



THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE, PUBLIC SERVICE MANAGEMENT AND GOOD GOVERNANCE
e-GOVERNMENT AUTHORITY

Document Title

Technical Guidelines for Video Conference Systems in the Government

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PREFACE

In taking the advantage of Internet as a necessary utility for our daily routine undertakings as it is for water and electricity, the need of communicating through Video Conference Technology (VCT) is also on the rise. The VCT provides a flexible way and cost-effective manner for conducting meetings or getting expert support anywhere and at any time without the need to travel (i.e. remotely) using various equipment like TVs, desktops, laptops and mobile phones.

Moreover, VCT enhances work output, saves time and reduces operational costs. However, presence of many VCT service providers and vendors, of both software and hardware with different capabilities and requirements, poses a huge challenge to public institutions when choosing the right Video Conference System to implement.

Section 26(1) (e) of the e-Government Act, 2019 requires public institutions to acquire Government ICT resources' specifications guide from e-Government Authority to ensure efficient and effective ways of utilization and management of Government ICT resources. Whereas, Section 49 of the Act requires the public institutions to comply with the technical guidelines when capturing, storing, processing and sharing the electronic data.

Pursuant to these provisions, the Authority has prepared Technical Guidelines for Video Conference System in the Government, with provisions on selection, acquisition, installation, and use of the video conference system as well as consideration for data sharing integrity, security and privacy.



Dr. Jabiri Kuwe Bakari

For: **DIRECTOR GENERAL**

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1. INTRODUCTION

1.1. Overview

e-Government Authority also known as "e-GA" is a public institution established in September, 2019 under the e-Government Act No. 10 of 2019 mandated to coordinate, oversee and promote e-Government initiatives as well as enforce e-Government related policies, laws, regulations, standards and guidelines in Public Institutions.

Pursuant to Section 5(2)(c) and 26(1)(e) of the Act, the Authority has developed the Technical Guideline for Video Conference System in the Government.

1.2. Objective

This document provides conditions and specifies basic requirements for acquisition and implementation of video conference systems.

1.3. Rationale

The use of video conference technology has recently emerged as convenient and efficient way of improving communication in daily government operations hence it is necessary to have a technical guideline for facilitating proper implementation and use of video conferencing systems in public institutions.

1.4. Scope

This document is to be used by public institutions during implementation and operation of video conference system. It provides guidance on implementation and technical operations of video conference system.

2. THE GUIDELINES

Video conference systems either proprietary or open source can be implemented using two approaches: a cloud based or on-premises. The choice of any VC systems must comply with provisions of the e-Government Act No. 10 of 2019, its Regulations, Guideline for Development, Acquisition, Operation and Maintenance of e-Government Applications, institutional requirements, available budget, data and information security and connectivity requirements. This part provides technical guidelines in alignment with these provisions.

2.1. General Guideline

2.1.1. Video Conference System Acquisition

In implementing Video Conference system either proprietary or open source, a public institution should ensure:

- i. Evidence of proof of functional capability of hardware and software to be acquired;
- ii. Inclusion of Session Initiation Protocol – SIP, International Telecommunication Union (**ITU**) standard for Integrated Services Digital Network (**ISDN**) conferencing protocol, **H.320** which includes G.711, G.722, G.722.1, G.728, AAC-LC, AAC-LD for Audio, H.264, H.263, H.261 for Video, H.239 for Data and H.221, H.231, H.242, H.243 for Control;
- iii. For Local Area Network (LAN) conferencing support ITU standard **H323**, which includes G.711, G.722, G.722.1, G.722.1C, G.723.1, G.728, G.729, AAC-LC, AAC-LD for Audio, H.265/HEVC, H.264 High Profile, H.264, (H.264 SVC), H.263, H.261 for Video, H.239 for Data and H.225, H.245, H.460 for Control;
- iv. Video Conference hardware accessories are easily upgradable with new features to avoid ICT products being disposed prematurely because some parts cannot be upgraded;
- v. Ability of the Video Conference system to support future growth;

- vi. Ability of the Video Conference system to support multiple site connection where applicable;
- vii. Warranty and guarantees are provided within the acquisition contract;
- viii. Presence of a service level agreement (SLA) specifying maintenance and support, cost, expiration of license and conditions for renewal or changing the license in case the acquisition is through a supplier;
- ix. The system uses full registered qualified domain (FQD) when routed over the Internet; and
- x. To prepare detailed Video Conference System specifications in line with institutional requirements.

2.1.2 Video Conference System Deployment

When deploying the video conference systems, public institutions should ensure:

- i. The systems are hosted in their in-house server or within other Government infrastructure;
- ii. The Video Conference Systems are installed on an IP based infrastructure with No third-party Server or Routing with possible tapping or saving the end-to-end communication;
- iii. Security assessment is performed in conformance with e-Government security requirements;
- iv. The application uses public IP to connect to the Internet and private IP to connect to internal servers;
- v. The system allows connectivity of minimum of 1Mbps from remote sites for usage of video conference; and
- vi. The system should not be able to record meetings proceedings.

2.1.3 Video Conference System Testing

Before deploying the systems, public institutions should ensure:

- i. The application is tested on a testing environment before being deployed; and

- ii. Testing comprises installation, administration, usability and suitability to the public institution.

2.2. Software based Video Conference Systems

In implementing software-based Video Conference systems public institution should ensure that:

- i. The application must support authentication of members participating in the meeting;
- ii. Appropriate and licensed video conferencing software (open source /proprietary) is acquired for encoding and decoding sound and video;
- iii. End-user gadgets such as desk top, laptop/ smart phone have working camera, microphone and speaker;
- iv. Cloud based implementation outside Government's infrastructure is not allowed;
- v. The application support minimum resolution of 480P, 4CIF, 4SIP;
- vi. The application support high definition video display technology; and
- vii. The application allows noise suppression.

2.3. Hardware based Video Conference Systems

In implementing hardware-based VC systems public institution should ensure that:

- i. All the required equipment such as video conferencing Codec, Camera, Microphone, Speakers and Television/projector/monitor are acquired based on the specifications for efficient performance; and
- ii. All pre-installed Software has maintenance and support agreement options with supplier.

3. IMPLEMENTATION AND REVIEWS

This document shall be:

- i. Effective upon being signed by the Director General on its first page;
- ii. Subjected to review at least once every three years or whenever necessary changes are needed; and

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- iii. Consistently complied with, any exceptions to its application must duly be communicated to and authorized by the Director General.

4. ACRONYMS

e-GA	e-Government Authority
ICT	Information Communication Technologies
VCT	Video Conference Technology

5. RELATED DOCUMENTS

- i. e-Government Act No. 10. of 2019.
- ii. e-Government General Regulations, 2020.
- iii. e-Government Guidelines (PO-PSM, 2017).
- iv. Guideline for Development, Acquisition, Operation and Maintenance of e-Government Applications (eGA/EXT/APA/006).
- v. Mwongozo wa Mawasiliano kwa Njia ya Video Serikalini wa Mwaka 2014.

6. DOCUMENT CONTROL

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