Rapid and revolutionary changes in technology have created an increasingly information-centric global economy, where knowledge has become a key factor in competitiveness. The challenge for many governments today is to provide opportunities for citizens and businesses to actively participate in the global knowledge-based economy. eGovernment is believed to play a fundamental role towards this end.

Although the demand for e-government arose through the need to achieve greater operational efficiency and respond better to citizen demands for improved public services, increasingly, e-government has as much to do with economic reform as with administrative reform.

1. **What is e-Government?**

E-Government refers to the use of information and communications technologies (ICT) to improve the efficiency, effectiveness, transparency and accountability of government.

E-Government can be seen simply as moving citizen services online, but in its broadest sense it refers to the technology-enabled transformation of government - governments’ best hope to reduce costs, whilst promoting economic development, increasing transparency in government, improving service delivery and public administration, and facilitating the advancement of an information society.

- **Reducing Costs:** Putting services on-line substantially decreases the processing costs of many activities compared with the manual way of handling operations. Efficiency is also attained by streamlining internal processes and by enabling faster and more informed decision making.

- **Promoting Economic development:** Technology enables governments to create positive business climates by simplifying relationships with businesses and reducing the administrative steps needed to comply with regulatory obligations. There is a direct impact on the economy, as in the case of e-procurement, which creates wider competition and more participants in the public sector marketplace.

- **Enhancing Transparency and Accountability:** E-Government helps to increase the transparency of decision-making processes by making information accessible - publishing government debates and minutes, budgets and expenditure statements, outcomes and rationales for key decisions, and in some cases, allowing the on-line tracking of applications on the web by the public and press.

- **Improving Service Delivery:** government service delivery, in the traditional process, is time consuming, lacks transparency, and leads to citizen and business dissatisfaction. By putting government services online, eGovernment reduces bureaucracy and enhances the quality of services in terms of time, content and accessibility.

- **Improving Public Administration:** e-government administrative components, such as a computerized treasury, integrated financial management information systems, and human resource management systems, lead to greater efficiency in public administration. Features include the integration of expenditure and receipt data, control of expenditure, human resources management, intelligent audit through data analysis and the publishing of financial data.

- **Facilitating an e-Society:** One of the main benefits of an eGovernment initiative consists of the promotion of ICT use in other sectors. The technological and management capacities required for eGovernment administration encourage, in turn, the development of new training
courses and modules in schools and universities trying to supply the required skills and capabilities to the market

E-Government usually describes relationships across 3 modalities:

1. **Government to Citizen:** deals with the relationship between government and citizens. G2C allows citizens to access government information and services instantly, conveniently, from everywhere, by use of multiple channels.

2. **Government to Business:** consists of e-interactions between government and the private sector. The opportunity to conduct online transactions with government reduces red tape and simplifies regulatory processes, therefore helping businesses to become more competitive.

3. **Government to Government:** Governments depend on other levels of government within the state to effectively deliver services and allocate responsibilities. In promoting citizen-centric service, a single access point to government is the ultimate goal, for which cooperation among different governmental departments and agencies is necessary. G2G facilitates the sharing of databases, resources and capabilities, enhancing the efficiency and effectiveness of processes.

Many World Bank client countries are in the process of designing and implementing e-government strategies, programs and projects, for which assistance in this area, both in terms of knowledge and financial support, is increasingly demanded. Many countries have already requested Bank support and several projects are under preparation or implementation.

2. Is e-Government appropriate for developing countries?

Although it is early to judge the macro impact of e-Government on overall development and towards achievement of the Millennium Development Goals (MDGs) in developing countries, there are several examples of nation/state wide applications that have delivered significant benefits, with moderate investments. Evaluations of some e-Government projects conducted by independent agencies indicate that costs of accessing services by citizens have been reduced, corruption has lessened and Government tax revenues have grown.

Since the potential impact on reform goals that the World Bank pursues in many developing countries has been demonstrated, task managers and government clients should consider e-Government investments to create new opportunities for building institutional capacity and efficient, citizen-centric service delivery. Early experience shows that e-Government can be developed in stages, with projects suitable for different levels of technology preparedness in a country.

3. Is e-Government just about the Internet?

E-Government is, above all, a process of change in the way government shares information and delivers services to achieve greater transparency and convenience in transacting with citizens and businesses.

E-Government uses ICT to diversify delivery channels and make back-office work more efficient. The Internet is the most powerful and popular means of delivering e-Government. However, services may also be delivered through:

- Conventional telephone - call centers, automated voice responses, FAX on
demand of forms and information;

- Personal Computers and the Internet - from simple display of information to highly sophisticated interactive services with credit card payment;

- In an assisted mode through integrated service delivery centers in convenient locations, rural Internet kiosks and cyber cafes.

- Mobile digital telephony and messaging technology

- By any combination of ICT and manual procedures, for example providing information on the web, ordering and paying by mobile telephone, and delivery at a community center.

Diversifying delivery channels extends the services to as many citizens as possible and creates competition between channels, improving the quality of delivery. Access can also be expanded creatively; for example, where individual personal computer ownership is low, access to computers may be made available through a post office, or cyber cafes. Use of existing telephone and FAX technology can be combined with access to Internet through an intermediary for a small fee.

4. Are developing countries already developing E-Government capabilities?

Yes. Countries such as India, Sri Lanka, Brazil, Chile, Romania and South Korea are only a few best practice examples.

Two illustrative case studies follow:

Andhra Pradesh, India. It is the State Government policy to use information technologies to foster “Simple, Moral, Accountable, Responsive, and Transparent Government”.

The following state-wide applications deliver a host of on-line services to citizens, businesses and internal employees.

Computer Aided Registration of Deeds (CARD): A simplified and decentralized digital property registration system through 200 Sub-Registrars’ offices across the state. The system simplifies and expedites the registration process, provides certificates for non encumbrance and assists in market valuation of properties. Nearly 5.7 million documents have been registered; 3.6 million encumbrance certificates have been issued in four years.

E-Seva: On-line processing of payments, issuance of licenses and certificates from different agencies at central, state and municipal levels under one roof at conveniently located centers in more than 200 cities and towns. Three million transactions were processed per month in 2004.

FAST: Online renewal of driver’s license and motor vehicle registration

SMARTGov: Work flow based paperless central secretariat.
**Mexico**, e-Government is firmly a part of Mexico's future:

The Mexican Government has registered over 500 government domain names. These sites provide information on government services, with data and references to other sources of information.

The Government provides information on competitive procurement opportunities of the 33 local governments through its Compranet service and is additionally able to offer several on-line services for contractors and suppliers, enabling them to search for information on their contracts and payments.

Citizens can access public registry records; e.g. obtain copies of birth and property certificates and accept credit card payments

The sites also contain information that saves time and paperwork when dealing with government procedures

**6. What are the benefits of e-Government?**

**Benefits include:**

- Aligning ICT-investments with international technical and business standards
- Simplifying and integrating government services;
- Drastically reducing the time the citizens and businesses spend obtaining/submitting information from/to the government;
- Increasing government transparency and anti-corruption;
- Improving government finances through enhanced revenue collection and cost reduction
- Improving the business environment in the country for private sector development and to attract foreign direct investment.
- Upgrading of government staff skills
- Facilitating ICT awareness and skills-training within the larger populace.

.................and potential risks?

Just like any other ICT project in the private or public sector, e-Government projects also carry a risk of implementation failure. Overly ambitious project scale and scope, lack of political will to transform Government functioning, and inadequate capacity to design and implement solutions, are some of the main reasons for failure. If processes are simply automated without appropriate reforms and safeguards, applications will fail to deliver the intended benefits, and can provide opportunities for electronic fraud. It is therefore important to assess the ICT infrastructure, human capacity, administrative maturity and motivation for reform in a country in order to define the scope of e-Government projects/programs.
7. What are the costs of e-Government and who pay?

The costs of implementing e-Government can vary greatly with the scope of the project/program. The cost components are: networking infrastructure; IT hardware and software; application design, development and implementation; training; and maintenance of equipment. E-Government necessitates the re-engineering of business processes in order to realize efficiency goals – the management of change is, therefore, an important element requiring effort and expenditure.

While online service delivery can be more efficient and less costly than other channels, cost savings and service improvements are not automatic. Most eGovernment activities will need to be made available offline as well as online. While there can be savings even in this mode (for instance in implementing a front-office/back-office approach, streamlining business processes within government, etc.) the necessity for parallel offline and online operations in the initial phase will mean some additional-costs.

Social costs must also be considered as e-Government may affect jobs, work relationships and the relationships the government has with its citizens. While taking advantage of technology, care must be taken not to deteriorate access for special groups.

8. What about security and privacy issues?

e-Government must ensure that information systems are appropriately protected and individual rights are respected. Almost every successful e-government project is a case example in building trust, involving two issues of special concern to any online service:

- **Privacy** -- Privacy is one of the most important issues facing the use of online services, and Governments must be responsible custodians of the enormous amounts of personal information they hold. Privacy must be addressed in the planning and design of e-government systems since it is much harder to interject privacy protections after a system is built.

- **Security** -- protecting e-government sites from attack and misuse is costly, but must be addressed in the design phase, as security breaches can shatter public trust in e-government.

9. How do Governments make e-Government happen?

In some countries e-Government applications have been built bottom up through the initiatives of political leadership or civil servants. Centrally coordinated programs are then set up to scale up such applications and work towards interoperability and integration of electronic service delivery. Other countries have had a more planned and coordinated approach to the development of e-Government, starting with a vision, strategy and an implementation plan.

e-Government initiatives can be implemented at the federal/central or local government level. In general, coordination will be required to help in the identification of crosscutting issues and the creation of appropriate strategies to address them. Such strategies should include details of departmental and sector programs to transform their businesses in accordance with an overall e-Government strategy, including:

- Examination of user needs and requirements
- Plans to converge with standards and frameworks;

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• Plans to make services accessible for citizens and businesses;
• Plans to deliver internal processes electronically, e.g., via Internet for “joined up” services;
• Analysis of business requirements and benefits of applying ICT;
• Examination of existing information flows and transactions between departments, citizens, businesses, and other public sector and community bodies.
• A system of incentives and policy frameworks to balance central direction with departmental ownership
• Process reform to gain efficiency and establish transparency.
• Strategies to involve the private sector.

5. Can the World Bank help clients with e-Government?

The World Bank can help client countries initiate, design, and implement e-Government projects. Its role can include:

• Financing e-Government projects and components;
• Supporting e-Government approaches through policy advice, strategy formulation, and operational support;
• Establishing a forum for knowledge sharing on e-Government including via videoconferencing;
• Helping clients to create the necessary infrastructure for e-Government;
• Providing technical assistance;
• Promoting the use of information technology in public sector reforms.

e-Government planning can start at any level of development, but it is important to align ICT investments with e-Government best practices and standards, thereby avoiding future complications that may arise due to incompatible technologies.

10. Where can I find out more about e-Government?

For more information about e-Government, please contact us at:
egov@worldbank.org
Or continue browsing the website:
http://www.worldbank.org/egov