

# Tanzania e-Government Strategy

United Republic of Tanzania



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## ABBREVIATIONS

24/7	:	Twenty Four Hours a Day, Seven Days a Week
CIO	:	Chief Information Officer
CSF	:	Critical Success Factors
eGA	:	e- Government Agency.
G2B	:	Government to Business.
G2C	:	Government to Citizens
G2G	:	Government to Government.
GIS	:	Geographical Information Systems (GIS)
HCMIS	:	Human Capital Management Information Systems
HR	:	Human Resources.
ICT	:	Information and Communication Technology
IEC	:	Information Education and Communication.
IFMS	:	Integrated Financial Management Systems.
ITN	:	Independent Telecommunication Network
KPI	:	Key Performance Indicators.
LGAs	:	Local Government Authorities.
LMS	:	Land Management Systems.
M&E	:	Monitoring and Evaluation.
MDAs	:	Ministries, Departments and Agencies.
MIS	:	Management Information Systems.
MKUKUTA	:	Mkakati wa Kukuza Uchumi Tanzania



PO-PSM	:	President's Office, Public Service Management
PPP	:	Public Private Partnership.
TV	:	Television
VSAT	:	Very Small Aperture Terminal.
WAN	:	Wide Area Network



## FOREWORD

It has been more than a decade since the government released its National Information and Communications Technology (ICT) Policy (2003). Through that period, several initiatives have been implemented to achieve the vision outlined in the policy, that includes areas of human resource management and infrastructure. There is no doubt that the public in Tanzania could have “better services” and “effective and responsive government” through increased use of available Information and Communication Technologies.

Despite these efforts, e-Government initiatives in the country have been at times ad-hoc and uncoordinated. This is hardly surprising, given that the world of e-Government is barely more than a decade old and is continually evolving and changing with the advent of new and more advanced ICTs.

e-Government is more than just the adoption of ICT in the government, rather it is about applying ICT to reform and improve government processes, and ultimately making the services more convenient and easily accessible.

This Strategy is therefore intended to provide a more co-ordinated and citizen-driven focus for the Tanzania’s e-Government initiatives, and thus ensure they bring services closer to citizens through an organised and holistic adoption of ICT.

Building on achievements made to date, the Strategy sets ambitious and specific goals and targets whose achievement will not only deliver better services to more citizens, but will also result in transparency and cost savings in the delivery of existing services, while enabling many new types of services to be created.



In addition the strategy is not an attempt to centralise e-Government initiatives; rather to provide a clear roadmap emphasizing on effective and efficient utilization of existing resources, coordinated efforts and sharing of common resources for the government as a whole in order to deliver quality and effective services to the public.

I am confident this Strategy will bring positive evolution in the country, and thus I commend it to you.

A handwritten signature in blue ink, consisting of a large, stylized 'C' followed by a horizontal line and a small vertical stroke.

**HON. CELINA O. KOMBANI**  
**Minister of State, President's Office – Public Service**  
**Management (PO - PSM)**





## EXECUTIVE SUMMARY

e-Government is a key enabler for accelerating work processes, delivering services to citizens and businesses, increasing transparency and accountability, while also lowering costs of operation. An e-Government strategy is a guide to show us ‘where we are at present’; ‘where we can go’; and ‘what we are supposed to do to reach there’.

Tanzania’s National ICT Policy of 2003 was promulgated by the Government to address the need for Tanzania to become a knowledge-based society, as well as the need to harmonize independent ICT related initiatives that aimed at improving service delivery in all sectors. This policy consists of ten pillars, one of which addresses the use of ICT within the public service to enhance service delivery to the general public.

In formulating this strategy, a situation analysis was undertaken to assess the current state of e-Government implementation in Tanzania. Together with desk research, a number of Ministries, Departments and Agencies (MDA’s) were consulted to gain a clearer understanding of the concerns and practical challenges these institutions faced when using ICT to improve service delivery, increase productivity and enhance transparency. Through this assessment, a range of significant issues which impeded the development of e-Government were identified.

This e-Government strategy aims to provide a clear road map to accelerate Tanzania Government’s effort toward delivering quality and responsive services to the public. In addition, it shall facilitate



greater coordination within the public sector and modernise the Government's complex administration. To achieve this, the following objectives must be met:

- Institutional framework developed by 2018
- HR capacity improved by 2018
- Government-wide electronic infrastructure developed by 2018
- Government-wide shared systems implemented by 2018
- e-Service flagship projects implemented by 2017
- e-Government awareness increased by 2016

These objectives, together with their implementation strategies and targets (expected outputs), will provide guidance towards fulfilling the *vision of becoming an effective Government in delivering innovative public services enabled by ICT.*

The success of e-Government will necessarily depend greatly on well-trained people implementing and then operating e-Government infrastructure and applications. There are also a number of other areas of vulnerabilities that could hinder the realisation of this Strategy. However, mitigation for each of these has been identified to ensure that our efforts in e-Government will create great value for and profound impact to our nation and its people.



## CHAPTER 1

### 1.0 Introduction

Information and Communication Technologies (ICT) has provided Governments across the globe new ways of doing business and delivering services. ICT is perceived as a key enabler to governments to enhance their relationship with their clients, citizens in particular, as well as provision of competitive public services. This is from the fact that citizens are now exposed to more responsive ICT-enabled products and services. They therefore expect their Governments to provide equivalent and even better services. It is imperative therefore that the public sector respond to the opportunities offered by ICT that could enable it to improve service delivery.

Implementation of ICT for use in the Government can be challenging and risky. This is not only due to the enshrined nature of Government businesses, but also capacity to manage and guide ICT projects successfully. It is therefore imperative that adequate planning and guidance is provided to help governments to successfully implement ICT initiatives.

The Government of Tanzania recognises the importance of ICT in the public sector. It has therefore prepared this National e-Government Strategy 2013-2018 to provide the required guidance on exploiting the ICT opportunities and addressing challenged for value added public sector services.



### 1.1 E-Government Definition and Concepts

*“e-Government” is the use of ICT to enhance work efficiency and improve service delivery in order to meet the needs of the public in a responsive and transparent manner. e-Government is expected to facilitate the interaction between the Government and its clients including the citizens (G2C) and business communities (G2B), as well as within the public administration itself (G2G).*

#### Expected e-Government evolution in Tanzania

In the Tanzanian context, e-Government evolution is expected to evolve through four key stages. They are 1) digital presence, 2) interaction, 3) transaction, and 4) transformational stages.

- **Digital Presence:** This phase will involve simple provision of government information through electronic means. In this stage, Government organisations will be expected to be providing one way information and limited interaction to their clients.
- **Interaction:** In this stage, Government organisations are expected to be able to use ICT to provide some degree of online interaction with their clients. For instance, citizens can be able to enter requests, complaints, or job applications online, and expect to obtain an appropriate response. In this stage, secure transactions such as financial or confidential transactions that require a high degree of security-clearance authorization and audit capacity are not expected. However, the nature and capacity of each government organisation will determine the degree of sophistication in each services provided.
- **Transaction:** This stage is characterised by the provision of secure transactions with high level of authorization.



Government organisations are expected to be able to provide capabilities and features that will allow clients to complete their transactions in full without the necessity of visiting Government offices. Such services may also allow the Government to function in a 24/7 mode. Typical examples may include one-stop online centres for citizens to apply for passports, permits or licenses, allowing them also to make payments online.

- **Transformation:** In this stage government organisations are expected to have been well joined and working together at all levels. The achieving of this stage will allow Government clients to interact with one Government instead of individual Government organisations. This phase require collaboration to bring together suppliers, consumers and the whole government itself into a seamless network focussed on increasing value creation.

## 1.2 E-Government - A Strategic Imperative for Service Delivery

Like many other Governments across the globe, the Government of Tanzania has been operating in a traditional manner by using manual processes. However, the Government has resolved to reform and provide high quality, modern services to its clients. In this way, the Government will be able to create conducive environment for knowledge economy and sustainable social-economic development in Tanzania.

The government recognises the potentials of technologies such as computers, mobile devices, the Internet, Television, radio, and many others in enhancing services delivery. Therefore, the government decided to exploit such technologies to enhance its



relationship with citizens, business communities, government employees, as well as other Governments.

In addition, the Government acknowledges that, successful implementation of e-Government in Tanzania requires deliberate measure to reform and interconnect the entire Government. Respectively, streamlined and harmonisation of business process in the Government is inevitable. Government Ministries, Departments and Agencies (MDA) are required to operate in a collaborative, connected manner and reduce the existing operational silos that isolate one organisation or department from the other. This will ultimately bring benefits such as enhanced responsiveness in service delivery and the ability to quickly deploy services to different sites, including remote locations according to emerging needs.

An efficient, effective and responsive Government with better services is a strategic intent for e-Government in Tanzania. The Government envisions a connected and responsive one Government in Tanzania, enabled by ICT. In this intent, the Government affirms that it embraces e-Government at all public sector levels. It will therefore promote, facilitate, and assist the achieving of this intent. The government is set to address challenges related to e-Government implementation in the country. This strategy states and suggests ways in which this intent will be achieved.

### **1.3 Approach for Developing this Strategy**

The development of this strategy adopted an analytical and participatory approach. It involved critical analysis of the current strategic position of Tanzania and conceptualising the required



future position. Accordingly, various sources were consulted in the process of developing this strategy. They include analysis of the national and international strategic documents, review of the current ICT context in Tanzania, and consultation with ICT and strategy development experts in the government. These sources provided useful insights for development of the strategy.

#### **1.4 Structure of this Document**

This National e-Government Strategy 2013-2018 is organised into five main chapters. Chapter 1 introduces the e-Government imperatives; chapter 2 is the situational analysis. Chapter 3 provides a strategic view towards e-Government, while chapter 4 details the strategies proposed. Chapter 5 details the critical success factor for this strategy.



## CHAPTER 2

### 2.0 Situation Analysis

In the Tanzanian context, e-Government is about “Delivering quality services to the public through technology”. It involves using ICT to support processes within the government as well as for the delivery of services to beneficiaries, such as citizens, businesses and other organizations in all sectors.

In that regard, the Government has long recognized the importance of enhancing service delivery through ICT. The key government strategy paper National Vision 2025 noted that “ICT opportunities can be harnessed to meet national development goals”. Meanwhile the medium term National Strategy for Growth and Reduction of Poverty (MKUKUTA), the Tanzania’s Mini Tiger Plan, and the Tanzania long Term Perspective Plan 2011/12-2025/26 emphasises the need to increase the application of technology in accelerating productivity.

Furthermore, in recognition of the need to reduce the possibility of Tanzania being further excluded from the global knowledge-based society, as well as the need to harmonize independent ICT-related initiatives, the Government promulgated the National ICT Policy in 2003. This Policy consists of ten pillars, one of which specifically addresses the use of ICT for enhancing the delivery of public services in terms of quality, quantity and accessibility.





In order to implement National ICT Policy (2003), the Government in 2004 decided to start by implementing e-Government with a Cabinet directive that can be summarised as follows:

- Construct a Government-wide unified communications network for e-Government implementation
- Create awareness of strategic opportunities for ICT use across the Public Service
- Establish a focal point to coordinate the existing, fragmented and isolated e-Government initiatives

## 2.1 Notable Achievements

Following the Cabinet decision, progress has been made in the following areas:

- The establishment of the e-Government Agency in Tanzania.
- Installing a Government wide network; seven MDA's have already been connected.
- Government Network Management Centre has been built at the PO PSM. The Centre will host the hub of Government's secured network for voice and data communications, and spearhead coordination of infrastructure, software and security measures within Government.
- More MIS units have been established in MDAs and Regional Secretariats to provide the first level of ICT support services.
- ICT sensitisation and training has been done as a continuous process to more than five thousands (5,000) public servants and other stakeholders.



- Installation of several government-wide systems has been successfully done, enabling the government to more efficiently, effectively and reliably perform key business processes; these systems include Human Capital Management Information System (HCMIS), Integrated Financial Management System (IFMS), Land Management System (LMS) and Geographical Information System (GIS).

A situation analysis for e-Government readiness in Tanzania was conducted by examining the Government itself in relation to the following: - Institutional arrangements, human resources, budgetary resources, inter-MDA's communication flows, national infrastructure, ICT capacity levels, ICT related policies, Public Private Partnerships (PPP), and other relevant factors.

The analysis was based on desk reviews of previous work, stakeholder analyses and consideration of strengths, weaknesses, challenges and opportunities within and around Tanzania. The results of this analytical work emphasized the need for a holistic approach to e-Government implementation in Tanzania.

## 2.2 Stakeholders' Analysis

The potential stakeholders of e-Government in Tanzania include the Private Sector, Non-State Actors, Citizens, Training Institutions, Politicians, Public Servants, MDAs, LGAs, Development Partners and other Governments. The analysis revealed that most stakeholders share common expectations which include improved working environment through use of technology, access to reliable and timely information services, access to connectivity services for information sharing, effective



communications and good governance. It further identified the need for reliable, available and secured services.

### 2.3 Significant Issues

Successful implementation of e-Government in Tanzania will require the addressing of various issues. Through stakeholder's analysis some compelling issues were identified that would have to be addressed by the e-Government Strategy, as follows:

- Inadequate policy, legal and institutional framework for e-Government
- Uncertainties in e-readiness for e-Government
- Inadequate service delivery infrastructure and fragmented delivery channels
- Silo-based e-Government initiatives
- Absence of bilingual local content in e-Government
- Sustainability of ICT adoption in the public service
- Low awareness of e-Government opportunities
- Lack of adequate and expertise in ICT human resources
- Attitude and cultural challenges in the use of ICT
- Low robustness and security of ICT infrastructure
- Lack of integrated information systems
- Lack of a framework to leverage private sector resources and community participation
- Limited research and innovation on e-Government in Tanzania



### 2.4 Observation and Key Findings in MDAs/LGAs

To gain a clear understanding of the current development of e-Government in the public sector, 17 MDAs<sup>1</sup> and 3 remote LGAs<sup>2</sup> were visited for the purpose of collecting information on the current state of ICT implementation in the public sector and its impact on service delivery.

#### *General Findings*

- a. In general, the importance for e-Government is well recognised by all the MDAs/LGAs visited. Many MDAs/LGAs have indicated that strong desire to use ICT to modernise administrative and improve service delivery.
- b. Most MDAs/LGAs have expressed their support for the vision of e-Government but due to the lack of expertise,

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1 The 17 MDAs visited were:

- Ministry of Finance and Economic Affairs
- Ministry of Lands and Human Settlement
- Ministry of Health and Social Welfare
- Ministry of Agriculture and Food Security
- Ministry of Tourism and Natural Resources
- Ministry of Science, Communication and Technology
- Ministry of Home Affairs
- Ministry of Industry, Trade and Marketing
- Business Registration and Licensing Agency (BRELA)
- Public Procurement Regulatory Authority (PPRA)
- Tanzania Revenue Authority (TRA)
- Tanzania Communication Regulatory Authority (TCRA)
- National Identification Authority (NIDA)
- Registration, Insolvency and Trusteeship Agency (RITA)
- Bank of Tanzania (BOT)
- Tanzania Ports Authority (TPA)
- National Social Security Fund (NSSF)

2 The 3 LGAs visited were:

- Arusha District
- Arumeru District
- Loliondo (Ngorongoro) District



- only a few MDAs/LGAs are actively developing their ICT strategy/plan.
- c. Many MDAs/LGAs also expressed the need for greater commitment on e-Government from public sector leaders as the transformation will require strong mandate and sound investments.
  - d. While there were some progresses over the past years, most MDA/LGAs felt that e-Government efforts need to be further aligned and coordinated across the public sector to avoid silo implementation and wastage of resources.

### ***Implementation and Operational Issues***

- a. Due to fragmented and ad hoc implementations, the value of ICT investments is neither always apparent nor defined. The lack of ICT process governance across the public sector could be better strengthened to ensure value for ICT is maximised.
- b. In most cases, ICT is perceived as a non-essential support tool and is not aligned to work processes or service delivery. This has resulted in low strategic focus and rudimentary use of ICT in many MDAs.
- c. Generally, there is no Government-wide established ICT architecture, integration and standardisation. This leads into low consistency of ICT applications and escalating support and maintenance costs.
- d. With the exception of a few MDAs, ICT literacy of public sector is still low at all levels. The situation leads to low readiness of Government employees to embrace ICT that consequently hinders the deployment of ICT systems and poor usage.



- e. The level of current human capital and capacity ICT are inadequate to create significant impact. In that recognizant, ICT units in MDAs/LGAs and across the public sector need both the advanced technical and business management skills to facilitate the innovative use of ICT.
- f. Legislations to regulate electronic transactions and protect electronic information are not in place currently. This has resulted in the low confidence in the use of ICT to enable electronic services.
- g. The current ICT industry is at nascent stage and could impede growth of e-Government initiatives. Without a competent local ICT industry, the continued dependency on foreign expertise will increase cost of ICT adoption. Therefore, there is a need for the government and stakeholders to adequately invest in ICT.

### *Applications and Infrastructure Issues*

- a. Many MDA websites are in place and majority of them are still in the presence stage of e-Government evolution. They mainly provide information regarding the organisations and the services they provide. Limited initiatives exist that provide integrated portal for internal government processes and services.
- b. There are clear indications that show that there is high demand for ICT applications in the MDAs/LGAs; however, only few operational systems have been deployed. Some MDAs have very basic office automation support systems due to lack of ICT infrastructure and expertise.



- c. Few examples of ICT planning and implementation were done rigorously resulting in piece-meal deployment of ICT applications in MDAs/LGAs that are driven by ad hoc requests.
- d. While majority of MDAs and LGAs have government email domains to facilitate government-wide electronic communication, they are not widely used. The same applies to other communication tools such as intranet and video conferencing.
- e. Government-wide network project is in progress but need to be accelerated. Currently, only 7 MDAs are connected and plans are underway to connect all MDAs and LGAs.
- f. In the Local Government Authorities (LGAs) visited, while there were a handful number of computers available, use of ICT and other office productivity tools was still low. Moreover, access to the Internet was limited due to connectivity problems. Most of the LGAs are connected via Very Small Aperture Terminal (VSAT) and Copper wire.
- g. At the district level, ICT use and internet access in the household are almost non-existence. However, a high proportion of the residents have mobile phone access which support texting technology.

Based on these findings, an aggressive e-Government strategy and implementation road map have been developed to stimulate and facilitate the implementation for e-Government initiatives in the country.



## CHAPTER 3

### 3.0 Moving Forward – Our Vision

#### 3.1 Vision

*“To be an effective Government providing innovative public service delivery enabled by ICT.”*

#### 3.2 Goals

The key goals of e-Government are:

- a. To deliver high quality public services with improved accessibility, responsiveness, and efficiency.*
- b. To strengthen oversight and coordination across the Government and its partners, and enhance productivity and knowledge sharing.*
- c. To provide integrated, secured and innovative solutions to enable high quality service delivery and improvement of work processes.*

#### 3.3 Guiding Principles

The guiding principles for developing e-Government initiatives and services are geared towards putting life into the e-Government motto of **“Responsive Government – Enabled by Technology”** (which translates into Kiswahili as follows: ***Serikali sikivu – inayowezeshwa na Teknolojia***). The seven guiding principles are:





1. **Service Innovation:** The use of e-Government must be geared towards introducing new work methods by conceiving new operational processes and changing current processes, as well as by changing the Government's relationship with the public. Any such innovations must clearly identify resource requirements for sustainable operations. This requires monitoring, evaluation continuous research and development.
2. **Equal Access:** The implementation of ICT in government processes must ensure that all citizens have equal access. For this purpose, factors such as geographic location, the issue of time, and diversity must be taken into account. This requires developing shared internal facilities that will enable service delivery channels to be available across the general public.
3. **Ease of Use:** Applications that are to be implemented must be oriented towards citizens and, hence, be user friendly. This requires providing user-friendly Citizen-Care and Business-Centric services for all.
4. **Benefit Realization and Involvement of all Stakeholders:** Applications should ensure that the benefits obtained by citizens from using e-Government services will be greater than those from visiting government offices in person. Thus e-Government investments need to be justifiable in terms of how they help citizens and tax payers. This requires ensuring services are aligned to client expectations and address pertinent needs.



5. **Security and Privacy:** When implementing applications, consideration should be given on using security and privacy mechanisms to ensure the proper use and handling of personal information and transactions. This requires assuring security, legality, protection of privacy, prevention of intrusion and detection of attempts at unauthorized access.
6. **Partnership and Outsourcing:** The private sector can assist the State in providing e-Government solutions, as well as in building the capacity of government employees. This in turn requires building strategic partnership with private sector and encouraging private-sector led innovations in delivering public services.
7. **Interoperability:** Each government department will be responsible for maintaining its electronic services and data-sets, as well as for ensuring that newly implemented systems leverage existing systems and aligned with Government guidelines and standards set. To achieve the forementioned, the Government requires holistic oversight and management of systems with broad participatory design processes for new systems.



## CHAPTER 4

### 4.0 e-Government Strategy

This section lays out the proposed strategies for e-Government in Tanzania. Key considerations include the current e-Government status, key success factors and possible risks that will need to be mitigated in order to achieve the following objectives:

- Institutional framework developed by 2018
- HR capacity improved by 2018
- Government-wide electronic infrastructure developed by 2018
- Government-wide shared systems implemented by 2018
- e-Service flagship projects implemented by 2017
- e-Government awareness increased by 2016

Table 1 lists the Key Performance Indicators (KPI) for each of the six objectives. These KPI's will help Government institutions to be accountable for their e-Government investments and efforts, as they will provide the means to evaluate e-Government both quantitatively and qualitatively. The entire e-Government implementation roadmap is depicted in Figure 1. The objectives and their associated implementation strategies and targets (outputs) are summarized in Table 2 and are thereafter discussed.



**Table 1: e-Government Strategy Key Performance Indicators**

<b>Institutional framework developed by 2018</b>	<ul style="list-style-type: none"><li>❖ e-Government Executive Agency in place</li><li>❖ e-Government Policy in place</li><li>❖ ICT Legal framework incorporated</li><li>❖ ICT Governance Guidelines and Enterprise Architecture in place</li><li>❖ All Ministries have a ICT strategy or plan in place</li><li>❖ ICT Park – special economic zone in place</li></ul>
<b>HR capacity improved by 2018</b>	<ul style="list-style-type: none"><li>❖ % of public servants trained in ICT literacy and office automation tools</li><li>❖ % of public servants trained in e-Government concepts and ICT management</li><li>❖ % of ICT staff trained in selected ICT technical skills</li><li>❖ % of senior ICT staff trained in CIO knowledge and skills</li></ul>
<b>Government-wide electronic infrastructure developed by 2018</b>	<ul style="list-style-type: none"><li>❖ % of reduction of budget allocation in ICT</li><li>❖ % of Public Servants satisfied with electronic work environment</li><li>❖ % of MDAs and LGAs interconnected</li><li>❖ % of MDAs and LGAs with computing workstations</li><li>❖ % of reduction in communication/ transportation cost</li></ul>



<p><b>Government-wide shared systems implemented by 2018</b></p>	<ul style="list-style-type: none"> <li>❖ All government-wide shared systems implemented</li> <li>❖ % increase of access to government-wide shared systems by public servants</li> <li>❖ % reduction in communication time</li> <li>❖ % reduction of document access time</li> <li>❖ % of users satisfied with shared systems</li> </ul>
<p><b>e-Service flagship projects implemented by 2017</b></p>	<ul style="list-style-type: none"> <li>❖ All flagship projects implemented successfully</li> <li>❖ % of services conducted through e-services</li> <li>❖ % of users satisfied with e-services</li> <li>❖ % reduction of service delivery time</li> </ul>
<p><b>e-Government awareness increased by 2016</b></p>	<ul style="list-style-type: none"> <li>❖ % of citizens aware of availability of e-services</li> <li>❖ % Increase of visits to e-Government portals</li> <li>❖ % Increase of usage for e-services</li> </ul>

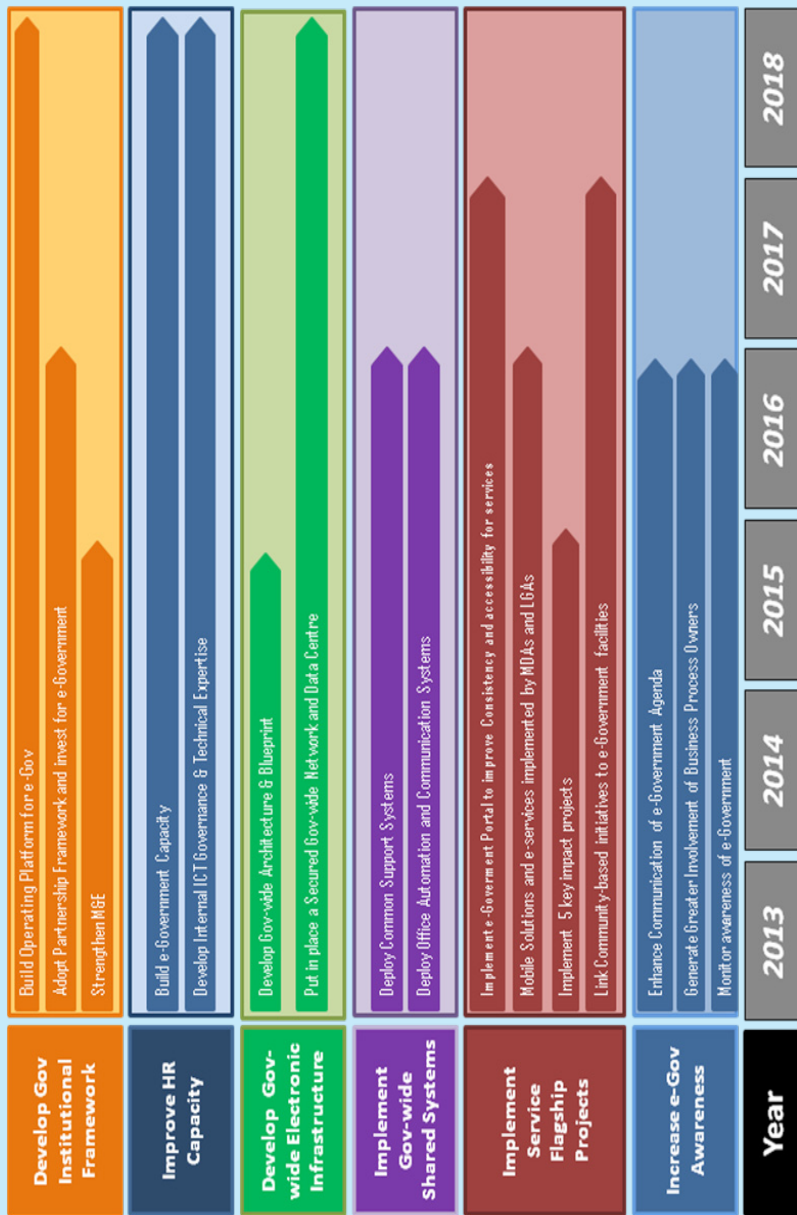


Figure 1: e-Government Implementation Road Map



Table 2: e-Government Objectives and Implementation Strategies

OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
<b>OBJECTIVE 1: E-GOVERNMENT INSTITUTIONAL FRAMEWORK DEVELOPED BY 2018</b>	<i>Build Operating Platform for e-Government</i>	<ul style="list-style-type: none"> <li>❖ Strengthening e-Government Executive Agency by December 2013</li> <li>❖ ICT units in MDAs and LGAs established or restructured by June 2016</li> <li>❖ e-Government policy and ICT Governance established by June 2015</li> <li>❖ Public Sector Enterprise Architecture developed by December 2015</li> <li>❖ Public Sector ICT Governance Framework developed by December 2015</li> </ul>
	<i>Adopt Partnership Framework and invest for e-Government</i>	<ul style="list-style-type: none"> <li>❖ Public Private Partnership arrangement developed by December 2016</li> </ul>
	<i>Strengthen M&amp;E</i>	<ul style="list-style-type: none"> <li>❖ e-Government M&amp;E framework developed January June 2015</li> <li>❖ e-Government M&amp;E framework implemented by June 2016</li> </ul>



OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
<p><b>OBJECTIVE 2: HR CAPACITY IMPROVED BY 2018</b></p>	<p><i>Build e-Government Capacity</i></p>	<ul style="list-style-type: none"> <li>❖ e-Government capacity assessed by December 2013</li> <li>❖ e-Government executive management training programmes completed by June 2018</li> <li>❖ e-Government basic training programmes completed by December 2018</li> </ul>
	<p><i>Develop internal ICT Governance and Technical Expertise</i></p>	<ul style="list-style-type: none"> <li>❖ ICT HR framework in place by June 2014</li> <li>❖ Certification programme for trainers (“training the trainers”) to enhance ICT use by June 2018</li> <li>❖ Senior ICT executives trained in CIO knowledge and skills by June 2016</li> <li>❖ ICT staff trained in selected ICT technical skills by December 2018</li> <li>❖ Participate in various international e-Government sharing programmes and best practice by December 2018</li> </ul>





OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
<b>OBJECTIVE 3: GOVERNMENT- WIDE ELECTRONIC INFRASTRUCTURE DEVELOPED BY 2018</b>	<i>Develop Government-wide ICT, Network Architecture and Data Centre</i>	<ul style="list-style-type: none"> <li>❖ Government-wide ICT and network architecture developed by December 2014</li> <li>❖ Government-wide ICT security policy and blueprint developed by December 2014</li> <li>❖ Government data centre in place by December 2015</li> </ul>
	<i>Put in place a Secured Government-wide Network and Data Centre</i>	<ul style="list-style-type: none"> <li>❖ All Ministries to be interconnected and operational by December 2016</li> <li>❖ All MDAs and key LGAs to be interconnected and operational by December 2018</li> <li>❖ All LGAs to be interconnected and operational by December 2018</li> <li>❖ Data Centers for the public service established and operational by December 2017</li> </ul>



OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
<p><b>OBJECTIVE 4: GOVERNMENT-WIDE SHARED SYSTEMS IMPLEMENTED BY 2018</b></p>	<p><i>Deploy Common Support Systems</i></p>	<ul style="list-style-type: none"> <li>❖ HCMIS functionalities expanded by 2017</li> <li>❖ Service Complaint Case Management System implemented by June 2016</li> <li>❖ Document Registry and Workflow Management Systems implemented by June 2016</li> <li>❖ Vehicle Fleet Management implemented by December 2016</li> </ul>
	<p><i>Deploy Office Automation and Communication Systems</i></p>	<ul style="list-style-type: none"> <li>❖ Government wide secured email system deployed by June 2015</li> <li>❖ Common office automation tools deployed by December 2015</li> <li>❖ Government Standing Order and Policies deployed in Workflow Management System by June 2018</li> </ul>



OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
<b>OBJECTIVE 5: E-SERVICE FLAGSHIP PROJECTS IMPLEMENTED BY 2017</b>	<i>Implement e-Government Portals to Improve Consistency and accessibility for Services</i>	<ul style="list-style-type: none"> <li>❖ Develop an e-Government Portal framework by December 2014</li> <li>❖ Deploy National e-Government Portal June 2014</li> <li>❖ Deploy Business Service Portal by December 2014</li> <li>❖ Deploy Citizen Service Portal by December 2015</li> <li>❖ Deploy Visitor Service Portal by December 2015</li> </ul>
	<i>Implement Mobile Solutions to Reach Out to Stakeholders</i>	<ul style="list-style-type: none"> <li>❖ 8 mobile solutions and e-services implemented in MDAs and LGAs by June 2015</li> </ul>
	<i>Implement 5 key impact projects</i>	<ul style="list-style-type: none"> <li>❖ Business Licensing System implemented by June 2015</li> <li>❖ Pilot e-Procurement System implemented by December 2015</li> <li>❖ Land Information System upgraded by June 2015</li> <li>❖ National Vital Records Registration System implemented by December 2015</li> <li>❖ Telemedicine System at Muhimbili Hospital implemented by December 2015</li> </ul>



OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
	<p><i>Link Community-based initiatives to e-government facilities.</i></p>	<ul style="list-style-type: none"> <li>❖ One-stop Service Centers for key e-services established and facilitated in all regions by June 2017</li> <li>❖ Public Information Kiosks in Community Center's linked to e-services in LGAs by June 2017</li> </ul>
<p><b>OBJECTIVE 6: E-GOVERNMENT AWARENESS INCREASED BY 2017</b></p>	<p><i>Enhance Communication of the e-Government Agenda</i></p>	<ul style="list-style-type: none"> <li>❖ e-Government IEC plan developed and implemented by June 2015</li> <li>❖ Quarterly e-Government dialogue fora between State and Non-State Actors facilitated by December 2014</li> <li>❖ Yearly e-Government Seminar implemented by December 2014</li> </ul>



OBJECTIVES	IMPLEMENTATION STRATEGIES	TARGETS
	<i>Generate Greater Involvement of Business Process Owners</i>	<ul style="list-style-type: none"> <li>❖ e-Government Leadership Forums facilitated by December 2015</li> <li>❖ e-Government National Award implemented by December 2015</li> </ul>
	<i>Monitor awareness of e-Government</i>	<ul style="list-style-type: none"> <li>❖ Impact assessment of initial campaign conducted by June 2014</li> <li>❖ Revised IEC plan developed by December 2017</li> </ul>



#### 4.1 Objective 1: e-Government Institutional Framework Developed by 2018

The implementation and adoption of e-Government in Tanzania is at nascent stage. Our reviews on e-Government implementation in Tanzania indicate that the low pace of e-Government development is attributed by the following factors:

- ❖ Lack of a coherent policy, legal and institutional framework for e-Government
- ❖ Lack of M&E framework to understand value of ICT and benefit realisation
- ❖ Silo-based e-Government initiatives and uncoordinated efforts
- ❖ Sustainability of ICT adoption in the public service
- ❖ Lack of confidence among key stakeholders and other users to adopt e-Government applications and services due to unavailability of confidentiality and data protection; and
- ❖ Lack of a framework to leverage private sector resources and community participation.

In addressing these challenges, the Government will facilitate a conducive and secured e-Government environment with a clear institutional, legal, infrastructure and partnership framework. Therefore it is envisaged that the establishment framework will increase the level of trust, confidence and willingness to invest and adopt e-Government applications and electronic services. Key implementation strategies under this broad intervention are discussed in the following section.



### *Implementation Strategy 1.1: Build Operating Platform for e-Government*

Building an operating platform for e-Government will assist the Government to develop sustainable e-Government initiatives in more integrated manner. The main intention of this intervention is to accelerate development of e-Government through the establishment of a driving agency and coordinating bodies to instil effective ICT governance and put in force a set of ICT technology standards in the Government. Under this strategy, emphasis will be to ensure that clear institutional, operational, legal and regulatory structures are put in place after the establishment of the e-Government Agency (eGA). The strategy will underscore incorporating a legal framework that addresses the safe guard of electronic data and transactions; and formulation of a government-wide Enterprise Architecture for technology standards compliance. The expected outputs of this intervention are as follows:

- ❖ Strengthening e-Government Executive Agency by December 2013
- ❖ ICT units in MDAs and LGAs restructured by June 2016
- ❖ e-Government policy and ICT Governance established by June 2015
- ❖ Public Sector Enterprise Architecture developed by December 2015
- ❖ Public Sector ICT Governance Framework developed by December 2015



### ***Implementation Strategy 1.2: Adopt Partnerships Framework and invest for e-Government***

Establishing better and more constructive partnership between Government institutions and Non-State Actors on e-Government initiatives will provide an improved environment for collaboration in developing e-Government initiatives. Under this strategy, the Government will develop a framework for managing partnerships and invest in at least one major National ICT park to boost the capacity of the ICT industry and players in the country. The investment by the Government in a special economic zone of ICT park will significantly improve the supplies of quality ICT services and goods, reduce the long-term costs of ICT adoption in the country, and more importantly increase the employment opportunities of high value-adding ICT jobs for the citizens. The multiplier effect of the ICT park investment in the long-term will help Tanzania generate a new source of economic growth.

In addition, the Government will establish guidelines on utilizing existing private sector opportunities for electronic service delivery channels, such as Public Kiosks, tele-centres, mobile phones and cybercafés. The expected outputs under this intervention are presented as follows:

- ❖ Public Private Partnership arrangement developed by December 2016

### ***Implementation Strategy 1.3: Strengthen Monitoring and Evaluation (M&E)***

E-Government service delivery initiatives need to be strengthened through putting in place robust Monitoring





and Evaluation Systems (M&E) that will track and measure the impact of various strategies adopted and implemented. In this regard, milestones and performance indicators must be established to track progress against agreed targets for each objective. A tangible output of this strategy will be:

- ❖ e-Government M&E framework developed June 2015
- ❖ e-Government M&E framework implemented by June 2016

## 4.2 Objective 2: HR Capacity Improved by 2018

One of the key problems hindering the implementation of e-Government in Tanzania is lack of capacity in the public service to manage and use e-Government applications and services. These capacity gaps can be discerned in terms of e-Government tools, human resources and a blend of ICT skills. These issues lead to resistance to change; underutilization of available resources; existing systems not being used optimally; new opportunities not being exploited; and persistence of hazardous vulnerabilities that cannot be averted.

To achieve this objective, the following implementation strategies shall be adopted:

### ***Implementation Strategy 2.1: Build e-Government Capacity***

The Government will continue to enhance its capacity through assessing current and future e-government needs, identifying capacity gaps to develop training programmes, and taping knowledge through experience-sharing in collaboration with various institutions inside and outside the Public Service. The



expected outputs of this strategy are presented as follows:

- ❖ e-Government capacity assessed by December 2013
- ❖ e-Government Executive management training programmes completed by June 2018
- ❖ e-Government basic training programmes completed by December 2018

### ***Implementation Strategy 2.2: Develop Internal ICT Governance and Technical Expertise***

To sustain the management and implementation of ICT, a clear framework for ICT human resource development need to be formulated and deployed. Both the management and technical expertise of the ICT staff would need to be scaled up to enhance the capacity for formulating and implementing useful and innovative ICT solutions for the Government. The expected outputs of this strategy are presented as follows:

- ❖ ICT HR framework in place by June 2014
- ❖ Certification programme for trainers (“training the trainers”) to enhance ICT use by June 2018
- ❖ Senior ICT staff trained in CIO knowledge and skills by June 2016
- ❖ ICT staff trained in selected ICT technical skills by December 2018
- ❖ Participate in various international e-Government sharing programmes and best practice by December 2018



### 4.3 Objective 3: Government-wide Electronic Infrastructure Developed by 2018

Most of the existing e-Government networks and information infrastructure are based on ad hoc demand of service improvement by individual department that fall short of long-term needs of the Government and its stakeholders. The lack of a secured and shared infrastructure to integrate and run common e-Government applications and services is likely to place additional financial burden and greater security risks to the Government in the long run. Increasingly, citizens and businesses would like the Government to provide services with better integrated, cost-effective and secured systems. Existing infrastructure has limitations in terms of technology and capacity to support efficient and effective government service delivery system and a seamless service delivery platform meet the needs of a future service demands.

To achieve this objective, the following implementation strategies shall be adopted:

#### ***Implementation Strategy 3.1: Develop Government-wide ICT, Network Architecture and Data Centre Blueprint***

The challenge ahead is to establish a secured and shared e-Government network and data infrastructure for Government service delivery that will address the concerns of both the service providers within the Government and the its customers. However, without a robust architecture and a blueprint for development, the Government efforts could be hampered by connectivity and capacity challenges that could potentially derail the e-Government implementation.



The expected output under this intervention is as follows:

- ❖ Government-wide ICT and network architecture developed by December 2014
- ❖ Government-wide ICT security policy and blueprint developed by December 2014
- ❖ Government data centre developed by December 2015

***Implementation Strategy 3.2: Put In Place a Secured Government-wide Network and Data Centre***

To establish a secured and shared e-Government network and data infrastructure to support the e-services to be rolled out in the next few years, there is a need to “growth” the network and data infrastructure in tandem to avoid over or under capacity. There is also a need to review and adjust the development of the infrastructure due to the complexity involved and the less certain nature of ICT application implementation. The expected output under this intervention is as follows:

- ❖ All Ministries to be interconnected and operational by December 2016
- ❖ All MDAs and key LGAs to be interconnected and operational by December 2017
- ❖ All LGAs to be interconnected and operational by December 2018
- ❖ Data Centre for the public service established and operational by June 2017



#### 4.4 Objective 4: Government-wide Shared Systems Implemented by 2018

Based on the reviews, a number of ICT systems such as Document Registry Management Systems and Intranets are beginning to proliferate in the MDAs. As these systems are similar in functions and used widely across all MDAs, the Government could consolidate and develop them as shared systems to incorporate best practices and improve economy of scale in operation. Isolated procurement and deployment of these systems should be discouraged and avoided.

To achieve this objective, the following implementation strategies shall be adopted:

##### *Implementation Strategy 4.1: Deploy Common Support Systems*

Common support systems enable the MDAs to manage its human resources, documents/files, vehicles and customer feedback which are needed to ensure effective management key resources and handling of customer issues to support on-going operation. The main benefits of these systems include providing greater visibility, lowering of cost of managing resources and ensuring responsiveness to resolve operational issues.

The expected output under this intervention is as follows:

- ❖ Human Capital Management Information System (HCMIS) functionalities expanded by June 2017
- ❖ Service Complaint Case Management System implemented by June 2016



- ❖ Document Registry and Workflow Management Systems implemented by June 2016
- ❖ Vehicle Fleet Management implemented by December 2016

### ***Implementation Strategy 4.2: Deploy Office Automation and Government Intranet***

Modern offices are supported by a suite of user-friendly office automation software (e.g. word processor, spreadsheet, presentation tools) and communication systems. Government employees are knowledge workers that need effective tools to create contents and communicate with others to coordinate and collaborate across the Government. The use of such software and tools will increase the productivity of the Government and improve the communication within and across all the MDAs and LGAs. Intranet is now a standard information and knowledge sharing platform in many organisations. The use of Intranet in the Government will not only improve communication, but also allow knowledge to be shared more efficiently to tackle issues and collaborate on development of innovative service solutions.

The expected output under this intervention is as follows:

- ❖ Government wide secured email system deployed by June 2015
- ❖ Common office automation tools deployed by December 2015
- ❖ Government Standing Order and Policies deployed in Workflow system by June 2018



#### 4.5 Objective 5: e-Service Flagship Projects Implemented by 2017

The potentials of available electronic Services in the Government have not sufficiently benefited the general public due to limitations in terms of technology usage, adaptation and accessibility. Furthermore, current operational electronic services are largely internal, bureaucratic and less geared towards being interactive with service users.

As a result, Tanzania has suffered by missing opportunities of improving public service delivery, with consequences on wastage of resources and increased cost of doing business. The challenge ahead as a nation is to provide expanded access to innovative e-services through government process re-engineering, taking into account the prevailing ICT tools, and using them to link community-based initiatives to e-Government facilities with a corresponding increase of opportunities for more responsive service delivery. It is also important to establish benchmarks and feedback mechanisms with which the implementation of e-Government initiatives will be monitored and evaluated.

To achieve this, the following implementation strategies need to be realised:

##### ***Implementation Strategy 5.1: Implement e-Government Portals to Improve Consistency and Accessibility for Services***

Government's service delivery systems involve front-office and back-office operations. If e-services are deployed in silos and accessed only through individual MDA's website without



coordination across the Government, the customers are likely to be confused and worst, frustrated. To ensure a consistent front-office interface, and to enable efficient identification of available e-services across the MDAs, several stakeholder oriented portals shall be developed. An e-Government Portal framework with common authentication will be first developed to ensure all stakeholder oriented portals can be designed and used in a secured, consistent and user-friendly manner.

The expected outputs under this strategy are as follows:

- ❖ Develop an e-Government Portal framework by December 2014
- ❖ Deploy Public Service Portal by June 2014
- ❖ Deploy Business Service Portal by December 2014
- ❖ Deploy Citizen Service Portal by December 2015
- ❖ Deploy Visitor Service Portal by December 2015

### ***Implementation Strategy 5.2: Implement Mobile Solutions to Reach Out to Stakeholders***

With the availability of mobile networks in the country and high adoption rate of mobile phone in Tanzania over the last few years, it is now possible to deploy a series of quick wins to impact the citizens by leveraging on the mobile technology. These services offer a reasonable and highly accessible alternative for Government and communities especially in hard to reach areas. Service reminders, information delivery and mobile payment can now be implemented to take advantage of the low-cost but innovative mobile service delivery platform. The





expected outputs under this intervention are as follows:

- ❖ 8 mobile solutions and e-services implemented in MDAs and LGAs by June 2015

### ***Implementation Strategy 5.3: Implement 5 key Impact Projects***

National information assets on people, business and land are crucial “soft” capitals of the Government which enable the Government not only to provide essential social and business services, but also support management decision making based on up-to-date information of these assets.

Implementation of systems supporting the collection and processing of such information will improve the efficiency of providing services to citizens and businesses, lower the cost of doing business, and enhance national security. The expected outputs under this intervention are as follows:

- ❖ Business Licensing System implemented by June 2015
- ❖ Land Information System upgraded by December 2015
- ❖ e-Procurement System implemented by December 2015
- ❖ National Vital Records Registration System implemented by December 2015
- ❖ Telemedicine Systems for Muhimbili Hospital implemented by December 2015



### ***Strategy 5.4: Link Community-based Initiatives to e-Government Facilities***

To reduce the digital divide between rural and urban areas, the Government has to deliberately increase affordable access to public information services aimed at the rural area. This may be facilitated by establishing new public information kiosks at existing community centers, by linking them to new electronic services. By doing so, communities that are linked to the e-Services will also be able to use the facilities to interact directly with one another for mutual benefit.

The tangible outputs of this implementation strategy will be:

- ❖ One-stop Service Centers for key e-services established and facilitated in all regions by June 2017
- ❖ Public Information Kiosks in Community Center's linked to e-services in LGAs by June 2017

#### **4.6 Objective 6: e-Government Awareness Increased by 2015**

The current e-Government agenda is not fully appreciated by the general public and this is due to the low awareness of potential benefits and the wrong perception of e-Government as being technology-based rather than service-oriented. Other factors also include poor communications that, to a large extent, were not well conceived and did not address the information needs of the stakeholders.

With improved general communications and engaging of the business process owners as well as other stakeholders of e-Government implementation, it is envisaged that awareness



will be heightened and the e-Government agenda will be embraced by the society.

### ***Implementation Strategy 6.1: Enhance Communication of the e-Government Agenda***

The successful and sustainable implementation of e-Government depends on the level of e-Government awareness among the public and other stakeholders, including assuring transparency and ownership. This is achieved by enhancing communication of the agenda in both English and Kiswahili through awareness campaigns, outreach programmes, dialogues between State and Non-State Actors, and by preparing and disseminating publications as well as TV and radio programmes. The expected outputs under this strategy are as follows:

- ❖ e-Government IEC plan developed and implemented by June 2014
- ❖ Quarterly e-Government dialogue fora between State and Non-State Actors facilitated by December 2014
- ❖ Yearly e-Government Seminar implemented by December 2014

### ***Implementation Strategy 6.2: Generate Greater Involvement of Business Process Owners***

The sustainability of e-Government in the Government institutions requires business process owners rather than ICT professionals to be in the driving seat. The greater involvement of the owners will add value in identifying, developing and launching appropriate e-services that are responsive to the needs of target beneficiaries. Achieving this will require, sharing of ideas and innovation in e-Government and formal recognition



of effective e-Government solution deployment. The expected outputs under this strategy are as follows:

- ❖ e-Government Leadership Forums facilitated by December 2015
- ❖ e-Government National Award implemented by December 2015

### ***Implementation Strategy 6.3: Monitor Awareness of e-Government***

Monitoring awareness on e-government implementation is critical for evaluating the success or shortcomings of that process. This will require establishing benchmarks, and then defining indicators before performing awareness campaigns that may be used for monitoring purposes.

Evaluation of the success of e-Government awareness promotion is to be conducted to measure whether the outreach programmes are effective and how best to refresh them for the subsequent period. The monitoring exercise will track indicators of outputs, outcomes, and impact based on identified priorities. The expected outputs under this strategy are as follows:

- ❖ Impact assessment on the implementation of Information, Education and Communication (IEC) plan undertaken by June 2014
- ❖ Revised IEC plan developed by December 2017



## CHAPTER 5

### 5.0 Critical Success Factors and Risks

E-Government success requires high levels of coordination, a constant demand for tangible results, proactive leadership and strong management. There are always a number of Critical Success Factors (CSFs) and risks associated with e-Government implementation. This section highlights some of the key ones.

#### 5.1 Critical Success Factors

This strategy has identified some factors that are critical to the successful implementation of e-Government initiatives:

**Table 3: Critical Success Factors**

CRITICAL SUCCESS FACTORS	REQUIREMENTS
Political will, support and commitment	❖ Continuous engagement of political leaders in support to e-Government in order to maintain the momentum
Availability of ICT HR capacity	<ul style="list-style-type: none"> <li>❖ Continuous capacity development</li> <li>❖ Continuous public involvement</li> <li>❖ Partnership with learning and research institutions</li> </ul>
Institutional and Legal framework	❖ Clearly defined institutional framework and supportive legislation and enforcement mechanisms



CRITICAL SUCCESS FACTORS	REQUIREMENTS
Financial Resources	<ul style="list-style-type: none"><li>❖ Recognition of e-Government as a priority area in the Government agenda</li></ul>
Commitment by all actors	<ul style="list-style-type: none"><li>❖ Continuous coordination and buy-in by all actors or stakeholders</li><li>❖ Active coordination among all stakeholders to develop and enforce coherent e-Government service delivery</li></ul>
Sustainable Infrastructure	<ul style="list-style-type: none"><li>❖ Network and information security</li><li>❖ Infrastructure to sustain e-Government services</li></ul>
Availability of e-Government services and contents	<ul style="list-style-type: none"><li>❖ Enhanced capacity for service and content development</li><li>❖ Public-Private partnership</li><li>❖ Engagement of research and development institutions</li></ul>

## 5.2 Risks

This strategy identifies key risks as indicated in table 4, which may obstruct the smooth implementation of the e-Government initiatives as identified above. Possible mitigation for each of these risks is also included. The full commitment of all stakeholders will be required to overcome each of these risks.



Table 4: Risks

RISK	IMPACT	MITIGATION
Donor Dependence	High	<ul style="list-style-type: none"> <li>❖ Government funding</li> <li>❖ Public Private Partnerships</li> </ul>
Resource availability	Medium	<ul style="list-style-type: none"> <li>❖ Government funding</li> <li>❖ Public Private Partnerships</li> <li>❖ Management of development partner funds</li> </ul>
Political will	High	<ul style="list-style-type: none"> <li>❖ Sustain political commitment</li> <li>❖ Public Private Partnerships</li> <li>❖ Deliver effective e-Services to the voters</li> </ul>
Resistance to change	High	<ul style="list-style-type: none"> <li>❖ Raise awareness</li> <li>❖ Manage expectations</li> <li>❖ Involve key stakeholders</li> <li>❖ Clarity of scope, roles and responsibility</li> <li>❖ Demystify/expose technology and encounter technophobia</li> </ul>
Technological failure	Medium	<ul style="list-style-type: none"> <li>❖ Business Continuity Plan</li> <li>❖ Disaster recovery plan</li> </ul>
Technological Obsolescence	Low	<ul style="list-style-type: none"> <li>❖ Planning for technology refresh</li> <li>❖ Build internal capacity</li> </ul>
Privacy and security	High	<ul style="list-style-type: none"> <li>❖ Implement Security measures</li> <li>❖ Effective policies, rules and regulations</li> </ul>
Dependence on technology supplier	Medium	<ul style="list-style-type: none"> <li>❖ Use standard-based technology</li> <li>❖ Contract management</li> <li>❖ Build Internal Capacity</li> </ul>



## APPENDIXES

### 6.0 GLOSSARY

**Blueprint** – is a type of paper-based reproduction usually of a technical drawing, documenting architecture or an engineering design. More generally, the term “blueprint” has come to be used to refer to any detailed plan.

**Chief Information Officer (CIO)** is a job title for the board level head of information technology within an organization. The CIO typically reports to the chief operations officer or the chief executive officer.

**Critical Success Factor** – an external factor outside the control or responsibility of any e-Government stakeholder but which nonetheless directly affects the success of that stakeholder’s e-Government efforts.

**Data Centre** - A data center or datacenter (or datacentre), also called a server farm, is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices.

**Digital Divide** – The technological gap between countries that have fully exploited ICT and those that have not. The digital divide is often associated with the resulting gap in terms of economic development.





**e-Commerce / Electronic Commerce (e-biashara)** – Business activities involving consumers, manufacturers, suppliers, service providers and intermediaries using computer networks such as the Internet.

**e-Democracy / Electronic Democracy (e-Siasa)** – using of technology in enhancing democratic processes within a democratic republic or representative democracy. It is framed in terms of making processes more accessible; making citizen participation in public policy decision-making more expansive and direct so as to enable broader influence in policy outcomes as more individuals involved could yield smarter policies; increasing transparency and accountability; and keeping the government closer to the consent of the governed, thereby increasing its political legitimacy.

**e-Kiosk (electronic kiosk)**– I(or **computer kiosk** or **interactive kiosk**) houses a computer terminal that often employs custom kiosk software designed to function flawlessly while preventing users from accessing system.

**e-Service / Electronic Service** – Includes the use of electronic means for all interaction between citizens and government, including availing services from the government, understanding status of work in progress and accessing results of the process.

**Framework** - is a basic conceptual structure used to solve or address complex issues.

**Fiber Optics** The technology that uses cables consisting of very thin filaments of glass fibers that can conduct the light generated by lasers for high-speed telecommunications.



**Global Information Infrastructure (GII)** – The components making up a wide area network arising from multiple heterogeneous networks, which facilitate multidimensional communication among different nations, business and organisations.

**Independent Telecommunication Network (ITN)** – Is a Government Secured Network that enables MDA's to securely share information at higher speeds and more cost effectively. The shared network improves the delivery of information and services to the public.

**Information and Communication Technologies (ICT)** – Is a generic term used to express the convergence of information technology, broadcasting and communications. One prominent example is the Internet.

**Information Society (IS)** – A country or region where information technology has been fully exploited and is part of everyday life as an enabler of information sharing, communication and diffusion.

**Information Technology (IT)** – Embraces the use of computers, telecommunications and office systems technologies for the collection, processing, storing, packaging and dissemination of information.

**Internet Exchange Point (IXP)** – It is a “peering point” for Interconnecting ISPs and/or other IXPs for the purpose of localising national traffic routing as opposed to using international routes to accomplish Inter-ISP traffic flow.



**Internet Service Provider (ISP)** – Also known as Internet Access Providers – Is a company that provides infrastructure for access to the Internet or for interconnecting other ISPs and content-based or application-based services on the Internet.

**Knowledge Based Economy (KBE)** – A country or region where ICT is extensively used to enhance knowledge so that higher human capital brings further improvement to the economy.

**Local Area Network (LAN)** – A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves.

**Portal** – A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves.

**Public Private Partnership (PPP)** – describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies.

**Network Architecture** – A master plan designed to promote an open, simple, flexible, and efficient telecommunications environment through the use of standard protocols, standard communications hardware and software interfaces, and the design of a standard multilevel telecommunications interface between end users and computer systems.



**Non-State Actors** – in international relations, are actors on the international level which are not states. Examples are Non-Government Organizations (NGOs), Multinational Corporations (MNCs), The International Media and Religious Groups.

**Risk** – an identifiable, potential issue that may negatively impact the result of an e-Government initiative or project, and for which the stakeholder can exercise some measure of control.

**Voice over Internet Protocol (VoIP)** – Also known as Voice over Internet, IP Telephony or Internet Telephony – refers to telephone services provided over the Internet as the transmission medium.

**Web Portal** – Is a term, often used interchangeably with gateway, for a World Wide Web site whose purpose is to be a major starting point for various online services for users when they connect to the Web.

**Wide Area Network (WAN)** – A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local-area networks (LANs). Computers connected to a wide-area network are often connected through public networks, such as the telephone system. They can also be connected through leased lines or satellites.

**Workflow** – is a depiction of a sequence of operations, declared as work of a person, work of a simple or complex mechanism, work of a group of persons, work of an organization of staff, or machines.