and how to benefit from it.

Implications for Jordan

There are several important implications of these issues for the development of an e-government initiative in Jordan. These include:

- **Maximize accessibility for businesses and citizens.** As much as possible, all citizens and businesses must have equal opportunity to gain access to e-government services.
- **Guarantee credibility and transparency.** Jordan needs to balance privacy and security issues and ensure the transparency of transactions and use of information.
- **Focus efforts on the most promising areas.** The approach should emphasize government services that are the most advanced and have the greatest demonstrative impact.
- **Maximize freedom of choice and participation.** The approach should maximize delivery mechanisms and access channels for e-government. Traditional over-the-counter methods to access government services, however, need to be maintained and improved
- **Provide cost savings to government, businesses, and citizens.**

E-government is not a substitute for public sector reform, in terms of improving government services and simplifying policies and procedures.

1.4 Report Structure

Following this background chapter, the remainder of the report is structured as follows:

- Chapter 2 evaluates the readiness of Jordanian businesses, citizens, and government institutions to participate in an e-government initiative.
- Chapter 3 presents a summary of international “best practices” in e-government and draws lessons for the development of such a program in Jordan.
- Chapter 4 outlines the proposed approach to successfully launch an e-government initiative in Jordan.
- Chapter 5 presents a detailed implementation plan to implement the proposed initiatives, including a framework to monitor results.