Government of the Republic of Namibia

THE E-GOVERNANCE POLICY
FOR THE
PUBLIC SERVICE OF NAMIBIA

OFFICE OF THE PRIME MINISTER
Windhoek, 2005

Preface

Namibia is a signatory to the Millennium Declaration, and aspires to embrace the principles of the Inclusive Information Society as advocated in the World Summit on Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals and communities to achieve their full potential, thereby improve their own quality of life.

It is our belief that in resolving these challenges, E-Governance can play a key role in the attainment of the stated development goals. The Millennium Development goals and their year 2015 targets which include eradication of hunger, attainment of universal primary education, reduction of child mortality and improvement of health, to mention a few, need to be addressed by Namibia as part of the international community.

Internally, we have developed a clear National Development Plan (NPP II), addressing unemployment, HIV/AIDS, poverty reduction and other local economic development issues. As a country, Namibia has formulated a long-term vision, that is Vision 2030, where we have set ourselves to become an industrialised nation by that year. Vision 2030 further guides us towards a future of prospenty, harmony, peace and political stability. These noble objectives can all be achieved much faster if there is a well-defined E-Governance policy supported by an effective implementation strategy.

The Government is well aware of its crucial role in sustaining the right environment for the development of a true Information Society in Namibia through the use of ICT.

This E-Governance policy outlines the intention of the Government, and the attendant strategies to ensure ICT becomes an effective tool that will allow the government to provide its services to all the citizens 24 hours a day, 7 days a week. Special emphasis will be made to ensure that our people who reside in the rural areas are not left out or marginalized. All this will be done while ensuring that the Government adopts a "customer-service" culture. I am confident that this E-Governance Policy has set us on an upward path for the transformation of Namibia into a knowledge-based, highly competitive and industrialised nation.

In drafting this Policy and in organizing the workshop where all stakeholders were invited to deliberate and refine the policy, the Government wishes to extend its sincere appreciation for financial support provided by Inwent (Capacity Building International) in Germany.

Honourable Nahas Angula,
Prime Minister,
April 2005.

TABLE OF CONTENTS

1.   INTRODUCTION

1.1   The Information Age

Computers were first introduced in the 1940s mainly out of mere research curiosity. These first computers, which were as big as the size of an office, were used only in Universities. Within a short time, however, their usefulness in processing data both at Universities and work places became apparent. Soon computers were found in organizations processing typically payrolls, inventory controls and similar operations. As computers evolved, technological development allowed for the production of smaller but more powerful computers, with the ability to process not only mundane data, but also information. The advance in telecommunication technology also allowed computers to communicate information between themselves.

The merging of computers and telecommunications technology led to the Information and Communications Technology (ICT) era, which rapidly impacted all walks of life. ICT has been applied to automate many information related tasks; has been used for storage, analysis and dissemination of information; and has been employed in conducting research and resolving hitherto impossible problems, while allowing faster and wider reach that has increased the effect of globalisation and continues to make the world, in terms of interaction, increasingly "small." The revolution brought about by ICT has ushered us into a new era of knowledge economy, where the wealth of countries and nations depends, not so much in capitalization, but on how they acquire, preserve, and utilize knowledge. This is directly related to the extent to which ICT is applied and used.

1.2   E-Governance and its Benefits

Overview

One of the early applications of computers was in automating payrolls for organizations. As time went by, applications were extended in other areas of businesses, by automating personnel information such as biographical data, leave information, etc. More recently, a field of ICT has emerged called E-Commerce, which allows automatic electronic transactions of essential business and operational information between business partners. E-Commerce has also allowed companies to market their products better, and made it possible to satisfy the varied customer interests faster and at minimum costs. Frontier companies in E-Commerce were able to save billions of dollars in operational costs, thereby making staggering amounts of profit.

Noting these tangible benefits of E-Commerce, governments, surprisingly a latecomer into the scene, noted that similar benefits could be derived by employing ICT in all spheres of government services. The objectives are generally to improve efficiency and effectiveness, as well as to save costs. In parallel to E-Commerce this concept is commonly referred to as E-Governance. Internationally, most countries are still in the early stages of E-Governance. A good start has been made in Europe, USA, Australia and Singapore. In developing countries, Egypt and India present good examples. The driving force for E-Governance is the public demand for online services and information that allows increased rate of change in government reform to allow more accountability, transparency, quality of service and democratic participation.

What is E-Governance

E-Governance can be considered as "the use of Information and Communication

Technologies in public administrations, combined with organizational change and new skills, in order to improve public and democratic processes and strengthen support to public policies." [1]

Most of the government services are provided during office hours, and by physically visiting the relevant office. Imagine, however, a situation where such services could be delivered 24 hours a day, 7 days a week, and at the very place where the customer is. With current technology that is available in ICT, this is possible for great many government services. Such services could be delivered in the internet, e-mail, cellphones, telephones, and purpose built service points similar to ATMs used by Banks. Only in a few very special situations would one have to go to a physical counter in the government office.

In considering E-Governance, it is useful to realise the relationship between E-Democracy and E-Government. E-Democracy is the totality of processes and structures that encompass all forms of electronic interaction between the Government (elected) and the citizen (electorate). The interaction involves the delivery of government products and services, exchange of information, communication and system integration.

E-Government refers to a form of E-Business in governance, with processes and structures needed to deliver electronic services to the public (citizens and businesses), collaborate with business partners and conduct all possible operations electronically

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[1] ECU, "Communications from the Commission to the Council, the European Parliament, the European Economic and Social Committee and Committee of Regions: The Role of Government for Europe's Future," Brussels, 2003 Com 567.

within government entities themselves, in central, regional and local government levels.[2]

This means that E-Governance involves the use of electronic means (Internet and other ICT techniques) to facilitate interaction between government and the public (citizens and businesses), as well as improve the governments own internal operations to enhance its service delivery and democratic participation. It encompasses the use of IT and Technology-enhanced means in the whole spectrum of Government activities in order to improve operations.

Benefits of E-Governance

While E-Governance as an area of focus is a fairly recent concept, it has however, now become an international phenomenon that is undertaken by diverse array of administrations in governments. Initially, governments focused on publishing information and automating services. However, governments have now begun to recognize the needs beyond efficiencies, service delivery and web presences, to consider a more broad vision of values, ethics, culture, and the needs of an integrated harmonious society, with the view to improve innovativeness in the entire range of operations conducted. When properly applied E-Governance provides several benefits some of which are narrated below.

E-Governance drives costs of service delivery down and improves efficiency. By automating most of the services, it is possible to do more work, with less people,

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[2] UCD "E-governance and Developing Countries." E-Governance is the term used to combine both E-Democracy and E-Government.

in less time and with a smaller workforce. E-Governance also brings suppliers (in this case the Government) closer to its customers (citizens and businesses). This means that any information or transaction required can be obtained almost immediately in the form most convenient to the customer. This increases the willingness of customers to proactively involve in government matters, beyond just being recipient of services.

Another advantage of E-Governance is the fact that the government is made to seek ways that will make it more responsive to the needs of both the citizens and the businesses with which they interact. This requires, first a change in attitudes on the part of the government to become more customer-focused. Secondly, it requires a high degree of innovativeness. ICT provides an almost limitless number of ways in which services can be provided and improved. Some of these may require cutting-edge technologies, and consideration of new ways of doing things. The government needs to show willingness in venturing even in ways that were not tried before.

In addition to all the above, current society characterized by the knowledge economy, demands the government to show accountability and transparency, and to espouse the values of decentralisation and marketisation. E-Government creates the choice for the public sector to do things and tasks differently. Marketisation is necessary to support the adoption and diffusion of new initiatives.

1.3   The Namibian Government in the Information Age

The Namibian Government has grown steadily to embrace ICT, by following world trends and utilizing benefits of the technology. In the same year when the country got independent in 1990, the Department of Public Service Information Technology

Management (DPSITM) was created in the Office of the Prime Minister, to guide and oversee all aspects of ICT usage in the Public Service.

The Department started its operations by setting up standards, guidelines and procedures that assisted in hardware and software acquisition, IT training, and later in establishing a government wide network (GRNNet), as well as in web development. An IT policy was formulate in this regard in 1993. The policy set the ground work which allowed further activities to ensure that the benefits of ICT are fully realized. It was proposed that a Cabinet Committee on IT (CCIT) be established to ensure that ICT matters are considered at the topmost decision levels of the country. DPSITM was to become the technical arm of CCIT.

Along with the above, a Public Service Committee on IT (PSCOIT) was also formed, drawing membership from all government units and its main stakeholders, to oversee and advise on the formulation of strategies that will stimulate the effective use of ICT in the government, in a manner that will ensure efficient decision-making, better service delivery, and improvement in all government management processes.

The IT policy allowed the different Government Ministries to have their own Information Technology (IT) Units, which would assist in execution of plans and implementation of various applications at ministerial levels, act as contact points for drawing-up of IT-related tender proposals and tender evaluation, support technical systems design, and managing and maintaining computer systems for day-to-day operations of the Ministries.

DPSITM also worked to develop open standards and cooperative architecture. This was aimed at achieving interoperability within the different Government Ministries

and units, while allowing wide choices in acquiring equipment and software from different vendors. In this regard, a GRN Intranet/Internet Gateway was developed which now links all Government Ministries. A GRN Website was also created, where a lot of information about the Namibian Government can be accessed.

Other areas where the DPSITM has worked on include Human Resources Development which aimed at retaining qualified computer professionals in the Public Service; in the development of computer security and standards; and in developing the necessary computer network infrastructure linking all the Government Ministries.

Compelling Global Declarations
Two over-arching global declarations to which Namibia is a signatory form a compelling driving force in shaping this Policy. These are: the Millennium Declaration; and the Declaration of the Principles of the Information Society and its Action Plan.

The Millennium Declaration for attaining peace and security, human rights and sustainable development agreed on by UN Member States at the Millennium Summit, held on September 2000, in New York, is summarized in eight Millennium Development Goals. By the year 2015, all 191 United Nations Member States are required to meet the following Goals:

- Eradicate extreme poverty and hunger;
- Achieve Universal Primary Education;
- Promote gender equality and empower women;
- Reduce Child motility;
- Improve maternal health;

- Combat HIV/AIDS, malaria and other diseases;
- Ensure environmental sustainability; and
- Develop a global partnership for development.

Specific challenges from the Millennium Declaration that compel the Namibian Government to build an E-Governance Policy, and which require special attention regarding ICT are as follows:

- No individual and no nation must be denied the opportunity to benefit from development;
- There is need to strengthen respect for the rule of law in international and national affairs;
- Concerted efforts are needed to free all fellow men, women and children from abject and dehumanising conditions of extreme poverty, and from want;
- There is need to instill among people a new ethic of conservation and stewardship;
- Provision must be made to ensure free access to information on the human genome sequence and other similar matters of public concern;
- The world community must work to develop open trading systems; and
- In cooperation with the private sector, there is a need to avail the benefits of new technologies, especially information and communications technologies to all.

The followings are the main targets to be achieved by all countries in year 2015:
- Reduce by half the proportion of people living on less than a dollar a day.
- Reduce by half the proportion of people who suffer from hunger.
- Ensure that all boys and girls complete a full course of primary schooling.

- Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.
- Reduce by two thirds the mortality rate among children under five.
- Reduce by three quarters the maternal mortality ratio.
- Halt and begin to reverse the spread of HIV/AIDS.
- Halt and begin to reverse the incidence of malaria and other major diseases.
- Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.
- Reduce by half the proportion of people without sustainable access to safe drinking water.
- Develop further an open trading and financial system that is rule-based, predictable and non-discriminatory. Includes a commitment to good governance, development and poverty reduction - nationally and internationally.
- Address the least developed countries' special needs. This includes tariff- and quota-free access for their exports; enhanced debt relief for heavily indebted poor countries; cancellation of official bilateral debt; and more generous official development assistance for countries committed to poverty reduction.
- Address the special needs of landlocked and small island developing States.
- In cooperation with the developing countries, develop decent and productive work for youth.
- In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries; and
- In cooperation with the private sector, make available the benefits of new technologies - especially information and communications technologies.

In order to achieve the Millennium Development Goals that are embedded in the Millennium Declaration, a world summit on Information Society was convened to specifically examine how the potential of information and communication technology can be used to promote the attainment of these Goals.

In this regard, the World summit on the Information Society which was held in Geneva, December 2003, resolved to build a people-centred, inclusive and development-oriented Information Society where everyone can create, access utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life. The following are the agreed Key Principles for building an inclusive Information Society:

- Governments and all stakeholders should play a key role in promoting ICTs for development;
- Information and Communication infrastructure should be improved in a manner to ensure an all-inclusive information society;
- Key efforts should be made to ensure that all can access, and contribute to information and knowledge;
- Special attention should be given on capacity building to ensure that all participate actively in, and benefit fully from, the Information Society;
- There is need to develop the trust framework, and to build confidence and security in the use of ICTs;
- The rule of law and a regulatory framework should be used to create a dynamic enabling environment to build a people-centred Information Society;
- The usage of ICT should seek to benefit all aspects of life;

- Cultural diversity and identity, linguistic diversity and local content, are a common heritage of mankind for which ICT should be used to stimulate, preserve, promote and affirm;
- Principles of freedom of the press, as well as the independence, pluralism and diversity of the media, should be regarded as essential to Information Society;
- The Information society should respect fundamental values of tolerance, shared responsibility, and respect on the freedom of others, including personal privacy and freedom of thought; and
- Concrete international approaches and regional cooperation, including financial and technical assistance are essential to build an inclusive global Information Society.

The Plan of Action translates the common vision and guiding principles of the Information Society Declaration in to concrete action lines by promoting the use of ICT-based products, networks, services and applications, and to help countries overcome the digital divide. There are four action lines in the Plan of Action, namely: The role of governments and all stakeholders in the promotion of ICTs for development; the development of information and communication infrastructure as an essential foundation to the Information society; widening access to information and knowledge; and capacity building. With regards to the first action line that relates to the role of governments, it is considered that the effective participation of governments and all stakeholders is vital in developing the Information Society requiring cooperation and partnerships among all of them. Specifically the following responsibilities are tasked to governments:
- Development of national e-strategies, including the necessary human capacity building, should be encouraged by all countries by 2005, taking into account different national circumstances.

- Initiate at the national level a structured dialogue involving all relevant stakeholders, including public/private partnerships, in devising e-strategies for the Information Society and for the exchange of best practices.
- In developing and implementing national e-strategies, stakeholders should take into consideration local, regional and national needs and concerns. To maximize the benefits of initiatives undertaken, these should include the concept of sustainability. The private sector should be engaged in concrete projects to develop the Information Society at local, regional and national levels.
- Each country is encouraged to establish at least one functioning Public/Private Partnership (PPP) or Multi-Sector Partnership (MSP), by 2005 as a showcase for future action.
- Identify mechanisms, at the national, regional and international levels, for the initiation and promotion of partnerships among stakeholders of the Information Society.
- Explore the viability of establishing multi-stakeholder portals for indigenous peoples at the national level.
- By 2005, relevant international organizations and financial institution should develop their own strategies for the use of ICTs for sustainable development, including sustainable production and consumption patterns and as an effective instrument to help achieve the goals expressed in the United Nations Millennium Declaration.
- International organizations should publish, in their areas of competence, including on their website, reliable information submitted by relevant stakeholders on successful experiences of mainstreaming ICTs; and
- Encourage a series of related measures, including, among other things: incubator schemes, venture capital investments (national and international),

government investment funds (including micro-finance for Small, Medium-sized and Micro Enterprises (SMMEs), investment promotion strategies, software export support activities (trade counseling), support of research and development networks and software parks.

This E-Governance Policy is developed in recognition of the above stated challenges, and as part of the efforts to build an inclusive Information Society that will accelerate the attainment of the Goals stated in the Millennium Declaration.

Considering the immense benefits of E-Governance, DPSTIM continued to monitor the situation world-wide, in order to ensure experiences elsewhere are brought to benefit the Namibian Government from advances in ICT. In this regard, consultations were made with some Indian companies which have implemented similar systems elsewhere. After assessing the situation within the Namibian Government, the invited Indian company, called the International Centre of Excellence (ICE), submitted a report titled "Feasibility Report on E-Governance," which was submitted in June 2004.[3] This Report provided ideas on how the Government of Namibia can move forward with the implementation of E-Governance. Contacts also were made with the Egyptian Government and others, in this regard. This E-Governance Policy is part of these efforts, intended to establish a framework of approach that will allow Namibia to fast-track the implementation of E-Governance for the benefits of the entire citizenry in line with the Millennium Development Goals and the Principles of the Information Society.

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[3] ICE "Republic of Namibia: Feasibility Report on E-governance," Prime Ministers Office, DPSITM, 2004.

1.4   Objectives of the Policy

E-Governance intends to support and simplify administration, service delivery, and interaction between different parties including the government itself, citizens and businesses, by using electronic means to improve these services and ensure that the economic, political and administrative authorities are appropriately supported to better manage affairs of the country at all levels; national as well as local. In this regard, the objective of this policy is to provide guidelines for an over-arching framework that will allow:

- Providing the Namibian citizens access to information about political process, government services, and choices available to them 24 hours a day, 7 days a week (24/7).
- The possibility for Namibia to undertake a transition from passive information access to active citizen participation by:
    - appropriately informing citizens of all essential issues;
    - soliciting citizen's views and representing them in all forums where public opinion is essential; and
    - encouraging citizens and providing necessary information to vote.
- Satisfactorily fulfilling the public's needs and expectations by simplifying their interaction with the Government, and providing services based on their preferred choices.
- Provision of the speedy, transparent, accountable, efficient and effective processes for performing government administration activities.
- Widening access to the rural areas, and other marginalised sectors of the Namibian community, while increasing confidence of the public for online service delivery.

1.5 The Way Forward

Figure 1 below presents a Generic International Framework (GIF) for E-Governance, developed by Chau and Grant.[4]
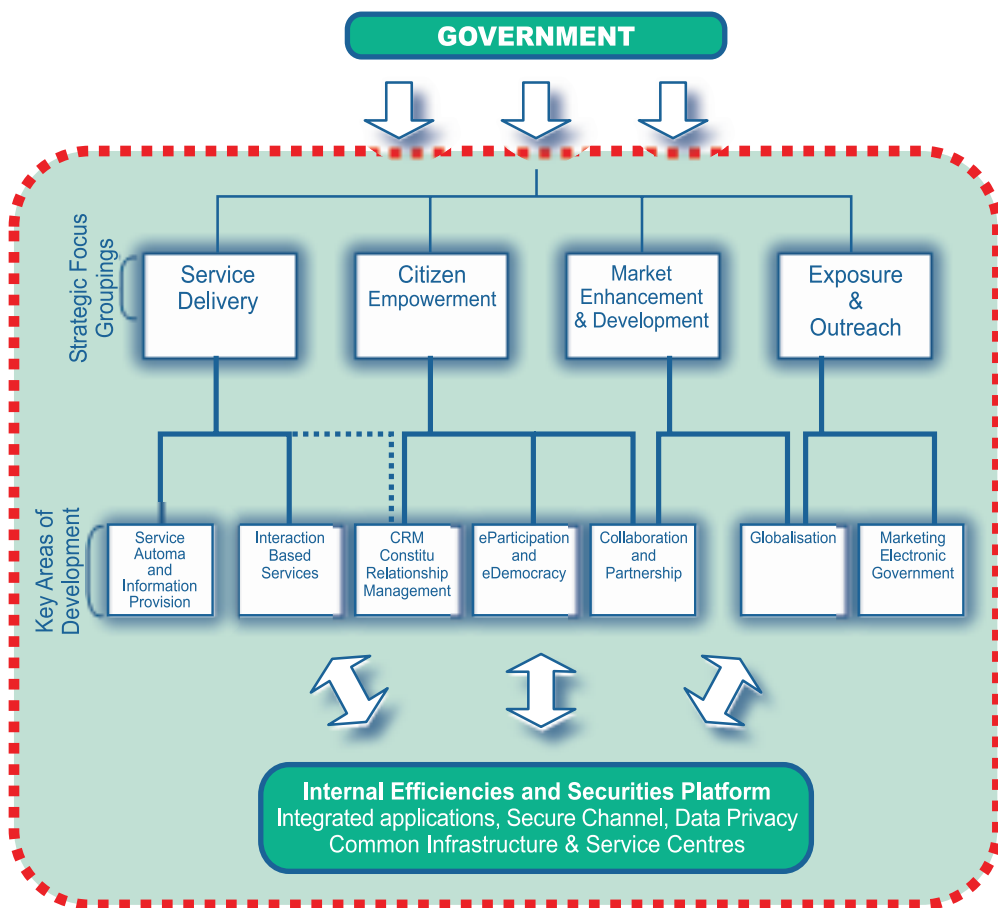

Figure 1: *Generic International Framework for E-Government*

[4] Chau, D.W.H. and Grant, G. "The Development of a Generic Framework for measuring of E-Governance."

E-Government Vision and Implementation

Chau and Grant argue that although every government may have its own vision of E-Governance, there is a common need to characterize and identify the direction and dimensions of each implementation. Certain commonalities and challenges that policy makers and ICT professionals face in every vision and implementation are outlined in the GIF model shown in Figure 1. At the strategic level, there are four main areas of focus, which need to be addressed. These are service delivery, citizen empowerment, marketing enhancement and development, and exposure and outreach. These areas are examined in detail in the succeeding Chapters.

The previous Section provided an outline of the vision and objectives of E-Governance for Namibia. A Generic Framework that structure these objectives to allow easy implementation is presented in this Section. A substantial part of the realization of E-Governance is the progression from the present, where things are, to where things are to be, as outlined by the objectives and vision. This process allows to determine the gap between the present and the future. Once the gap has been identified, reform initiatives to eliminate or reduce the gap can be conceived. For this reason, to develop an implementation strategy for this policy there is need to undertake a baseline study, or an E-Readiness study which will inform on the current status and how things are. DPSITM is already undertaking an E-Readiness study for this purpose.

For the Namibian Government to be able to realise the stated objectives in Section 1.4 along the Generic International Framework of Implementation in Figure 1, the following aspects need to be considered.

24/7 Service Model

The Namibian Government will need to adapt systems and processes to a completely new service model. Intake processes need to be made self-service in order that even in the middle of the night a citizen should get an immediate (automated) response about the status of an application that is being processed. Citizen's expectations towards government's response times will change because of the new communication medium. E-mail should be used more effectively as a new but serious channel besides the traditional channels such as telephone, physical counter, post and fax.

Need for Content

The Government already hosts websites which mainly consists of content (information) only. This requires the Government to collect (buy), produce and update content daily. Initially, content will be static, but as E-Governance implementation progresses, content will be changing everyday. Content managers in each Ministry will need to be appointed to be responsible for the information on the website.

The content of and interaction with Government web presence must not be restricted to administrative matters. Currently, Namibia-related information on the web is dominated by foreign sites, and commercial sites promoting sectoral interests. Diverse, correct and attractive local content will enhance Namibia's internation status, attract investment and tourism, and assist educational efforts within the country. All institutions involved in e-governance, in particular Ministries, Regional and Local Governments, Libraries and Archives and Institutions of Higher Learning, have a responsibility to develop and disseminate authentic, factually correct and diversified local Namibian content on the web. The evolving web portals should integrate and popularise this content.

Human Resources

Effectiveness of E-Governance and use of ICTs will require training of people. People should feel comfortable with the tools they will use otherwise they will return to their old working patterns and habits. Maintaining technological infrastructure requires IT skilled resources. The Government of Namibia will need to create mechanisms to acquire best ICT experts as it will have to compete with the private (commercial) sector to recruit the necessary IT skilled people.

Security

Computer systems are vulnerable to external attacks. As the government moves its core processes (information, communication and transactions) to the Internet, it will become even more vulnerable. Internet increases the number of entry points exponentially. Good protection mechanisms will need to be devised which will include among others, anti-virus software, firewall at gateways, encryption technology, and authentication and identification tools.

Privacy

As E-Governance implementation moves to higher levels, the Government will posses detailed information about citizens and businesses, which will be held in multiple offices on many different computer systems (or still in paper files). The integration of data can result in situations where the privacy of individual citizens is in danger. It is the responsibility of the government to restrict the utilization of private information, and secure such information from access by unintended parties. Due to public concern regarding privacy, there will be a need to pass data protection laws.

With the implementation of E-Governance, the Department of Public Service Information

Technology Management (DPSITM) will be of central importance to government operations. The demands to DPSITM will inevitably increase, not only during implementation, but also for maintenance of software, hardware and infrastructure. These aspects will need to be considered and planned for carefully.

Financial Resources

The implementation of E-Governance will initially require substantial amount of investment. However, benefits that will be derived by way of improved service delivery will far outweigh the initial expenditures. There is need, therefore, to establish a funding framework to ensure adequate funding support. This will require not only political good will, but also an assignment of responsibilities that allows funding for E-Governance to be decided at the very top of Government decision hierarchy. Government should ensure that a minimum of 1% of its total budget is allocated to E-Governance activities and projects. This is recommended following successful implementation strategies of E-Governance in other countries.

All these aspects are discussed in detail in the Chapters to follow.

2. PROVIDING SERVICES RESPONSIVE TO CITIZEN'S CHOICES

2.1 Overview

Public services in Namibia will continue to be delivered by teachers, social workers, doctors and nurses, fire-fighters, police and other front-line staff, however, many of the government services, and the initial public contact can be handled electronically. Typically, processes that depend largely on the exchange of physical documents, provision of information, giving and receiving money, regulations and procurements, can all be done electronically. Currently in Namibia, internet banking has already been implemented, making it imperative for the government to follow suite.

In order to provide these services in a manner responsive to citizens choices, this will mean that government services like those mentioned above will be made available in a wide variety of media. Of course, the internet will be central, but the government should think of other means that are also convenient to many more citizens and businesses that interact with the Government.

2.2 Strategy

Gartner, 2000, provides an E-Governance maturity model, which is discussed in detail by Backus,[5] and which the Government of Namibia will adopt in providing different E-Governance solutions to suit citizens choices. The E-Governance Maturity Model shown in Figure 2 below suggests that there are 4 phases of increasing value to citizens and business (and increased complexity in implementation). These are briefly described.

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[5] Backus, M. "E-Governance and Developing Countries, IICD, Research Report, 2001.

Increasing value to
Citizen/Business

Phase 1
Information

Phase 2
Interaction

Phase 3
Transaction

Phase 4
Transformation

Increasing complexity
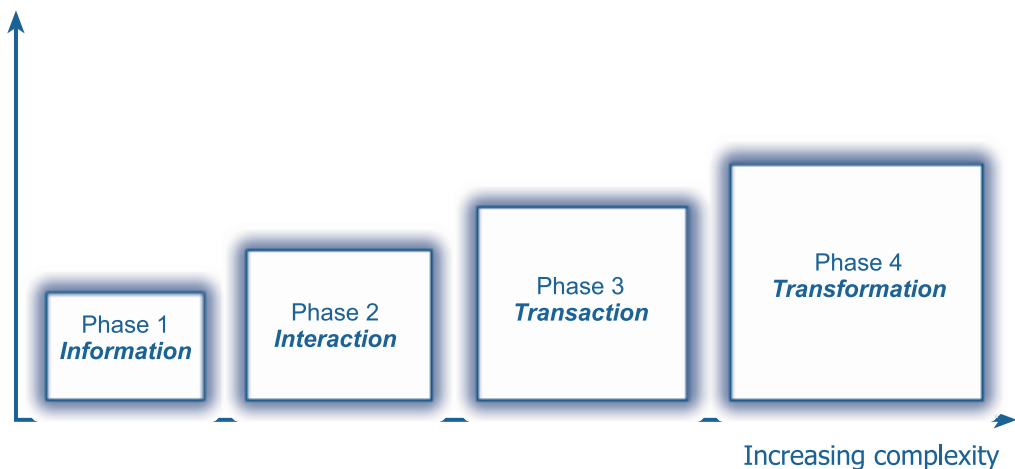
Figure 2: *E-Governance Maturity Model (Gartner, 2000)*

Phase 1:   Information
In the first phase E-Governance means being present on the web, providing the external public (G2C and G2B) with relevant information. The format of the first government websites is similar to that of a brochure or leaflet. The value to the public is that government information is publicly accessible; processes are described and thus become more transparent, which improves democracy and service.

Internally (G2G) the government can also disseminate information with static electronic means, such as the Internet. This phase is all about information, from a 1-page presence website to a site with all relevant government information available to the public, in order to improve transparency in democracy. Table 1 presents examples of phase 1 E-Government solutions.

Table 1: *Examples of Phase 1 E-Governance Solutions*

Examples of Information that Government		
...wishes to disseminate	*... may make available*	*... is required to supply*
Press notices	Geographical data	Performance indicators
Consultation papers	Demographic data	Environmental indicators
Policies	Economic data	Audited accounts
White papers	Information generated routinely	Personal data
News	Value added services	Internal Policy documents
Health and safety advice	Business yellow pages	Correspondence
Benefits and Entitlements		Management reports
Applicable regulations		

Phase 2:   Interaction

In the second phase the interaction between government and the public (G2C and G2B) is stimulated with various applications. People can ask questions via e-mail, use search engines for information and are able to download all sorts of forms and documents. These functionalities save time. In fact the complete intake of (simple) applications can be done online 24/7. Normally this would have only been possible at a counter during opening hours.

Internally (G2G), the government will use Local Area Networks (LAN), intranets and e-mail to communicate and exchange data.

The bottom line is that more efficiency and effectiveness is achieved because a large part of the intake process is done online. However, citizens and businesses still have to go to the office to finalise the transaction, by paying a fee, handing over evidence or signing papers. The use of electronic communications tools speed up the internal government processes.

Phase 3:   Transaction

With phase three, the complexity of the technology is increasing, but customer (G2C and G2B) value will also be higher. Complete transactions can be done without going to an office.

Examples of online services are filling income tax, filling property tax, extending/renewal of licenses, visa and passports and online voting. Phase three is mainly complex because of security and personalization issues – e.g., digital (electronic) signatures are necessary to enable legal transfer of service. On the business side, the government is starting with e-procurement applications.

In this phase, internal (G2G) processes have to be redesigned to provide good service. Government needs to create new laws and legislation that will enable paperless transactions with legal certification. The bottom line is that now the complete process is online, including payments, digital signatures, etc. This saves time, paper and money.

Phase 4:   Transformation

The fourth phase is the transformation phase in which all information systems are integrated and the public can get G2C and G2B services at one (virtual) counter. One single point of contact for all services is the ultimate goal.

The complex aspect in reaching this goal will be mainly on the internal side, e.g., the necessity to drastically change culture, processes and responsibilities within the government institution (G2G). Government employees in different Ministries have

to work together in a smooth and seamless way. In this phase cost savings, efficiency and customer satisfaction are reaching highest possible levels. Table 2 below summarises all the phases.

Table 2: Summary of the E-Governance Solutions in Different Phases

OVERVIEW OF E-GOVERNANCE SOLUTIONS			
	External: G2C	**External: G2B**	**Internal: G2G**
Phase 1: Information	Local/Departmental National Information (mission statements and organizational structure Addresses, opening hours, employees, telephone numbers Laws, rules and regulations Petitions Government glossary News	Business information Addresses, opening hours, employees, telephone numbers Laws, rules and regulations	Knowledge base (static intranet) Knowledge management (LAN)
Phase 2: Interaction	Downloading forms on websites Submitting forms Online help with filling in forms (permits, birth/death certificates) Intake processes for permits, etc. E-mail Newsletters Discussion groups (e-democracy) Polls and questionnaires Personalised web pages Notification	Downloading forms on websites Submitting forms Online help with filling in forms (permits) Intake processes for permits, etc. E-mail Notification	E-mail Interactive knowledge database Complaint handling Tools
Phase 3: Transaction	License applications/ renewals Renewing car tags, vehicle registration Personal accounts (mytax, myfines, mylicenses, etc.) Payment of (property) taxes Payment of tickets and fines Paying utility bills Registering and voting online	License applications and renewals via website Payment of taxes Procurement	Inter-governmental transactions
Phase 4: Transformation	Personalised website with integrated personal account for all services	Personalized website with integrated business account for all services	Database integration

For each E-Government solution that will be proposed for implementation, an indication will given as to which of the four phases of the E-Governance Maturity Model the solutions aims to achieve.

2.3   Access

Because of the technology-pushy nature of ICT, often high-tech solutions are recommended with the hope that people will adapt and change their habits to fit the suggested new ways of doing things. Such solutions have often ended up as ivory towers because they did not consider how customers prefer to interact with the services offered. A better approach is to consider first how customers (citizens and businesses) are currently doing things, what service delivery methods they prefer, and what improvements they would suggest. Technology is then used to provide what has been clearly accepted as the customer choice. This will be the approach for the Namibian E-Governance process. Meeting the citizens at their own grounds.

The following architectural layout, adopted from the UK E-Governance framework, will be utilized in providing access by citizens and business to the services of the Namibian Government.

CITIZENS AND BUSINESS

Intermediaries

ACCESS DEVICES

| Mobile Telephones | Digital Services | Call Centres | Personal Computers | Internet Cafes | Public Access Points |

Access

Portals

E-Business Components

Gateway

Namibian Government Intranet

Extranets

Inter-Operability

Central Government
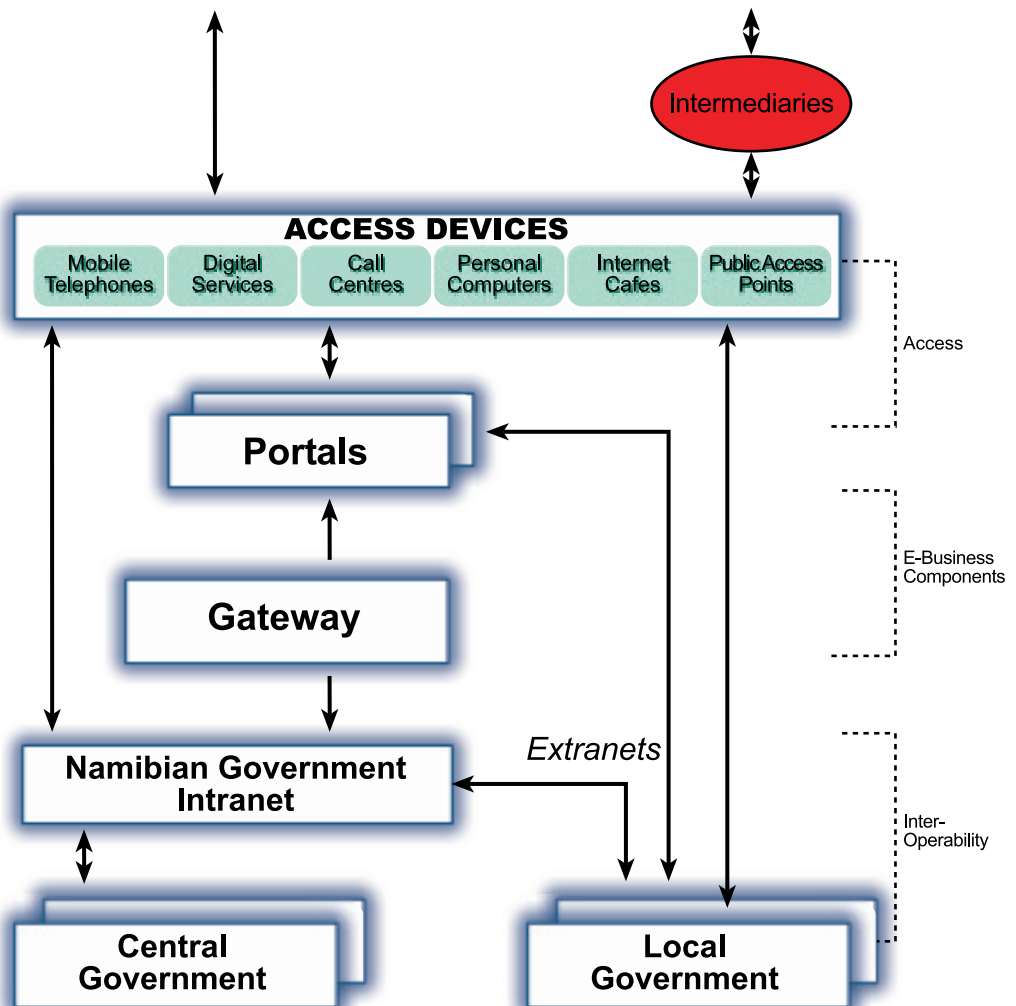
Local Government

Figure 3: *Architectural Model for Access to Government Services*

Figure 3 shows citizens and businesses accessing government services through a number of access devices and facilities such as mobile telephones, digital services (e.g. ISDN lines that carry data), call centres (like multipurpose service points suggested in the ICT policy), Personal computers, Internet cafes, and other public access points. The Government will attempt to provide services using as many different types of access devices available as possible, to provide support to services they offer to citizens and businesses that need interaction with the government. These service devices provide linkage to Government services either through the Namibian Government Intranet, the Government and public service portals, or directly from local government service points.

As Figure 3 shows that in the provision of access to government services, there exists three service design levels. The first level is the consideration of access devices (mobile phones, call centres, internet cafes, library centres, etc.) as was mentioned above, the next level considers E-Business components that could present information in user friendly formats. Typically such components include Portals and Gateways. The lowest level of service design, interoperability, considers issues necessary to ensure services within the Government are integrated, and information can be communicated seamlessly. These aspects are covered in the next Sections.

2.4   Portals and Gateway Services

To support various devices that provide the citizens and businesses access to government services, a Gateway to the Namibian Government Intranet will be created, via which portals will be developed. A Government portal already exists, but will be further enhanced. When it is fully developed, it is intended that this portal will offer a point of entry for citizens to all relevant services from central and local government.

It will handle authentication and privacy. The portal will be designed such that it will be capable of personalization, to allow citizens to match their own circumstances and interests. Facilities will be provided in it such that it can send reminders about services or information by e-mail.

Other sectoral portals will also be developed. These will include, for example, an education portal, business portal, health portal, etc. Efforts will also be made for government services to be accessed in private sector sites as well. This will require collaboration with the private sector, since launching joint services will not be within the scope of a single agency. A lot of ingenuity and innovativeness will be required in this regard. The Namibian Library and Information service in the Ministry of Basic Education and Culture currently operates 48 community libraries. These form excellent access public access points, and should create links to all government sectoral portals. DPSITM will identify possible patterns for joint services. Bringing together information from different sources to create new joined-up services will require the adoption of common protocols for data exchange.

In order to provide a variety of choices for access to citizens and businesses, the public sector, led by DPSITM, need to adopt a business like approach in creating, managing and marketing the government services. Techniques of market segmentation and customer service management will need to be employed. Citizens will be allowed to express their opinions on their preferences to inform the development of their services.

One of the important components in providing access in a business like fashion, is to provide structural components that are based on agreed standards for third-party delivery channels, including those owned and managed by the commercial and other

sectors. These standards are necessary to allow third parties to access government services as one of several providers, as well as allow third parties that need services from government to package their services in a more attractive way to the customers. It is necessary, therefore, to ensure that such third parties live up to the high standards of confidentiality, security and accountability expected of government services. Contractual arrangement may be entered to, depending on the nature of services provided by the government.

2.5   Interoperability

Ensuring interoperability across the government service units is necessary because of the challenge posed by transverse and diverse platforms, software, hardware, and system networks. The main objective is to develop a framework that eases integration without compromising security, functionality and ownership of information or service delivery.

DPSITM will establish common standards and infrastructure to enable interoperability across Government Ministries. Some of these standards are already developed but need continuous updating. The standards will also ensure that the Government Ministries can communicate electronically with citizens and businesses. The Government has already developed an Intranet that links all the Government Ministries. This will be used as the main hub for government services, which will provide interoperability both within the Central Government Ministries and by means of extranet links, to wider public sector and the Internet. This means that all Government Ministries will be required to align to the Internet Protocol (IP) and the World Wide Web (www). Ministries will also be required to adopt XML as the primary standard for data integration. The Browser will be used as the main interface together

with e-mail facilities. These common standards are necessary to ensure that e-mail and electronic documents and services can be exchanged within the government itself, as well as with citizens and businesses.

DPSITM will form a Gateway as a middleware service that allows many existing information systems to be jointed up and accessed from the Internet. The Gateway will provide interoperability in support of the portal services.

To ensure, indeed, that interoperability is achieved, DPSITM will develop a comprehensive interoperability framework policy. This policy will provide standards and specifications for interconnectivity, data integration, and information access regarding browsers and viewers.

2.6   User Readiness

Users of the E-Governance system involve employees of the Government who provide the services and maintain systems. It also include citizens and businesses that interact with the Government. Even with the best system provision, if users are not properly oriented in terms of attitudes and skills, it will be difficult to derive full benefits from E-Governance. In this regard, it is imperative that providers of government services be most thoroughly trained. A training programme will need to be incorporated for each E-Governance solution implemented.

Regarding citizens and businesses, it is nearly impossible to train all the citizens. To ease access to services, touch and click technology should be used for all online services. Access procedures and screen layout of all interfaces with citizens and businesses should be standardized. An easy to use online help facility will be provided in all service access devices.

3.   IMPROVING AND WIDENING ACCESS

3.1   Introduction

In E-Governance, there are three main target groups that interact with the government. These are the government itself, citizens and business or other interest groups. Interactions between the government and citizens is abbreviated as G2C, that between government and business as G2B, and government to government as G2G. Figure 4 below summarises these interactions.
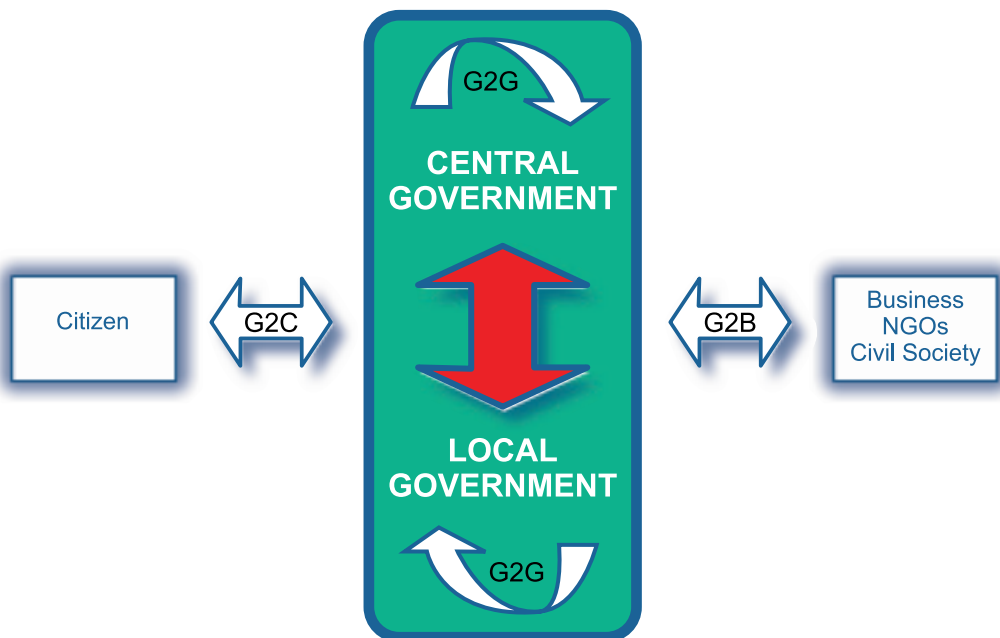

Figure 4: Interactions in E-Governance Setup

The objectives of E-Governance can, therefore, be grouped in to two: external objectives that focus on service provision for G2C and G2B, and internal objectives that focus on improving G2G interactions.

Currently, when seeking government services, citizens and businesses interact with government workers. The government workers access IT systems to be able to obtain required information, and to process various requests. Since the worker acts as the transaction processor and "Gatekeeper," government services can only be provided when the worker is available. This can only be during working hours and also when the worker is not occupied with other functions. This limits the extent to which government can offer services. E-Governance allows citizens and businesses to interact directly with the IT system for information and services. The IT system would be available all the times, and can handle many requests for service simultaneously, thus citizens and businesses are not made to wait. The Government worker's task is to simply ensure the IT system is operational and is provided with all the required support. In this manner the Government worker operates mainly as a problem solver, and is freed from having to deal with time consuming services that are better delivered by the IT system. Figure 5 below illustrates the change in philosophy required by E-Governance.

CURRENT PATH TO GOVERNMENT SERVICES

Citizen ⟷ Government Worker ⟷ IT System

Transaction Processor
or
"Gate keeper"

E-PATH TO GOVERNMENT SERVICES

Citizen ⟷ IT System ⟷ Government Worker

Customer Service
"Problem Solver"
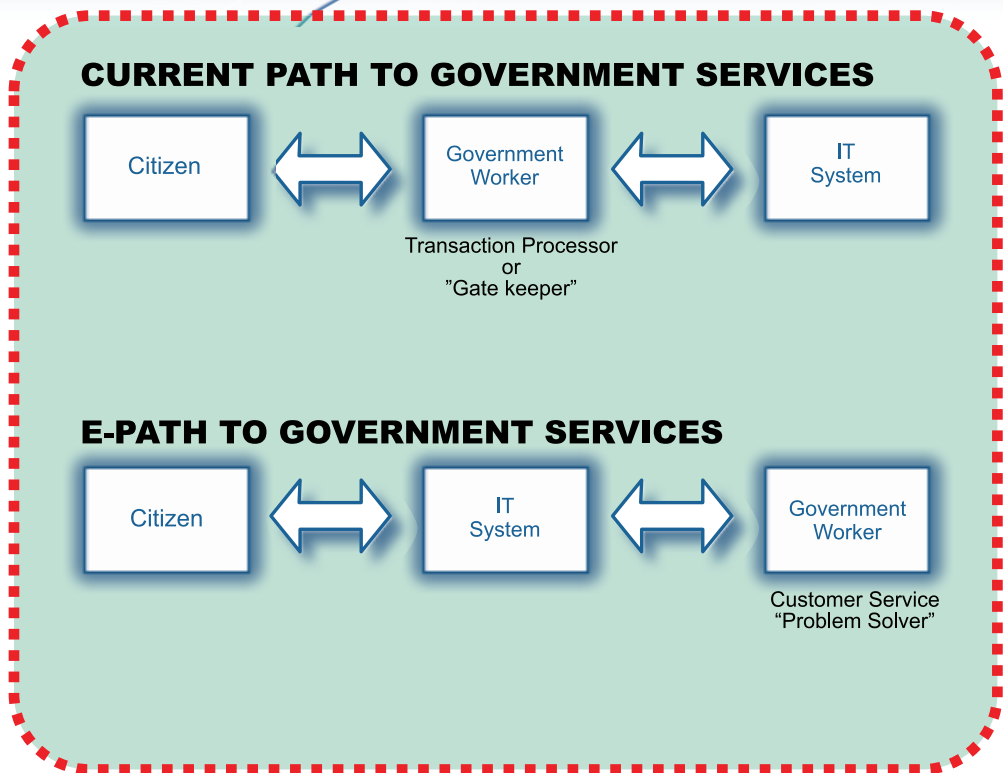
Figure 5: E-Governance Approach to Government Services

The Sections to follow briefly discuss policy matters relating to G2C, G2G and G2G.

3.2   Government Services to Citizens

The Government need to make concerted efforts to provide the best services to the citizens. This is because better informed citizens lead to a stronger society and stronger economy as shown in Figure 6 below.

Figure 6: Potential of E-Governance

Figure 7 shows main services that a citizen would like to receive from the Government from the time of birth to the time of death. The list is not exhaustive. DPSITM will need to identify all these services, and develop an implementation strategy. Since resources are limited, the implementation strategy will require prioritization. Prioritization will consider the extent of demand for that service, the visibility that can be created in order to have a significant initial impact, costs, the extent to which the service brings other government units together, and the level of support provided by interested partners.

In many E-Governance policies, a distinction is often made between E-Democracy and E-Government. E-Democracy deals with those services that support citizens in

democratic participation and politics. E-Government relates to those services needed to support all other areas of citizen's life.

With regards to E-Democracy, the Namibian Government will attempt to use IT through online forums, virtual discussion rooms, electronic voting, etc., to enable citizens to express their views, and directly question decision-makers, so that the citizens can contribute with an informed opinion to the democratic process.

Attempts will be made to integrate services of the Electoral Commission, as well as those of the Office of the Speaker of the National Assembly, and the Chairman of the National Council.

Regarding E-Government, the Government of Namibia will use IT resources to allow citizens to have greater access to information from authorities. Citizens will be enabled to understand where their taxes are spent and how decision making is done. This is an improvement towards more transparent, accountable, and open public institutions. Greater transparency will also help in the fight against corruption and fraud. Other common government services as listed in Figure 7 will also be provided online. As was discussed earlier, citizen portals, which are user friendly, and employing easy-to-use techniques will be developed for this purpose. For the sake of this document, E-Government and E-Governance are used interchangeably, with an all-inclusive meaning.
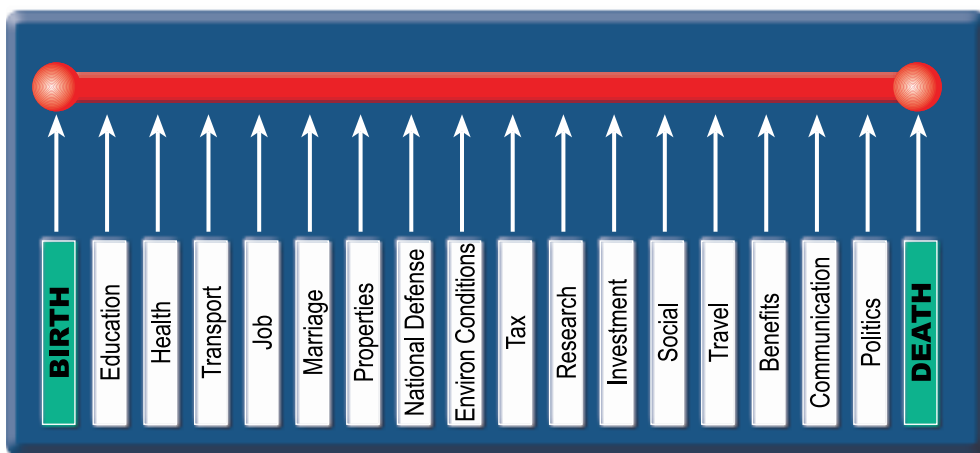
Figure 7: Examples of key areas of citizen's interaction with Government

3.3   Government Services to Businesses

Many businesses and other organizations interact regularly with the Namibian Government. It is therefore necessary as E-Governance is employed, to consider providing e-services for administrative information and requirements of these businesses. Examples of services that fall in this category are public procurement, customs and taxation, social contributions, geographical information, information on registration of a new company, application for necessary authorization and permits, etc. Figure 8 shows the different types of services an organization may require from the government since the time of its incorporation up to liquidation time.
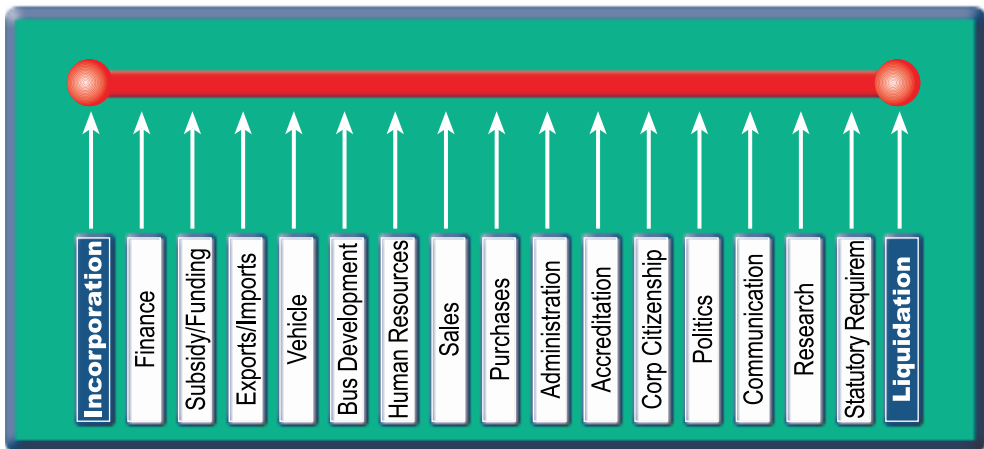
Figure 8: *Examples of key business interactions with Government*

The Government of Namibia intends to provide high quality E-Governance services that will lead to increased productivity and competitiveness in the private sector by reducing the cost of the public service and the costs at the business side, while increasing efficiency and reliability of information and service provisions.

As was the case with E-Government service provision to citizens, DPSIMT will make a prioritized strategy in automating services to businesses using ICT. Figure 9 shows examples of online seamless government services to citizens and business grouped in 5 different areas: Register or Submit Information, Obtain Information, Pay for Services, Seek Opportunities, and Make an application. This grouping can be utilized as a first level service Portal.

Register or Submit Information	**Obtain Information**	**Pay for Services**
• School attendance • Marriage • Unemployment Insurance • Tax returns • Voters roll • File Police reports • Death	• Legal advice/Legal aid • Job opportunities • Self help/Counselling • School/Tertiary Institutions • Elderly care • Overseas travel • Public transport schedules • Hospital services • Emergency medical advice • Traffic conditions	• Municipal services • Traffic/Police offences • License renewal

Seek Opportunities	**Make an application**
• Employment • Training/skills upgrading • Business • Export • Tender opportunities	• Learners License • Drivers License • Identity document • Passport • Permits • Pension benefits • Welfare grants • Government Housing • Govt. Subsides • Traffic conditions

Figure 9: *Examples of E-Governance Services Organised Logically for Access*

3.4   Government Services Within Government Units

The main means of interaction between different Government Units will remain to be the Government Intranet. DPSITM will work to ensure that all the individual Ministry databases are linked to the Intranet. Distributed database system concepts will be employed to ensure that these databases are interlinked. Efforts will also be made to group together operations that utilize similar information, and whenever possible allow only one data entry point for any data element. For example, the Ministry of Foreign Affairs registers citizens details to be able to issue passports and identity documents. The Electoral Commission maintains a voters' roll that records the same information. For those citizens who already have passports and identity documents, there is no need to capture again their details when registering for voting. All that is needed is simply a verification process.

As was mentioned before, DPSITM will develop specifications, standards and guidelines to allow Government Ministries to link their databases to the Intranet. These standards will cover aspects of hardware, networking protocols, software, etc., to ensure interoperability. Guidelines will also be needed to allow data integration, in order to share information within government units, and to have a single Gateway for portals, as well as linkages to third parties.

3.5   Social Inclusiveness

For E-Governance to be meaningful and derive maximum benefits, it is necessary that all citizens are provided with full opportunities for access. DPSITM will identify potential barriers and work to eliminate them in order to minimize hindrances to access. Some of the barriers to access include low internet penetration particularly in rural areas, limited IT services availability (e.g. Internet cafes, Digital kiosks, etc.),

lack of user-friendly access for people with disabilities or less IT-literate, limited mechanisms to work with third part intermediaries, resistance to change within the public sector, limited content, language limitations, connection to legacy systems, poor inter-ministerial coordination, and many others. DPSITM will undertake regular reviews to identify these barriers and design strategies to overcome them.

Ensuring access to government services by all is an important objective. Education and training are essential to ensure that citizens have the necessary digital literacy to be able to take full advantage of services offered by the government. DPSITM will catalyse the relevant Government Ministries to devise an E-learning strategy that will encourage IT literacy in schools and the public in general.

As discussed before, a multi-platform, multi-device access approach will be employed to avoid societal divide in accessing government services. In this regard, DPSITM will be required to develop a policy on widening public access to ensure social inclusiveness. Experiences of other countries will also be sought to adopt best practices and guidelines in the delivery of E-Governance services. Government together with IT and telecommunications need to improve the communication network from narrowband to broadband in all major towns of the country, and as far as possible, to other essential parts of the country.

3.6 Innovativeness

To be able to develop a robust E-Governance infrastructure, and exploit fully all its possible benefits, a lot of ingenuity and innovativeness is needed within the Government Ministries and IT professionals, who together need to drive the process forward. However, Namibia does not need to re-invent the wheel. One strategy is to ensure

that DPSITM is well appraised of E-Governance development and trends in other parts of the world. For this reason, it is advisable that DPSITM assign this role to specific individuals who will be required to follow-up and report on E-Governance trends, and best practices by sourcing information through the internet, attending conferences, and subscribing to relevant newsletters and journals. DPSITM will also need to work closely with IT research institutions in the country to explore new innovative solutions.

3.7   Archives and Records Management

Electronic document management systems often function with a focus on content management, without taking the administrative workflow in government into consideration. The adherence to sound records management principles in an electronic environment must be guaranteed. DPSITM in conjunction with the National Archives will ensure that every e-government project will incorporate a suitable records management component.

3.8   Archiving and Preservation of Records

The archiving and continuous ready availability of the institutional memory is a key factor in keeping government operational, and to ensure that the history of the nation is not lost to future generations. The fast cycle of innovation in hardware, software, storage media and recording standards renders electronic records unreadable and useless in very short periods, unless a conscious and sustained effort is made to keep them accessible. DPSITM in conjunction with the National Archives will ensure the archival transfer of electronic records and their continued availability through hardware and software emulations. Software licence agreements must take these concerns into account.

4. TRUST AND CONFIDENCE ON ONLINE DELIVERY

E-Governance services can only be offered within an environment where trust and confidence flourish. There is a need to always guarantee secure interaction between the government and citizens or businesses. The following Sections will examine the imperative measures which ensure that trust and confidence of citizens and businesses are developed and maintained. Protection of personal data, authentication, and identity management are primary issues that the E-Governance services need to provide.

4.1 Security

To ensure secure use of information in E-Governance across the different Government Ministries, DPSITM will develop and publish the Information Security Policy. This policy will provide basic guidelines, standards and requirements to ensure sensitive information in the hands of the Government is secure. All Government Ministries will be obliged to comply with the proposed policy. Within the Information Security Policy all government organs will also be required to provide regular security breach incident reports, correction and recovery plans, and an exemption report where the policy will not apply. The aim of the Information Security Policy is to establish and enforce the core rules, guidelines, regulations, norms and standards for safeguarding information from accidents or deliberate misuse. This is in order to assure the public of the security and confidentiality of their information and transactions on the open networks. The policy should cover the full spectrum of risks associated with creating, amending, transferring or storing information. Some aspects of the Information

Security Policy are: securing hardware, peripherals and other equipment; controlling access to information and systems; combating cyber-crime; complying with legal requirements; addressing personal issues relating to information security; and detecting and responding to security incidents.

4.2   Authentication

A trusted E-Governance service system require a widely accepted means for citizens and business to authenticate themselves. Significant developments in electronic authentication systems have occurred in the recent years. Access to citizen data must be in full compliance with legislation and international norms, where citizens are allowed, as much as possible, to retain control of their personal data. DPSITM will develop the Authentication Framework Policy which will consider the following:

*   Provide assurance that personal data is properly protected and that the risk of impersonation is minimized;
*   Ensure simplicity, transparency and economy to the user;
*   Use common systems across all Government Ministries for services rendered to citizens; and
*   Eliminate fraud.

The policy should, therefore, outlined common guidelines and authentication procedures for all Government Ministries, in a manner to increase confidence and trust of the citizens, and therefore encourage a wider use of E-Governance services.

The Policy will also set out criteria for the management of information by those providing authentication services, including the need to observe data protection principles to achieve effective security.

4.3 Smart Cards

DPSITM will consider how smart cards can be used to access the broadest range of E-Governance services. Consideration will be made on the possibility of also using smart cards provided by the private sector to access government services. Such an approach will benefit citizens (who are card users), the card issuer, as well as the Government. However, arrangements need to be made with the private organizations that are offering the smart cards, and agreement reached as to what government services can be incorporated in the smart cards. In this regard, a strategy will be developed by DPSITM to explore how this can be used to the fullest benefit of citizens.

4.4 Privacy and Data Sharing

ICT offers a wide range of opportunities for sharing data between Government Ministries on one hand, and the wider public on the other hand, within the E-Governance scope. Efforts will be made to ensure privacy is maintained and that internationally accepted data protection practices are observed in the Namibian E-Governance operations.

4.5 Legal Matters

Implementing E-Governance in Namibia will inevitably raise some fundamental legal questions, which will have to be addressed by way of a regulatory framework applicable to all sectors (thus, even to B2B transactions in the field of e-commerce). Such a development will indeed have important legal implications for the Namibian legal system as a whole. Among the more important questions that will need to be addressed by the legal regime include the following:

(a)   Re-defining or widening the interpretation of concepts such as "writing",

"   document", "contract" or "signature" to provide the legal basis when applied
         to information that is communicated in digital format;

(b)   Addressing statutory, regulatory and licensing requirements to enable transacting
        not only in person but also on-line; and how, when and where such transacting
        could be concluded; and

(c)   There should be uniformity in respect of the abovementioned where applicable,
        in policies, laws, standards, and trade practices.

Thus, to ensure the realization of E-Governance, a new legal framework must be put
in place to provide for the recognition of electronic messages, electronic authentication,
electronic payment systems standards and interoperability, procurement, customs
and taxation. Also, to protect the innocent from being exploited by cyber developments,
there should be regulation of consumer protection, the protection of privacy and
communications and security of electronic signatures. In addition, the law should
provide the basis for the further and ongoing development of ICT in Namibia and
this could include making provision for an appropriate institutional framework to
facilitate the requirements set by, among others, the Millennium Development Goals
and the Universal Information Society Initiative. In recognition of these requirements,
the Office of the Prime Minister has established a Working Group on E-Laws to
facilitate the due diligence process to identify all laws and legal principles that pose
barriers to e-governance and to suggest amendments thereto. Furthermore, this E-
Laws Working Group will serve as the coordinator for developments on Namibian law
to achieve future compliance, flexibility and regulation on electronic and cyber G2G,
G2C, G2B and B2B communications and transactions, and it will also study and
consider international precedents for application in, and harmonization of, such laws
in Namibia.

5.   IMPLEMENTATION FRAMEWORK

5.1   Essential Elements for Action

The Namibian E-Governance Policy as presented here recommends some essential aspects necessary to introduce and implement E-Governance in Namibia. These are listed below, not necessarily in order of priority or implementation.

Table 3: *Summary of Items for Action*

SUBJECT	ITEM	REMARKS
Base-line information	E-readiness	This will allow to establish the gap between the objectives and current situation. This gap will be used to refine action plans. E-readiness e-records ready to be done in consultations with Head of National Archives.
Access	Enrich Government Portal	Define how to advance from simple publishing of information to interaction, transaction, integration and transformation.
	Identify the necessary sectoral portals	For each portal identified define how to develop it from publishing, to interaction, transaction integration and transformation.
	Identify the necessary sectoral portals and identify joined-up services	Other private service providers who can add value to information should be identified, and modalities for collaboration defined.
	Define protocol for data exchange	A common protocol for data exchange is necessary to allow sharing data within government, and to also allow connectivity by third parties.
	Strategy for third parties	There are many intermediaries who seek information from government in order to support their clientele. Some of these may need electronic connectivity to government service resources. A guiding framework is needed for this.

Interoperability	Establish interoperability standards	This is necessary to ensure a cooperative, distributed and communicative network to deliver E-Governance services.
Service to citizens	List all services that can be offered to citizens	It is important to have a comprehensive list of possible services to citizens for planning.
	Develop an Implementation strategy for services to citizens	This needs to prioritise the order of implementation, outline resource required and attach time lines.
Services to businesses	List all services that can be offered to businesses	A comprehensive list is necessary for planning purposes.
	Develop an Implementation strategy for services to businesses	The strategy should outline resource requirements and time scales for implementation of various services.
Services within government	Develop a framework that allows to operate a distributed database system	This approach allows individual data sources to maintain their own data, while providing the ability to access and integrate data with other databases across the government.
	Identify and group similar services. Outline how such groups can work together in the provision of services	Citizens do not know, and need not know how the government is organized. They expect similar services to be offered from a single point. This requires grouping service providers in govt. along broad service groups.
	Define standards for connectivity to the Government Intranet	All Ministries should be required to connect all their databases to the Government Intranet. This needs definition of standards to allow connectivity.
Social inclusiveness	Identify barriers that prohibit access to the E-Governance services. Identify means to overcome them. Develop a public access policy that ensures social inclusiveness.	To ensure maximum utility of E-Governance resources with maximum service benefits, all citizens need to benefit.
	Formulate strategy to catalyse E-learning and IT-literacy to the public	Work with all stakeholders and relevant ministries to ensure that public skills are raised to benefit from the services offered. Strategies could include introducing IT-literacy courses early in schools. Incorporate IT literacy in adult education programmes, etc.

	Catalyse improved network quality and improved bandwidth	Consult with network service providers to ensure improved network quality and broadband provision to all major towns, and other important parts of the country.
Innovativeness	Formulate means to encourage innovativeness	The approach could include giving charge to specific individuals to follow information on E-Governance developments elsewhere in the world. This may also need linking with major IT research institutions in the country.
Security	Formulate an Information Security Policy	This is necessary to ensure trust and confidence of the public is maintained.
Authentication	Formulate an Authentication Framework Policy	Citizens need to check and verify information stored about them. They also need to be assured that individualized access cannot be impersonated.
Smart cards	Develop a strategy for using smart card	Use a smart cars to access government services holds. Immense benefits to card issuers, card user and government.
Legal matters	Outline a framework for legal advice	Legal advice is needed to ensure relevant laws are respected and that service providers are aware of them. Legal advice is also necessary to en-act new laws where necessary.
Human Resources Development	Develop a skills acquisition strategy	Skills are required in a wide range of areas in order to implement E-Governance effectively. Areas needing skills acquisition include, ICT, Leadership business skills, Customer service delivery, End-user skills, etc. Plans should be made for these training and agreements entered with training institutions.
Financial Resources	A development strategy to ensure 1% of Total Government budget is spent on E-Governance	DPSITM to engage government through the cabinet committee on public service to develop a policy that will ensure this commitment is achieved. Before a full policy is developed ministries should ensure individually that in their budgets at least 1% is allocated to E-Governance.

5.2 Roles and Responsibilities

The Roles and Responsibilities of key players are briefly outlined here. A strong and innovative leadership is needed within the Government to drive the E-Governance process. Such leadership need to be backed by a technical unit that provides advice and informs on possible ways forward.

Cabinet

E-Governance in Namibia need to be driven by the Cabinet itself. This will make it easy for resources to be identified and directives regarding E-Governance to be issued and implemented forthwith. In this regard, the Cabinet Committee on Public Service will be responsible to drive E-Governance matters on behalf of Cabinet.

Office of the Prime Minister

In line with the Public Service Act the Department of Public Service Information Technology management (DPSITM) will be the technical unit that advises the Prime Minister in the implementation of ICT programmes and E-Governance. This includes the formulation of all necessary policies, standards and guidelines. The following are the general responsibilities of the Office of the Prime Minister:

- suggest the development, and monitor implementation of policies, standards and guidelines, ensuring that such policies and standards are adhered to;
- support Government Offices, Ministries and Agencies (O/M/As) in their development of E-Business strategies (portals, internet resources, etc.);
- develop shared infrastructure and applications in collaboration with lead Government O/M/As;

- promote common policies on the management of information including privacy;

- develop cross-cutting services on the Namibian Government Intranet;

- develop extranet links with the wider public sector; and

- coordinate action on skills for Information Age Government.

GRN E-Government Coordinating Committee

This Committee comprises representatives from all Government O/M/As, Major Government Institutions, and selected stakeholders. In its advisory capacity, the Committee will assist and advice OPM in assessing policies, standards and procedures, in evaluating progress, in identifying problems and suggesting the way forward, and in framing action plans. Members of this Committee will also be responsible for the implementation of E-Governance in their own respective Government O/M/As. In nominating members to this Committee, O/M/As should take note of this requirement. The GRN E-Government Coordinating Committee will work closely with the Public Services Committee on Information and Technology (PSCOIT), in recognition of the symbiotic roles of the two Committees.

O/M/As E-governance Implementation Committees

Each Government O/M/As will be required to establish an E-Governance Implementation Committee. This Committee will receive directives from OPM to adopt given policies, and implement specific E-Governance projects within the O/M/As. This Committee from every O/M/As will report progress regularly to the Office of the Prime Minister. The O/M/As E-Governance Implementation Committees will be responsible for developing and delivery of E-Governance strategies that will set out plans for:

- developing E-Governance projects;

- converging with standards and framework policies;

- providing services which are accessible via the government and other portals;

- electronic service delivery and internal process transformation;

- implementing the recommendations from the review of major IT projects; and

- developing IT skills and awareness.

Regional and Local Governments

Regional and Local Governments need to work with the Central Government in the development of portals and linking their LANs and Extranets to the Government Intranet. Through the Ministry of Local, Regional Government and Housing, the Office of the Prime Minister will work out a strategy how to incorporate the Regional and Local Government and authorities into the E-Governance framework. This will include outlining specifically identifiable projects, as well as information sharing.

Libraries for Public Access

For all citizens to have ICT education and achieve life long learning, it is necessary to ensure the availability of such services not only within the formal education community, but also beyond into the informal education community. Libraries and related units should undertake this responsibility to serve both formal and informal education systems and ensure access for all. They should act as outposts for distance learning and public access to E-Governance services. They need to create their own internet portals that link to the government sectoral portals to provide access to the community they serve. In this regard, all community libraries should attempt to have internet enabled ICT facilities that support the E-Governance activities.

Industry

Many business and commercial organizations will be involved in implementing E-Governance in three main ways:

- delivery of services either directly or in partnership with public sector organizations. Identify the right packaging of services, core and value addition, that provide real benefits to the citizen, business and government;

- acting as incubators to provide a source of best practice and support for E-Governance; and

- working in partnership with government to provide infrastructure and services within government.

A significant element of the E-Governance strategy will be for government to provide the right environment for innovative business and commercial models to flourish. Of particular significance in this regard, is the collaboration between the Government and the ICT Alliance (or any national ICT Association). The Government will seek advice from ICT Alliance (or any national ICT Association) to assist in outlining how the government could work with industry to maximize intended benefits of E-Governance.

Learning Institutions

Learning Institutions should design programmes that are intended to support the transformation process within the public sector. In addition to ICT skills, these will include project management, communication management, change management, business systems development, communication skills, etc. Specific contracts will be entered between Government and Training Institutions to ensure that this happens.

5.3   Accelerated Skills Acquisition

The implementation of E-Governance will require significant skills upgrading, and recruitment of IT experts in various Government Ministries to implement the vision. Currently, there is a dearth of computer skills across all government units. The E-Readiness study will also attempt to identify skills gap in the Government Ministries. This will help as a first step to designing a comprehensive skills acquisition strategy. In this regard, there are four areas that need urgent attention, which are not limited to ICT only:

- Leadership and Policy Making – there is need to develop an understanding of new technology for policy making, service delivery, management and organisation culture. This understanding is needed at all levels of Government Ministries.

- Change Management – E-Governance involves doing things in a new and different way. Those who are driving the process at the centre, as well as ministerial levels, need to be acquainted with change management.

- Intelligent customer – There is need to be able to procure, finance, negotiate and manage relationship with suppliers intelligently. Government employees need to develop a business culture in this regard.

- End-user skills – There is a need to train staff to allow them to use the new E-Governance tools for better service and more effective working.

Regarding skills acquisition, the UK E-Government Strategic framework identifies the following skills map necessary to implement E-Governance, which we can also adopt.
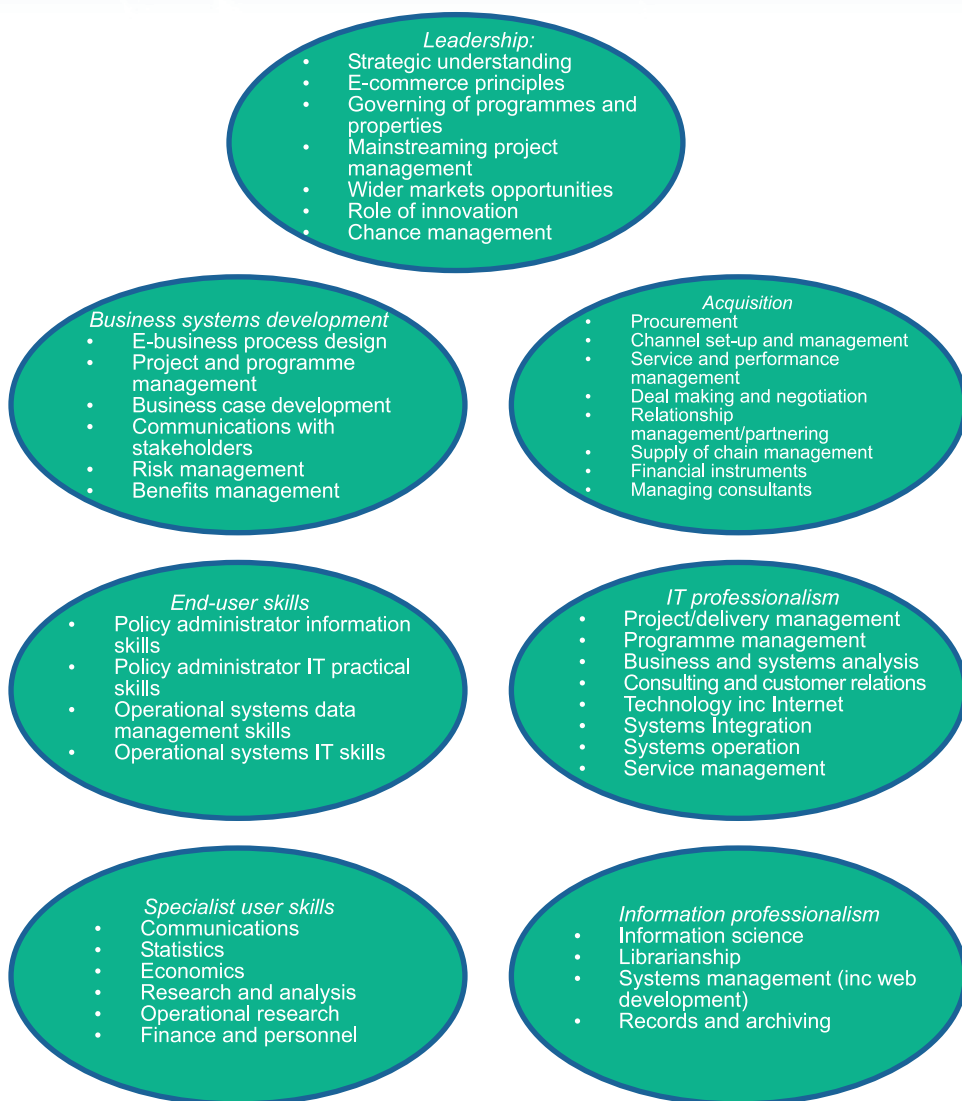
Leadership:
- Strategic understanding
- E-commerce principles
- Governing of programmes and properties
- Mainstreaming project management
- Wider markets opportunities
- Role of innovation
- Chance management

Business systems development
- E-business process design
- Project and programme management
- Business case development
- Communications with stakeholders
- Risk management
- Benefits management

Acquisition
- Procurement
- Channel set-up and management
- Service and performance management
- Deal making and negotiation
- Relationship management/partnering
- Supply of chain management
- Financial instruments
- Managing consultants

End-user skills
- Policy administrator information skills
- Policy administrator IT practical skills
- Operational systems data management skills
- Operational systems IT skills

IT professionalism
- Project/delivery management
- Programme management
- Business and systems analysis
- Consulting and customer relations
- Technology inc Internet
- Systems Integration
- Systems operation
- Service management

Specialist user skills
- Communications
- Statistics
- Economics
- Research and analysis
- Operational research
- Finance and personnel

Information professionalism
- Information science
- Librarianship
- Systems management (inc web development)
- Records and archiving

Figure 10: *Skills requirements for successful E-Governance Implementation*

A skills acquisition strategy will be designed, together with major training institutions in the country. Where no institutions in-country has the required expertise, arrangements will be made with other institutions outside the country.

5.4   Action Plans

DPSITM has developed an E-Government strategic project plan for the Namibian Public Service, which identifies initial areas of intervention, including a budget for the initial phase of implementation. Performance indicators through the implementation process have been outlined as listed in Table 4 below. These will be used to assess progress.

Table 4: *Performance Indicators for E-Governance*

Seamless access	It will not be necessary for citizens to know how government is organized, what an office, ministry or agency does, or whether national or sub -national government exercises a particular function.
Multiple access mechanisms	Citizens who choose not to use online services and those who may not have the enabling infrastructure will still be able to interact with government using traditional mechanisms.
Anywhere, anytime	All government services which can be practically and legitimately delivered electronically will be available anywhere, anytime.
Seamless back office	E-Government will be based on an integrated electronic service delivery platform.
Common infrastructure	Integrated service delivery will require seamless business processes and technologies that an inter-operate.
Integration mechanisms and tools	Software applications and data must support the integration of common business processes. Government processes and systems will be based on ICT such as electronic billing and procurement solutions.
Easy access to information	New technologies and active management of information resources will provide easier, more reliable and predictable access to government.
Easy feedback to government	Electronically delivered services will allow easy feedback on content, quality and satisfaction.
Open and inclusive legislative and policy development processes	New technologies will allow increased consultation and discussion between government, citizens and businesses.
Authentication	The technology will protect citizens information and privacy by ensuring the particular person accessing information or a service is actually the person who they claim to be.
Privacy	Citizens privacy will be maintained and respected
Queues	Reduce numbers of citizens queuing up for services rendered by offices, ministries and agencies as well as number of citizens accessing the online services.
Feedback	Web-based feedback from users as well as number of multi purpose community centres/kiosks set up.

In implementing E-Governance, projects will need to be identified, and prioritized for action. For each project, there will be a description stating the ambition level for each aspect. Ambition levels refer to the 4 phases of E-Governance maturity namely information, interaction, transaction, and transformation and integration as described in Figure 2. Projects will only have value if embedded in the entire E-Governance vision (as expressed by the objectives), and supported by a strategy. The UK E-Governance policy employs an approach to "Think Big, start small and scale fast." In this approach the entire E-Governance objectives provides the vision. The vision should be big.
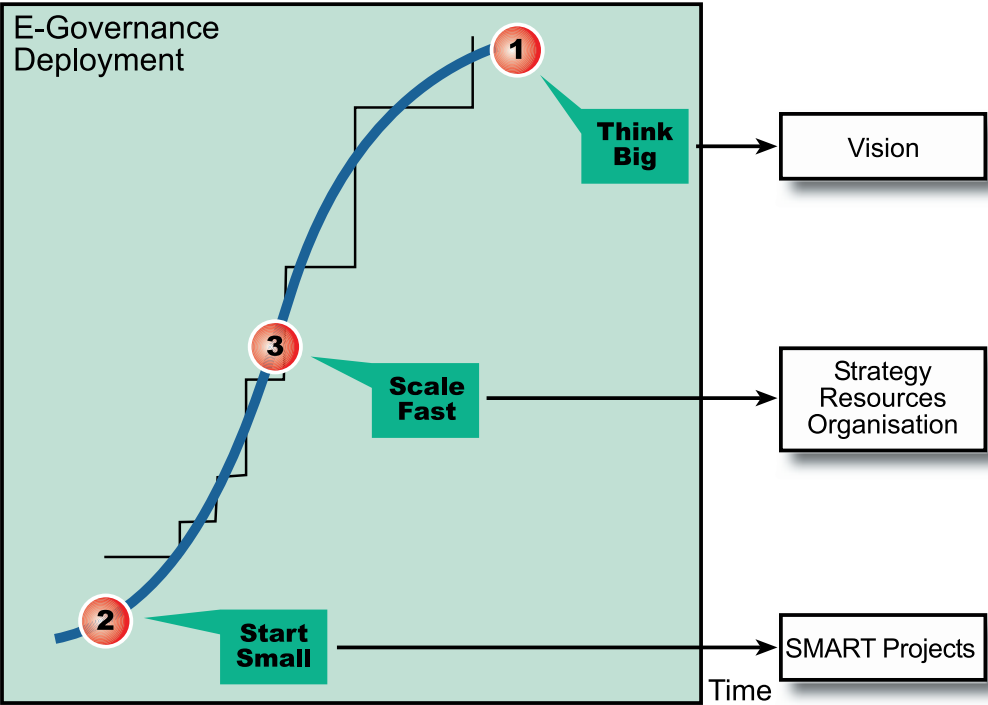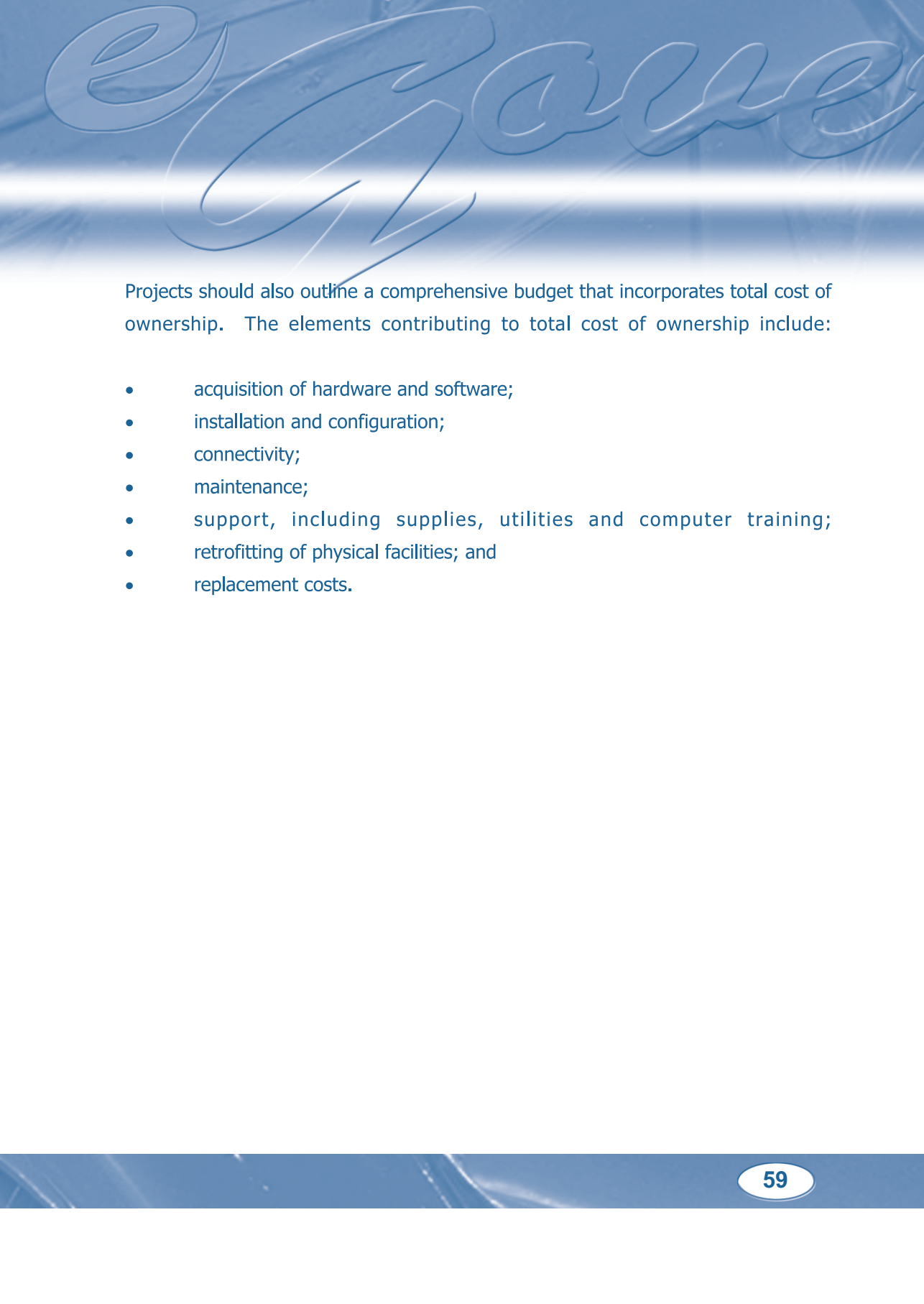
Implementation is comprised of many projects, some of which are small and easy to start with. This is essential to create instant success which becomes a positive driving force both internally and externally. These initial projects are called SMART (small, measurable, accountable, realistic & time related) projects. Once initial success is apparent, a profound strategy is developed quickly to acquire necessary resources, identify and eliminate bottlenecks to move fast to the vision without loosing the initial momentum.

For each project identified for implementation, a goal should be developed which supports the objectives of E-Governance. Projects should be designed such that they are SMART (i.e., simple, measurable, accountable, realistic and time-related). The projects should also define who are involved and major processes needed as outlined in the Table 5 below.

Table 5: *Performance Indicators for E-Governance*

Projects		
What	*Who*	*Process*
Define SMART objectives Type of project: e-Democracy e-Government Internal External Complexity: Phase 1 Phase 2 Phase 3 Phase 4	Cross-government steering committee (responsible) Project manager (Coordinator) Project teams, managers and employees (implementation) End users (testing) Advisors (coaching and expertise)	Symptoms Root Causes Problem Solutions (combinations of technologies and policies) Implementation plan Goal Measurements Time Quality

Projects should also outline a comprehensive budget that incorporates total cost of ownership. The elements contributing to total cost of ownership include:

- acquisition of hardware and software;
- installation and configuration;
- connectivity;
- maintenance;
- support, including supplies, utilities and computer training;
- retrofitting of physical facilities; and
- replacement costs.

6.   CONCLUSION

This document has outlined the Namibian E-Governance Policy for the Public Service. The policy has outlined key benefits of E-Governance from which objectives for E-Governance implementation in Namibia were derived. The overall policy has described a framework of approach and identified essential elements that need consideration. A number of strategies and policies that need to be formulated in order to support implementation of E-Governance have been identified in broad-level guiding statements. Key issues that revolve around government services to citizens, to businesses, and to other government organizations have been covered within the policy framework.

Central in achieving the objectives of E-Governance is the interlinkage and integration of services, both at technical, and human operational levels, and also the need to ensure access by all, so that E-Governance does not result in further seclusion of the already marginalized sections of the community. These goals alone present a significant challenge to the Government.

The success of E-Governance also require a strong political will and support. It is recommended that this be derived at no less a level than the Cabinet. DPSITM is charged with the overall responsibility for implementation. To be able to discharge this responsibility adequately, dedicated staff for E-Governance are needed.

Elements of security and legality of using data have also been covered. It is essential that citizens have trust and confidence that their personal information will not be misused, and if that happens, then there is ample provision for recourse to the law.

Training is an essential element in conceiving, implementing, and maintaining E-Governance projects. A broad skills map needed for this has been outlined. The skills required include project management, understanding of business and procurement processes, end-user skills, as well as high level IT skills. To acquire these will need a skills acquisition strategy that will involve major training institutions in the country.

Carrying the E-governance vision forward will require a great deal of ingenuity and innovativeness. This policy presents an outline to be used for implementation. It is suggested to Think big, start small, and scale fast. Thinking big outlines the vision. In starting small, projects should be identified that can show immediate success.

Such projects need to be SMART: simple, measurable, accountable, realistic, and time-related. Each such project should have a goal that addresses part of the E-Governance objects, should define those who are involved, and should outline processes needed.

In drafting this policy, experiences from other countries were widely utilized, and the framework is in line with other E-Governance policies elsewhere. This policy, therefore, in itself provides one of the ingredients necessary to realise the E-Governance dream for the Namibian nation.