



**THE UNITED REPUBLIC OF TANZANIA**  
**PRESIDENT'S OFFICE - PUBLIC SERVICE MANAGEMENT**  
**e-GOVERNMENT AGENCY**



**Document Title**

Quality Assurance Compliance Guidelines for e-Government Applications

**Document Number**

eGA/EXT/APA/007

APPROVAL	Name	Job Title/ Role	Signature	Date
Approved by	Dr. Jabiri Bakari	Chief Executive Officer		19/11/2018

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## **1. OVERVIEW**

### **1.1. Introduction**

e-Government Agency (eGA) is a semi-autonomous institution established under the Executive Agencies Act, Cap. 245. eGA is charged with the mandate of providing coordination, oversight and promotion of e-Government initiatives and enforcement of e-Government standards to Public Institutions. In that regard, the Agency prepares e-Government Standards and Guidelines to assist Public Institutions in implementing e-Government initiatives in a quality manner.

e-Government Applications Quality Assurance Compliance Guidelines define ways that Government Institutions or auditors/assessors will use to verify adherence of e-Government applications to quality requirements.

### **1.2. Purpose**

Quality Assurance Compliance guidelines aims at enabling Public Institutions to review quality of their applications, auditors to assess compliance to quality assurance requirements as well as assist quality assurance officers assist management in understanding the quality status of their applications.

### **1.3. Rationale**

Public Institutions have been implementing e-Government applications that sometimes fail to achieve the desired objectives or fail to meet evolving requirement of Institution and their users. In light of this the Government requires a professional way of ensuring that acquisition, development, operation and maintenance is done according to quality requirements. This document will aid in ensuring that those operations are in compliance with quality assurance requirements.

### **1.4. Scope**

This document will be applicable to all Public Institutions undertaking acquisition, development, operation and maintenance of e-Government Applications.

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## **2. COMPLIANCE GUIDELINES**

### **2.1. Applications Quality Requirements**

2.1.1. Public Institutions are required to comply with quality requirements described in e-Government Application Architecture (*eGA/EXT/APA/001*), particularly the ones available in the following standards and guidelines;

- i. Standards for Development, Acquisition, Operations and Maintenance of e-Government Applications (*eGA/EXT/APA/005*)
- ii. Guidelines for Development, Acquisition, Operations and Maintenance of e-Government Applications (*eGA/EXT/APA/006*)

2.1.2. Also, Public Institutions will be required to comply with Government directives on applications whenever they are issued.

### **2.2. e-Government Applications Compliance Guidelines**

2.2.1. These guidelines will be used for self-assessment by Public Institutions or for independent assessments by auditors or quality assessors.

2.2.2. Knowledge of application acquisition, development, operations and maintenance is a prerequisite in using this compliance guide.

2.2.3. The assessor or auditor will produce quality assurance report with the following contents;

- i. Executive summary;
- ii. Scope i.e. assessed Institution and applications;
- iii. Findings; and
- iv. Recommendations.

2.2.4. During application acquisition or development, all checklists on category 1 as **General Checklist for Application Development and Acquisition** of **“Checklist for Acquisition and Development of e-Government**

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**Applications”** on **Appendix A** are required to be checked on YES for applications to meet quality requirements. The assessor will provide remarks and recommendations on areas of interest with N/A or NO to assist Public Institution improve the quality of the acquired/developed product.

2.2.5. Specifically for application acquisition, together with 2.2.4 above, the checklists on category 2 as **Application Acquisition** of **“Checklist for Acquisition and Development of e-Government Applications”** on **Appendix A** are required to be checked on YES for applications to meet quality requirements. The assessor will provide remarks and recommendations on areas with N/A and NO to assist Public Institution improve the quality of the acquired product.

2.2.6. Specifically for application development, together with 2.2.4 above, the checklists on category 3 as **Application Development** of **“Checklist for Acquisition and Development of e-Government Applications”** on **Appendix A** are required to be checked on YES for applications to meet quality requirements. The assessor will provide remarks and recommendations on areas with N/A and NO to assist Public Institution improve the quality of the acquired product.

2.2.7. During application operations and maintenance, assessment is done by using **“Checklist for Operations and Maintenance of e-Government Applications”** on **Appendix B**. Note that vendor operations are not permitted, finding this as a NO on item **1.2** of the checklist violates quality requirements and should have a permitted exception. Other areas need professional judgment in comparison to the related standards and guidelines i.e. Standards for Development, Acquisition, Operations and Maintenance of e-Government Applications and Guidelines for Development, Acquisition, Operations and Maintenance of e-Government Applications.

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2.2.8. Public Institutions quality assessors or auditors will check compliance to quality requirements primarily using the checklists attached as appendix **A** and **B** on this document named **“Checklist for Acquisition and Development of e-Government Applications”** and **“Checklist for Operations and Maintenance of e-Government Applications”**.

**2.3. e-Government Application Quality Compliance Reviews**

2.3.1. Self quality compliance reviews may be done by Institutions themselves or by using third part with capacity to assess e-Government applications quality requirements.

2.3.2. Self quality compliance reviews should be done before putting any e-Government Application into operation and copy of the reports should be submitted to e-Government coordinating Institution.

2.3.3. For critical applications which are in operations, self quality compliance reviews should be done annually and copy of reports be submitted to e-Government coordinating Institution.

2.3.4. Verification of self quality compliance review reports will be done randomly with regard to Government requirements by CAG, IAG, eGA or any other independent Public Institution(s).

2.3.5. The quality compliance reviews may be done at any stage of application acquisition, development, operations or maintenance.

2.3.6. The quality compliance reviews should be done per application; however reports may be combined and attached with each application checklists.

2.3.7. Any non-compliance to quality compliance requirements as may be identified by assessments should be reported explicitly in review reports with accompanying reasons and evidence if any.

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### **3. IMPLEMENTATION, REVIEW AND ENFORCEMENT**

- 3.1. This document shall be effective upon being signed on its first page.
- 3.2. This document shall be subjected to review at least once every three years or whenever necessary changes are needed.
- 3.3. In case of any exceptions to these guidelines, authorization should be obtained from same authority which authorized this document or the owner of this document.

### **4. GLOSSARY AND ACRONYMS**

#### **4.1. Glossary**

**Application** - Is a program or a group of programs designed for end users i.e. software and application software designed and developed/acquired for the Government of Tanzania in order to serve citizens better.

#### **4.2. Acronyms**

<b>CAG</b>	Controller and Auditor General
<b>eGA</b>	e-Government Agency
<b>IAG</b>	Internal Auditor General

### **5. RELATED DOCUMENTS**

- 5.1. eGovernment Guidelines (**PO-PSM, 2017**)
- 5.2. e-Government Application Architecture - Technical Standards and Guidelines (**eGA/EXT/APA/001**)
- 5.3. Standards for Acquisition, Development and Maintenance of e-Government Applications (**eGA/EXT/APA/005**)
- 5.4. Guidelines for Acquisition, Development, Operations and Maintenance of e-Government Applications (**eGA/EXT/APA/006**)

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**6. DOCUMENT CONTROL**

<b>Version</b>	<b>Name</b>	<b>Comment</b>	<b>Date</b>
Ver. 1.0	eGA	Creation of Document	November 2018

# **APPENDICES**

## A. CHECKLIST FOR ACQUISITION AND DEVELOPMENT OF e-GOVERNMENT APPLICATIONS

<b>1. General Checklist for Application Development and Acquisition</b>					
	<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Remarks</b>
1.1.	Does the application address business requirements?				
1.2.	Did the requirements originate from user department?				
1.3.	Does the requirement include security requirements?				
1.4.	Was the internal ICT team involved?				
1.5.	Was it planned in Institution Strategic Plan/ICT strategy/ICT Policy?				
1.6.	Is the necessary IT infrastructure available to support the application from the Institution or government?				
1.7.	If it is an application acquisition /development project, has it been reviewed by e-Government responsible Institution?				
1.8.	Is knowledge transfer part of application acquisition /development?				
1.9.	Was the requirement gathered reviewed and an SRS produced?				
1.10.	Was the requirement document signed off by user department?				
1.11.	Was User Acceptance Test performed and signed by				

	user department?				
<b>2. Application Acquisition</b>					
2.1.	Does the Institution possess capacity to manage vendor?				
2.2.	Does the licensing scheme meet user department needs?				
2.3.	Has the Institution employed ICT staff capable of managing application acquisition project?				
2.4.	Did the application acquisition follow Government procurement procedures?				
2.5.	Are the trainings related to the application provided/planned?				
2.6.	Has the contract negotiation been done by knowledgeable/relevant staff?				
2.7.	Are roles and responsibilities of both parties (Public Institutions and vendor) stated clearly?				
2.8.	Was there an extensive testing on test environment before deployment of application?				
<b>3. Application Development</b>					
3.1.	Does the Institution possess necessary skills to develop the application?				
3.2.	If some skills are unavailable from the Institution, are they obtained from another government Institution?				
3.3.	If it is a large/complex application, was it				

	developed in phases?				
3.4.	Did each phase produce a verifiable deliverable?				
3.5.	Was every phase properly documented including testing?				
3.6.	Has the application been developed with the most recent version of the framework for the chosen technology?				
3.7.	Does all application code include sufficient comments for support personnel?				
3.8.	Did the application use approved institution/government software development methodology?				

## B. CHECKLIST FOR OPERATIONS AND MAINTENANCE OF e-GOVERNMENT APPLICATIONS

S/N:	Application Operations and Maintenance Quality Requirements	YES	NO	N/A	REMARKS
<b>1. Internal Operations</b>					
1.1.	Is the application hosted in Tanzania by the Institution or Government Institution?				
1.2.	Is the application not operated by vendor?				
1.3.	Has the application been handed over to operations department?				
1.4.	Has it been assigned application administrator(s)?				
1.5.	Is capability (Knowledge and Skills) for application operations i.e. installation, configuration and day to day application operations and support available internally to one or more staff?				
1.6.	Are internal application administrators given application specific training annually and this is budgeted?				
1.7.	Is there OLA with Institution user departments?				
1.8.	Is OLA compliance satisfactory?				
1.9.	Are privileged operations, events and incidents logged and auditable by Institution?				
1.10.	Are application logs audited regularly (i.e. monthly or less)?				
1.11.	Is ICT security handled internally?				
1.12.	Is there internal security operations capacity?				
1.13.	Has the application been tested for security in less than 12 months ago?				

<i>S/N:</i>	<i>Application Operations and Maintenance Quality Requirements</i>	<i>YES</i>	<i>NO</i>	<i>N/A</i>	<i>REMARKS</i>
1.14.	Was there no security improvement required?				
1.15.	Has the application security improvement been made?				
1.16.	Has the application passed the required application testing requirements?				
1.17.	Does the application meet user and operation requirements?				
1.18.	Are there no bugs/errors hindering Institution operations?				
1.19.	Does the application produce logs which are stored for the agreed/required period?				
1.20.	Are all application operations guided by documented process, procedures and guidelines?				
1.21.	Are procedural operations such as adding users documented/captured for future references?				
<b>2. Internal Maintenance</b>					
2.1.	Has the business process been re-engineered/changed?				
2.2.	Does the Institution have more than one programmer for the specified applications?				
2.3.	Is the change management process and procedures available and documented?				
2.4.	Has the maintenance need been raised through formal requests or through existing plans?				
2.5.	For procured applications, has the vendor released upgrade/patch/fixes and they are available for				

<i>S/N:</i>	<i>Application Operations and Maintenance Quality Requirements</i>	<i>YES</i>	<i>NO</i>	<i>N/A</i>	<i>REMARKS</i>
	incorporation at no additional cost?				
2.6.	Is change management process being adhered to during application maintenance?				
2.7.	Has the changes, improvement, fixes been documented?				
2.8.	Do the tests done (application tests, security tests and related) after maintenance show that the application maintenance was successful?				
2.9.	Has the user department been satisfied with the maintenance done?				
<b>3. Outsourced/Vendor Maintenance</b>					
3.1.	Is there a license/contract for maintenance and still valid?				
3.2.	Is support/upgrades part of existing license/contract?				
3.3.	Does the vendor release upgrade/patch/fixes that are available for incorporation at no additional cost?				
3.4.	Does the vendor disclose what is new/changed before upgrading/patching your application?				
3.5.	Is there a room for testing or evidence of testing for the changed/maintained application?				
3.6.	Does the maintained application function as required?				