

The Status of E-government in South Africa

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Abstract: E-government in South Africa is at a formative stage and a snapshot of progress is taken by asking the 10 questions posed by the “Roadmap for E-government”. There is a strong political will driving the vision and the readiness assessment discusses legal frameworks, governance models, infrastructure and human resource development as key success factors. Alignment of projects with the vision is demonstrated through a number of case studies showcasing innovation in service delivery and customer focus. The crucial issues of corruption, human resource development and monitoring and evaluation are highlighted.

1. 1. Introduction

In the developing world the use of ICTs have been identified as important tools for reform and transformation and for leveraging second world economies up to first world economies. Government plays a critical role in supporting and enabling this process and in the creation of a socially inclusive information society.

The World Summit on the Information Society (WSIS) plan of action foresees the formation of a people-centred, inclusive and development-oriented Information Society, where everyone can access, utilise and share information and knowledge. South Africa has made great strides towards meeting the commitments of the WSIS Declaration of Principles and Plan of Action to which the country is a signatory.

This paper describes the status of E-government in South Africa and takes a look at the progress of e-government initiatives by asking the 10 questions posed by the “Roadmap for E-government” developed by the Pacific Council on International Policy. The purpose of this exercise is to build on lessons learned in the implementation of E-government in the developing world and to highlight issues and challenges that government should address.

2. What is E-government?

Defined broadly, e-government is the use of ICT to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. E-government has emerged beyond electronic service delivery and is part of the ongoing

reform and transformation of government enabling participatory governance and partnerships to improve efficiency and effectiveness [1].

E-government is about transforming government to be more citizen-centred. Technology is a tool in this effort. E-government successes require changing how government works, how it deals with information, how officials view their jobs and interact with the public. E-government is also within the South African context split up into different sectoral areas such as e-health, e-education, SMME (Small and Medium Enterprises) and local content.

Achieving e-government success also requires active partnerships between government, citizens and the private sector. The e-government process needs continuous input and feedback from the “customers”— the public, businesses and officials who use e-government services. Their voices and ideas are essential to making e-government work. E-government, when implemented well, is a participatory process.

3. The Roadmap for E-government in the Developing World

The Roadmap, developed by the Pacific Council on International Policy [1], seeks to leverage e-government lessons already learned in the developing world to maximize the chances of success for future projects. The “Roadmap for E-government” highlights issues and problems common to e-government efforts. These 10 questions provide indicators to guide e-government implementation.

The Roadmap presents ten questions that e-government practitioners from around the world (including South Africa) believe are crucial to successfully conceiving, planning, managing and measuring e-government. The Roadmap Working Group suggests that e-government officials ask themselves these ten questions before they embark on the e-government path.

The 10 Questions:

1. Why are we pursuing e-government?
2. Do we have a clear vision and priorities for e-government?
3. What kind of e-government are we ready for?
4. Is there enough political will to lead the e-government effort?
5. Are we selecting e-government projects in the best way?
6. How should we plan and manage e-government projects?
7. How will we overcome resistance from within the government?
8. How will we measure and communicate progress? How will we know if we are failing?
9. What should our relationship be with the private sector?
10. How can e-government improve citizen participation in public affairs?

4. How does E-government in South Africa measure-up to the Roadmap?

4.1 Why are we pursuing E-government?

The South African government understands the need to develop an Information Society and harness the power of ICTs for economic and social development for the benefit of the country and its citizens. Government understands the need for reform and the transformation of its core activities to make processes more effective and efficient and more citizen oriented. The need to manage information, internal functions as well as serving business and citizens is core to their strategy. E-Government is part of Public Service transformation guided by the principle of public service for all and Batho Pele.

Recognising that this transformation is not easy, government has identified the need for change in how officials think and act, how they view their jobs how they share information between departments, with businesses with citizens and with their own employees. It requires re-engineering the government's business processes, both within individual agencies and across government.

E-government and ICT are seen as elements of a larger government modernization program. It is well understood that simply adding computers or modems will not improve government, nor will only automating the same old procedures and practices. Making unhelpful procedures more efficient is not productive. Focusing only on the computers will not make officials more service-oriented toward government's "customers" and partners. Leaders should think about how to harness technology to achieve objectives for reform. ICT is an instrument to enable and empower government reform.

4.22 Do we have a clear vision and priorities for e-government?

In South Africa, the Vision 2014 describes an inclusive Information Society, one in which the use of ICTs will be harnessed to ensure that everyone has fast, reliable and affordable access to information and knowledge that will enable them to participate meaningfully in the community and economy [2].

The Vision further aspires to move the country from being a consumer of ICT products and services to being a major player in the production and innovation of these products and services. The cornerstones of this Inclusive Information Society are a vibrant and thriving ICT sector, an enabling policy and regulatory environment, accessible ICT infrastructure and broadband connectivity, and an appropriately skilled and knowledgeable citizenry.

The vision for e-Government expressed in the approved E-Government Discussion document entitled, "Electronic Government, The Digital Future: A Public Service IT Policy Framework", published in 2001 by the Department of Public Service and Administration recommended that an e-Government initiative should address three main domains:

- E-government : the application of IT intra-governmental operations (Government to government or G2G)
- E-service : the application of IT to transform the delivery of public services (Government to Citizens or G2C)
- E-business : the application of IT to operations performed by government in the manner of G2B transactions (e.g. procurement)

The vision for achieving e-Government in South Africa is to render services around life episodes of the citizens that follow a series of events, from cradle to grave. Such services must be accessible to all citizens anytime, anywhere and through different access devices and media. All stakeholders – government and non-government - were invited to participate in defining the vision. Continuous buy-in and participation from critical role-players is recognised as a key priority. This is achieved through a series of intergovernmental consultative workshops and working together with the Government Chief Information Officer Council.

The Department of Home Affairs promote the vision on re-defining the relationship between government and citizens. A smartcard-ID is under development that focuses on the automation of finger prints and the development of an electronic Population Registry. Through its Home Affairs National Information System (HANIS) project citizens can access birth and death registration forms online. To the extent that increased transparency, accountability and predictability (of rules and procedures) are made priorities, e-government may offer a weapon against corruption.

The vision of e-government is the optimisation of services so that government can achieve its goals. One especially sensitive issue, which may prevent or delay service delivery, is the issue of fraud. Within the e-government policy and strategic framework, there is no particular focus at how government will address the issue on non-delivery of services or inefficient service delivery to citizens. Although there is no explicit reference to corruption in the South African E-government vision, a number of important strategies are in place. To address the specific problems of corruption, Government launched South Africa's National Anti-Corruption Programme followed by Public Service and National Anti-Corruption Summits. Late in 1999, Government also co-hosted the 9th International Anti-Corruption Conference. At the beginning of 2002, Government adopted the Public Service Anti-Corruption Strategy.

The e-government vision is informed by the growth and development priorities expressed in Vision 2014 as well as the Millennium Development Goals whereby ICT's are regarded as an enabler for the achievement of these goals within a broad and integrated developmental approach, rather than just as an infrastructure. E-government is firmly seen as an integral pillar for developing a South African Information Society and within this, e-education, e-health, and the development of small and medium enterprises within the ICT sector.

The Independent Electoral Commission (IEC) has developed an e-procurement system that allows for open and transparent bidding of government tenders aimed at preventing corruption.

South Africa's Electronic Communications Transactions (ECT) Act, No. 25 of 2002 and its Chapter X11 on Cyber Inspectors and X111 on Cyber crimes governs internet crime. Unfortunately no regulations have been implemented which are a factor that is undermining international co-operation to eradicate IT viruses, denial of service attacks, identity theft, child pornography, and other forms of cyber crimes.

4.3. What kind of e-government are we ready for?

The South Africa E-government vision sets out the priorities and key objectives of government in terms of G2G, G2C, and G2B transactions. Co-ordination of government departments is happening and enjoying ministerial support and participation. A number of projects in these fields have been implemented and the need for a monitoring and evaluation system has been identified. Although there are some shortfalls in certain areas, South Africa mostly has the required legal framework and governance model, infrastructure, and human capital needed for e-government.

4.3.1 A legal framework and governance model

In South Africa information policies enable the sharing of information with the public and across government departments. The Promotion of Access to Information Act enables the constitutional right of access to information. A person is entitled to request information from a public or private body. A request may be made where the record is required to protect or exercise a right; the procedures have been complied with, there is no ground for refusal; and a request includes request for personal information.

A number of policy measures have been identified as critical in creating an enabling environment for the implementation of e-Government and include: Minimum Information Security Standards (MISS), Handbook on Minimum Interoperability Standards (MIOS), Electronic Communications Transaction Act of 2002, and the Law Commission Issue Paper on Privacy Public Service Act The Convergence Bill which is now called The Electronic Communications Bill, is the proposed new legislation that will transform South Africa's telecommunications industry, should be signed into law before the end of April 2006. The Public Service Regulations of 2001 has also enabled e-government implementation. There is a Draft Protection of Information Bill which is at present undergoing consultation. An Open Source Software Strategy and Policy has been in place since 2003 and an implementation strategy and plan is going to be presented to Cabinet in the near future.

The ICT responsibility for national and provincial government resides with the Minister of Public Service and Administration and the necessary legal framework and functional bodies were created including the State IT Agency (SITA), formed as a central, shared service provider to government departments and provinces, the Government IT Officer's Council (GITOC), formed to encourage and facilitate a forum for consultation and deliberation of ICT related issues by the then newly appointed Government IT Officers (GITOs). The GITOC is an advisory body to the Minister of Public Service and Administration of ICT related matters, the Office of the Government CIO was created within Department of Public Service and

Administration. (DPSA) to act as a policy making, regulating and strategy formulating body with the specific purpose of coordinating E-government activities across government and The Department of Public Service and Administration was also tasked to ensure proper measurement of ICT effectiveness in Government working together with National Treasury.

4.3.2 Infrastructure

Although the telecommunications landscape is dominated by the Telkom monopoly, government, through a process of managed liberalisation, is now introducing competition through the Second Network Operator (SNO) and a third cellular operator was licensed in 2002. Despite this, broadband access is limited and according to the ITU 2003 comparative study, South Africa performs poorly in this vital indicator of preparedness for e-commerce.

Mobile penetration has risen to over 50% of the population increasing opportunities for multi-access to information. South Africa has leveraged the tools of multi-access government to promote “free and fair” national elections in 2004. The Independent Electoral Commission (IEC) developed partnerships with cell phone service providers, which enabled voters to short message service (SMS) their identity number and in return receive a message back indicating their eligibility to vote and voting station details. Custom-designed handheld scanners captured information from bar-coded ID books and greatly streamlined the process of voter registration. (is there a role of Sentech and USA in infrastructure)

A further strategy employed to increase affordable universal access is that of granting Under-serviced Area Licenses (USALs). The licensees are Small Medium Enterprises (SMEs) that provide telecommunication services in areas designated as under-serviced

4.3.3 Human capital

South Africa faces significant human capital development challenges in building the Inclusive Information Society. One of the key challenges is the shortage of skilled ICT people in the country exasperated by the “brain drain” of skilled ICT personnel and other professionals to developed countries, and from public to private sector.

Currently the education and training system is unable to produce the essential and technical management skills that most employers seek. The School Register of Needs (SRN) survey of 2000 reveals that schools that used computers for teaching and learning in 2000 was 12.3 percent and those that had access to email and internet was 6.9 percent. This has a direct link to the quality of ICT related qualifications produced by universities and technikons.

According to the HRD review of 2003, trends over the past ten years indicate that very few graduates (12 % in 1999) obtain postgraduate qualifications and that has serious implications for the supply of high-level ICT workers.

4.4. Is there enough political will to lead the e-government effort?

The President of the Republic of South Africa has committed South Africa not only to participate but to compete internationally in the Information Society. The Presidential National Commission on Information Society and Development (PNC on ISAD) was established in 2001 by the President of the Republic of South Africa to advise and to broadly coordinate ICT initiatives. The establishment of the PNC on ISAD gave effect to the President's commitment to promoting the use of information and communication technologies (ICTs) to increase the pace of service delivery, economic growth and development in the country. To this end, the PNC on ISAD works closely together with the Minister of Communications to work on ICT strategies for the Information Society as a whole. The Minister of Public Service and Administration was tasked specifically with the coordination of e-government as well as the governance of ICT's within government.

4.5. Are we selecting e-government projects in the best way?

It is important to match projects with the vision. South Africa has achieved a number of successes including an e-Government information portal, called Batho Pele Gateway launched in 2004; 355 Multi Purpose Community Centres (including Telecenters and cyber labs in schools) have been established to provide people in villages with access to ICT and ICT related services; all universities in the country and about 6000 schools are ICT enabled; about 800 Public Information Terminals (PITs) have been established; over 80 per cent of health centres are connected with ICTs; all provincial and national government departments and many local governments have websites and e-mail addresses; an educational portal, Thutong, has been established to help educators and learners to access curriculum related information; a language portal using all 11 official languages has been established; and .an Open Source Software desktop application has been translated into South African Official languages

A study on Inventory of Government-wide Information Systems (IGIS) in 2001 giving recommendations for implementation has been completed. Recommendations included monitoring of expenditure, achieving economies of scale, minimum interoperability standards, security, architecture, management of projects and marketing of the E-government vision. At the present time, and Electronic Inventory of Government Information System is being developed and will be launched in May 2006. This system will require all CIO's (Chief Information Officers) to fill in information on departments, IT systems, application and projects which will assist in terms of reporting requirements and the necessary compliance with the Public Service Regulations.

The horizontal integration of E-government services (across agencies and departments within the same level of government) has long been a goal of many countries, even while many have struggled with the challenges of connecting across various department and agency systems. Government has implemented a number of transversal projects such as the financial, personnel management systems and supply chain management systems (Persal, Bas and Logis). The transversal systems are in the process of being improved through the Integrated Financial Management Systems

Project (IFMS). The case management systems used by the Police, the motor vehicle registration systems used by Transport, the pensions and unemployment insurance systems used respectively by Welfare and Labour, and the subsidy management system used by housing are all examples of transversal initiatives within government.

The Batho Pele Gateway Portal was launched in 2004 and is in its first phase as an information portal providing information on government services and other information such as legislation, policies and all other information of government. At present it is undergoing enhancement by translating information on the portal into all 11 languages.

The South African Post Office's Paymaster to the Nation project promises to make life considerably easier for recipients of pensions, particularly those who live in remote rural areas. Under the scheme, welfare grants and pensions are paid into a Postbank account that is linked to a smart card containing a magnetic strip and a chip, which contains the beneficiary's fingerprints and photo to eliminate fraud. In the government to business (G2B) domain the South African Revenue Services (SARS) e-filing already provides a means to conduct transactions related to tax returns on the internet

4.6. How should we plan and manage e-government projects?

The approach outlined by the E-government framework proposed by the DPSA includes the management of all e-government projects to be managed by a systems development life cycle which requires that all application implementation have to go through a process from conception, through design and development phases and final implementation. A monitoring and evaluation capability will be implemented to ensure that best practices and lessons learnt are shared.

An e-government governance framework has been proposed by the DPSA and has recently undergone extensive government-wide consultations to achieve approval and buy in from senior officials. The ICT governance structure consists of the DPSA, the State Information Technology Agency (SITA), the National Treasury and the Government Information Technology Officers Council (GITOC). These three interrelated entities are in the main responsible for government's ICT responsibility and service improvement using ICT's.

The governance model also recognises an inter-departmental forum consisting of relevant government stakeholders, specifically those who are at present managing transversal e-government projects that will impact on the efficiency and effectiveness of government as well as have the necessary effect of improving service delivery to citizens. These projects include the Home Affairs National Identification System, (HANIS), Integrated Financial Management System (IFMS), South African Social Security Agency, and the Integrated Justice System (IJS).

The Governance framework outlines the responsibilities of specific committees responsible for e-government data-related projects, specifically citizen-data, application-related, access channel projects such as service centres, etc., infrastructure-related matters. It is envisaged that a programme office, namely that of

the Office of the Government CIO, based at DPSA will play a coordinating role to ensure that large e-government projects are well planned.

Criteria for identifying ICT projects include increased productivity in terms of quantity and quality of ICT implementation, better cost effectiveness in terms of duration, complexity and possible reduction or duplication of tasks, and improved service delivery. All these are measured by interoperability standards, security of documents and systems, economies of scale in supporting the accelerated growth strategy in supporting the development of a vibrant ICT sector and Open Source Software usage and development, elimination of duplication of ICT functions, projects and resources, thus ensuring that access to ICT infrastructure is paramount.

E-government management is more than implementing projects; it means planning for capacity-building. The E-government strategy has raised a number of relevant issues to capacity building. These include the necessity for skills transfer from ICT vendors during system implementation. That ICT re-training and re-orientation should be a continuous part of the development plan for public servants and that ICT literacy has to be part of the general education curriculum. Digital inclusivity must permeate solutions formulated as part of the e-government programme. An example would be that citizens will get general ICT training at general service centres, such as a Multi-purpose Community Centre (MPCC)'s.

4.7. How will we overcome resistance from within the government?

The South African government has following a consultative process in terms of achieving “buy-in” from all government stakeholders. E-Government has generally been accepted as the term governing general aspects of modernising government’s business’s processes and it has been mandated by the Governance and Administration Cluster of Cabinet to the Department of Public Service and Administration to forge a common approach to the understanding and implementation of e-government. There is general acceptance and buy-in at Cabinet level but resistance if any will be at inter-departmental, possibly at senior management level as it may be perceived that turf is being trampled upon. Resistance to an E-government governance model and plan will only come about if relationship building is not cultivated at this point in time.

4.8. How will we measure and communicate progress?

The assessment of the contribution of ICTs to the development of the Information Society requires detailed analysis which is based on statistical and qualitative data about purpose, intensity and value of ICT use and application. Official statistics relating to the connectivity of SMMEs, health institutions, public funded institutions are not widely available and thus need to be developed and collection strengthened.

South Africa lacks a comprehensive and easily accessible evidence base to support strategic policy decision making and programme design to leverage ICTs for South Africa’s Information Society development. This negatively affects timeous detection of service delivery challenges for the purpose of effecting corrective action, thereby impinging on the ability of the state to deliver effectively and efficiently in terms of the ICT for development agenda. It further hampers international development reporting obligations on ICTs such as reporting requirements on the

Millennium Development Goals and progress made towards the implementation of the World Summit on Information Society (WSIS) Plan of Action.

The WSIS Plan calls on all countries and regions to develop and set up coherent and internationally comparable indicator systems and tools to provide statistical information on the Information Society, with basic indicators and analysis of its key dimensions.

4.9. What should our relationship be with the private sector?

In South Africa there are a number of examples of Public Private Partnerships in ICTs for development. The corporate sector plays an important role in providing support to community programmes. However, the relationship with vendors remains problematic and government must remain vigilant in not getting “locked in” to proprietary solutions from a single vendor. For example, government is promoting the use of non-proprietary solutions such as Open Source Software.

4.10. How can e-government improve citizen participation in public affairs?

E-government is evaluated through public participation. Access to public services is a necessary part of e-government, but not sufficient. Facilitating, broadening and deepening openness and citizen involvement is fundamental to e-government. Evaluate the effectiveness or success of e-government through participatory dialogue and interaction. Such participation can either be discreet, one-time participation or ongoing participation by individuals or community groups (e.g., some kind of “citizen steering committees” for e-government projects). The important thing is to ask the public for feedback, and ask regularly. Such interactive dialogues create greater accountability.

The government has established a process through which the public can comment on draft legislation. Green papers, draft laws and regulations are posted on government web sites. Citizens can review policy proposals and documents online and submit comments, even before a policy issue reaches the Green Paper stage. This kind of participation allows citizens to contribute directly to public policymaking.

5. Challenges and Next Steps

The 10 questions posed by the “Roadmap for E-government” has highlighted the positive progress South Africa has made in E-government but also raised some interesting issues. Although the E-government vision is articulated in various policy documents there is no common theme or consensus. Reference to corruption in the vision is notably absent. The general principles of Batho Pele are evident in government’s strategies which is important in creating a citizen centred service.

Government has noted the absence of G2E (government to employee) in its strategies and is addressing this issue realising the crucial role employees play in the process. On the technical front there are many challenges particularly with legacy systems, and the need to implement transversal systems in order to achieve horizontal

integration required for cross-departmental integration. Technological solutions can easily be found but government needs to manage carefully its role with the private sector in forming Public Private Partnerships.

However, it is the human resource development issue within government that needs prioritisation. The education system needs to be aligned with the ICT demands of the country and scarce ICT skills need to be attracted and retained particularly within government.

How will government know if it fails or succeeds without an integrated monitoring and evaluation system? Government has demonstrated its understanding between outcomes and cost-benefit but formal monitoring and evaluation procedures need to be put in place. Emphasis should be placed here on the impact on service delivery and the customer. There are issues regarding implementation of the public service regulation in terms of ICT which are being addressed with further amendments to the Act requiring reporting mechanism to be put in place to report back on ICT spending and project implementation to the Public Service Parliamentary Committee.

Change always brings with it the possibility of unexpected outcomes and difficulties. Some which have been experienced in the e-Government arena include a high turnover of staff, inadequate resourcing, underachievement of project work, lack of leadership in terms of financial planning, lack of ICT expertise, a 'relatively' weak ICT industry, poor recognition of the emerging Information Society and a weak educational system.

E-government in South Africa needs to develop service and customer maturity. Service maturity measures the level to which a government has developed an online presence—the most critical service delivery channel in terms of driving down delivery costs. Service maturity takes into account the number of services for which national governments are responsible that are available online (service maturity breadth), and the level of completeness with which each service is offered (service maturity depth). Service maturity overall is the product of service maturity breadth and service maturity depth. [6].

Customer service maturity measures the extent to which government agencies manage interactions with their customers (citizens and businesses) and deliver service in an integrated way. Important measures of customer service include customer relationship management, citizen-centered strategies, multi-access for services, cross-government service delivery and creating awareness and educating customers [6].

6. Conclusions

E-government in South Africa is in the formative stage of development. Key challenges facing government include creating access, internal efficiency and human resource development. With advances in technology improved access needs to be created for citizens, particularly in rural areas and a supportive telecommunications policy needs to be in place. Internal efficiencies need improvement not only from a technological point of view but also from a people perspective. Training and creating

a common purpose are key issue. Government has already added G 2 E (Government to Employee) in its strategies

Key policies and governance frameworks have recently been developed and the role of leadership, amongst its many agencies, has been defined. South Africa has taken the first tentative steps in creating on-line access but its breadth and depth of services requires significant development. This needs to be seen in the context of relatively low tele-densities, especially in rural areas, and high telecommunication costs.

Government's current plans include revamping the E-government portal to improve public access to government services, through public information terminals in post offices and multi-purpose community centers, and to provide streamlined government services online to present government as a single entity to consumers of its services. These plans point to a positive movement in customer service for the country

A consultative process has been followed in developing E-government in South Africa but achieving buy-in, particularly within the ranks of government departments, remains a challenge. The next phase of E-government should focus on implementation guided by the citizen focused Batho Pele principles in terms of online service delivery and customer service.

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