UNITED REPUBLIC OF TANZANIA
President’s Office, Public Service Management
e-Government Agency

Tanzania e-Government Conference

e-Government Legal and Regulatory Framework – User’s Perspective

August, 2015
Arusha, Tanzania

www.ega.go.tz
• e-Government Institutional Arrangement
• Why e-Government Legal and Regulatory Framework
• e-Government Related Policies, Laws and Regulation
  • e-Government Policy
  • e-Government Legal and Regulatory Framework
  • e-Government Related Guidelines and Standards
    ✓ Objectives
    ✓ Levels of Guidelines and Standards
• Government ICT Projects Guidelines
• Conclusion
# MAJOR BUILDING BLOCKS FOR e-GOVERNMENT IMPLEMENTATION

## 1. POLICY, LAWS & REGULATIONS
- National ICT Policy
  - e-Government Policy
  - e-Government Regulations

## 2. E-GOVERNANCE
- Governance & Management Structure
- e-Government oversight & Coordination
- Planning & Investment Management
- e-Government Leadership
- Cyber Security Management
- People Skills Sets
- e-Government Standards & Guidelines

## 3. APPLICATION SYSTEMS
### MISSION CRITICAL AND STRATEGIC
- Population Registry (NID)
- Land Management System
- Collaboration System (e-office, GMS)
- Human Capital Management System
- Financial Management System

### SECTORIAL
- Communication
- Minerals
- Transport
- Land
- Forestry
- Tourism
- Livestock
- Energy
- Fisheries
- Health
- Construction
- Financial
- Legal
- Education
- Water
- Agriculture
- Industry
- Trade

## 4. INFRASTRUCTURE
### MISSION CRITICAL
- Mobile Platform
- National Payment Gateway
- Public Key Infrastructure
- Government Network
- National Data Center & Government data center
- National ICT Infrastructure Backbone

### INSTITUTIONAL
- Local Area Network
- Server Rooms

## 5. E-SERVICES
- e-Procurement
- e-Banking
- e-Tourism
- e-Agriculture
- GMS etc
- e-Education
- e-Services

## RESULTS
- Improved Public Services (Accessible, Affordable, Reliable, Convenient, Quality)
- Improved Business Environment (Tax, Banking, Licensing, Land Management etc)
- Improved Government operations (Transparency, Efficiency & Accountability)
- Optimal resources utilization (Human, Financial & ICT Infrastructure)
- Improved Government Revenue Collection (Visibility, Control & Participation)
The e-Government Agency (eGA) is established under the Executive Agency Act, Cap 245 as Semi-autonomous institution. Mandate of the e-Government Agency include coordination, oversight and promotion of e-Government initiatives and enforcement of e-Government Standards in the Public Service.

Major Roles and Functions include:

- To ensure coordination, management and compliance of e-Government implementation and initiatives;
- To ensure within the Government users have access to ICT shared infrastructure and resources;
- To promote and provide e-Government advisory and technical support for implementation of e-Government;
- To coordinate, manage, develop, disseminate, monitor and evaluate e-Government standards and guidelines;
- To ensure that public has access to e-services
Why e-Government Legal and Regulatory Framework

• E-Government service delivery involves:
  – Use of Electronic Records
  – Electronic Transactions
  – Electronic Contracts
  – Handling of citizen data & privacy issues
  – Issue of Certificates electronically...

• Other e-Government specific aspects include:
  – Legal backing to e-Government initiatives
  – Formalisation of Standards and Interoperability norms
  – Data Protection, Privacy and Intellectual Property Rights (IPR) issues
  – Mechanism for socially inclusive service delivery

Most of these issues are common also to the wider e-Commerce landscape of the country, and need to be addressed to build trust in electronic transactions.
Policies, Laws and Regulations related to ICT in Tanzania are now given a top most priority by the Government, some of the actions taken include; Two cyber related Laws has been enacted this year covering:

- Cybercrime Act, 2015
- e-Transactions Act, 2015

The process of enacting Personal Data Protection Law is underway.

Formulation of e-Government policy under President Office Public Service Management and Review of 2003 National ICT Policy under Ministry of Communication Science and Technology are other initiatives related to policies.
Despite various efforts undertaken by the Government on ICT, still there are shortcomings brought by the rapid deployment of the ICT initiatives in the Public Service including duplication of efforts and deployment of some ICT systems which are incompatible and provide no interoperability.

Therefore there is need to develop a comprehensive National/Tanzania e-Government policy in order to address the aforementioned policy gaps and also to complement other existing policies including the National ICT Policy 2003.
e-Government Policy

Challenges in:

- ICT Legal Framework
- ICT Governance
- Electronic Service Delivery
- Information Security
- ICT HR Development
- Stakeholders Involvement
- R & D in e-Government

Observed Policy Gap

Absence of a unified approach in implementing e-Government initiatives across the Public Service;

Inadequate policy guidance on ICT human capital management in the Public Service;

Absence of policy directives on how to secure e-Government systems;

Absence of clearly defined roles and responsibilities of Public Institutions and other stakeholders in implementing e-Government; and

Absence of policy guidance on how RDI activities of e-Government can be managed.

Specific Objectives

To strengthen management and control of e-Government initiatives.

To modernize the operations of public services through ICT deployment that lead to efficient and effective public service delivery.

To strengthen stakeholders collaboration and partnership approaches towards implementing e-Government initiatives.

To promote and strengthen sustained research and innovation culture and practices that are streamlined in development and deployment of e-Government systems and services.

To ensure security of government information in the course of service delivery in the context of e-Government.

To strengthen ICT Human Resources capacity in public service.
e-Government Legal and Regulatory Framework

- The main challenge in the legal environment in the implementation of this policy is on developing and maintaining a proactive legal framework that can keep pace with the rapidly changing ICT technology.

- Adoption and implementation of e-Government brings changes on the traditional Government operating environment that makes it hard for the Government to operate using traditional legal framework and therefore a clear legal framework needs to be established in order to cope with these changes.

- The areas that need attention include data access rights, privacy protection, computer frauds & crimes, security and privacy of e-transactions, establishment of rules governing e-transactions, and delivery of e-Government services to citizenry.

- The Government shall enact legislation(s) and amendment for smooth implementation of the policy. The Acts shall incorporate procedures, penal sanctions and administrative measures as well as mandate to responsible institution(s) in coordinating, oversight and promoting e-Government initiatives and enforcement of e-government standards.
By September, 2015 the Government will complete the development of the e-Government related Standards and Guidelines which will cover:

- **Interconnection** – standards related to networks and system development, which layer enables communications between systems.
- **Data integration** – standards for the description of data that enables exchange between disparate systems.
- **Content management and metadata** – standards for retrieving and managing government information.
- **Information access and presentation** – presentation of data to the user in the various means of access to e-government services.
- **Business services** – standards to support data exchange in particular business areas such as e-learning, e-health, etc.
- **Web-based services** – standards to connect and integrate web-based applications over the Internet.
- **Security** – standards that ensure safe access and exchange of information in public services. The security should cuts across all technical interoperability layers.
Objectives of e-Government Standards and Guidelines

The Government Enterprise Architecture will provide the foundation to enable the Government of Tanzania to effectively deliver services across all service delivery channels to citizens, business and other government units.

- Harmonise information sharing within the government
- Standardise requirements for hardware and software acquisitions
- Improve management practices of ICT within government
- Manage the development of e-Government related projects
- Management of costs and optimise on investments within the government
- Build capacity on e-government related ICT management, operations amongst government ICT staff
The 6 Design Principles for developing e-Government related Standards and Guidelines

1. The government focuses on citizens
2. The government is a single, unified enterprise
3. The Government architecture is mission-driven
4. Security, privacy and protecting information are core government needs
5. Information is a national asset
6. The architecture simplifies government operations

TOGAF/FEA Sub Components

- #1 Architecture Vision
- #2 Frameworks
- #3 Services
- #4 Application Architecture
- #5 Information Architecture
- #6 Integration Architecture
- #7 Security Architecture
- #8 Infrastructure Architecture
- #9 Process and Governance
Levels of e-Government related standards and guidelines

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Level 1</td>
<td>High Level guideline for E-Government related Standards and guidelines</td>
<td>PoPSM</td>
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<tr>
<td>Level 2</td>
<td>9 separate documents detailing the standards and guidelines as per 9 segments of government enterprise architecture</td>
<td>eGA</td>
</tr>
<tr>
<td>Level 3</td>
<td>8 separate documents template for ICT management standards and guidelines</td>
<td>MDAs</td>
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<tr>
<td></td>
<td>Implementation plan, Regulatory requirements, Risks and Mitigation and Governance Structure</td>
<td>PoPSM and EGA</td>
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<tr>
<td>Operational Manual</td>
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**LEVEL 1**

• L1 will be high level guideline to be issued by PO-PSM Permanent Secretary (Establishment) to Public Institutions regarding e-Government Standards and Guidelines. This will be regarded as “Mwongozo wa Matumizi Bora, Sahihi na Salama ya Vifaa na Mifumo ya Teknolojia ya Habari na Mawasiliano (TEHAMA) Serikalini Version 2”.

• This will be comprehensive enough to cover the Entire Government Enterprise Architecture (9 Level 2 segments) and all other e-government related guidelines.
High Level Guidelines for E-Government related Standards and guidelines

Jamhuri ya Muungano wa Tanzania

Ofisi ya Rais, Menejimenti ya Utumishi wa Umma

Version 2.0

MWONGOZO WA MATUMIZI BORA, SAHIHI, NA SALAMA YA VIFAA NA MIFUMO YA TEKNOLOJIA YA HABARI NA MAWASILIANO (TEHAMA) SERIKALINI

Umetolewa na:
Ofisi ya Rais Menejimenti ya Utumishi wa Umma Dar es Salaam

Julai 2012
Government related standards and guidelines

Level 2

9 separate documents detailing the standards and guidelines as per 9 segments of government enterprise architecture

1) Architecture Vision
2) Framework, Standards and best practices
3) Government Services
4) Application Architecture
5) Information Architecture
6) Integration Architecture
7) Security Architecture
8) Infrastructure Architecture
9) Process and Governance
<table>
<thead>
<tr>
<th>E-Government related Standards and Guidelines</th>
<th>Level 2</th>
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<tbody>
<tr>
<td><strong>Architecture Vision</strong></td>
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</table>
| • To understand the concerns and objectives of public institutions, define key business requirements to be addressed by the e-government related standards and guidelines.  
  • To define the architecture reference models to provide standard views on how government, business, data, applications and technology are organized, and define how it supports the business processes and address public institutions concerns. The reference models will act as the reference point for public institutions to develop their architecture vision. |         |
| **e-Government Interoperability Framework**           |         |
| • eGIF provides the know how to achieve interoperability of data and information within and outside the government. It enables any public institution to provide and receive information and integrate its processes with other public institutions using a predetermined framework. Increasingly, the use of open standards to enable such interoperability is emerging to be the key in eGIF frameworks. |         |
| **Business Architecture**                             |         |
| • To define the target business architecture that defines how public institutions need to operate to achieve their business goals and respond to the strategic objectives set out in the Architecture Vision Standards and Technical Guidelines.  
  • To describe the product and/or the service strategy, the organisation, functional, process, information, and geographic aspect of the business environment. |         |
| **Application Architecture**                          |         |
| • Application Architecture aims to reduce complexity and promote reusability, flexibility and extensibility, simplicity and ease of use, adherence to open standards, service oriented technology and vendor independence such that maximum value is extracted from IT investments. This will minimise the time, cost and complexity of developing, deploying, maintaining and enhancing the application eco-system going forward. |         |
Information Architecture

• Information Architecture enables easier, more efficient exchanging and processing of data. It also removes ambiguities and inconsistencies in the use of data across public institutions. These standards shall apply to all systems within Government of Tanzania and are for use in all public institutions interfaces. Compliance with these standards shall follow the e-GiF compliance rules.

Integration Architecture

• Integration Architecture allows for the seamless exchange of information, reuse of data models and inter-changeability of data across systems. It helps to eliminate patchwork of ICT solutions in different public institutions such as those systems that are unable to “talk” or exchange data. It brings in the ability to effectively interconnect, collaborate, access and facilitate data integration in order to communicate between different public institutions (G2G, G2C, and G2B etc.).

Infrastructure Architecture

• The purpose of infrastructure architecture is to develop a structured, standardized, and consolidated set of infrastructure services that optimally support business processes and applications. This prevents overlapping and diversity of services, and thus reduces the complexity of managed services and life-cycle management. Moreover, with the standardization of infrastructure it allows institutions to produces greater flexibility bottom-up, makes it easier to carry out expansions, changes, and replacements in technology.
The Security Architecture Framework aims to protect physical and electronic assets, resources, and data/information from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide:

- Integrity for guarding against improper information modification or destruction, and includes ensuring information non-repudiation and authenticity;
- Confidentiality for preserving authorized restrictions from access and disclosure, including means for protecting personal privacy and proprietary information;
- Availability for ensuring timely and reliable access to and use of information. Availability is securely accomplished through identification, authentication, authorization and access control;
- Accountability, which includes requirements that actions of individuals or entities can be traced to the individual or entity, non-repudiation, and security review controls and procedures; and
- Assurance, including security administration and adherence to security and infrastructure related standards.

The definition of e-Government related standards and guidelines is not a onetime effort but is a living and breathing practice that needs to be sustained for a successful e-government. Without appropriate process and governance, public institutions could be following their own strategies, policies, guidelines and standards without any alignment to the overall e-government strategy of Government of Tanzania.
e-Government related standards and guidelines

Level 3

8 separate documents template for ICT management standards and guidelines

1) Institutional EA Template
2) ICT Policy Template
3) ICT Strategy Template
4) ICT Service Management Template
5) IT Security Policy Template
6) Disaster Recovery Template
7) Project Management Template
8) IT Acquisition, development and maintenance template
• This includes e-Governance framework, strategic management, resources optimization and value for money (benefits) from e-Government related initiatives.

  – Realization of the intended benefits for various e-Government initiatives is a critical aspect which the Government of Tanzania is focusing now. In an effort to improve this, e-Government is making thorough reviews of all ICT related Projects in the Government institutions to ensure the value for money spent is realized.

  – The Government ICT Projects Review checklist, criteria and Procedure are provided in the Agency’s website in order to guide Government Institutions in developing their ICT related projects, the link is: http://www.ega.go.tz/index.php/publications/index/4
ICT Project Review Criteria

• The Government ICT Projects will be reviewed using 12 Criteria. Under each criterion, there is list of items that will be reviewed.

  – ICT Project Conceptualization (alignment with Institutional/Government Strategic Plans)
  – Business Process Improvement (As Is and To Be Description, Value and Impact of the project)
  – Project Ownership (roles and responsibilities, business process ownership)
  – Stakeholder Engagement (Consideration of the key players requirements)
  – Relationship with other Similar Initiatives (Check on duplications)
  – Implementation Arrangement (In-house, or outsourced, vendor involvement etc)
  – Technology (Technology used, source codes, Security, technology change scalability etc)
  – Project Timelines (realistic of the timeline)
  – Project Sustainability (ICT HR, O&M Skills)
  – Financial Considerations (funding conditions, O&M Cost)
  – Risk Management (all risks and mitigations should be identified)
  – Other Alternatives (in case this project not viable)
Conclusion

• There is a need to adhere with set of e-Government standards and Guidelines to realize the ICT benefits in the Government.

• Involvement of e-Government Agency, will enhance the coordination of various ICT Initiatives in the Government and hence eliminates duplicates and increase the utilization of existing shared resources.
THANKS

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