



Bungoma County ICT Policy 2020

COUNTY GOVERNMENT OF BUNGOMA



**BUNGOMA COUNTY INFORMATION, COMMUNICATIONS AND TECHNOLOGY
(ICT) POLICY 2020**

December, 2020



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PART I - INTRODUCTION

1.1 Background Information

County Government of Bungoma (referred to hereafter as CGB”) encourages the use of electronic communication to share information and knowledge in support of the CGB’s mission and vision. To this end, the CGB supports and provides interactive electronic communication services and facilities such as telephones, voicemail, teleconferencing, video conferencing; electronic mail, bulletin boards, social networking; electronic publishing services such as the Internet. These communication services rely on underlying voice, video, and data networks delivered over both physical and wireless infrastructures. Digital technologies are unifying these communication functions and services.

In 2015, the CGB adopted a five-year ICT Roadmap (2015-2020) that outlined its overall vision, mission as well as other ways to improve delivery of ICT services. One of the areas that the CGB is giving considerable attention is the formulation and implementation of an ICT policy and strategy. The CGB is aware that most institutions in both the public and private sectors are re defining their policies and strategies to embrace ICT. The immediate challenge for CGB is to establish short, medium and long-term ICT plan and adoption of an enabling policy. There is also need to harmonize and integrate existing systems, present and future initiatives. In this regard efforts to establish appropriate ICT standards, data security systems and procedures as well as related quality assurance mechanisms are a priority.

The Policy recognizes this convergence and establishes an overall policy framework for electronic communication. This Policy clarifies the applicability of law and of other CGB policies to electronic communication. It also establishes new policy and procedures where existing policies do not specifically address issues particular to the use of electronic communication. Where there are no such particular issues, this Policy refers to other CGB policies. An integrated policy cannot anticipate all the new issues that might arise in electronic communication. The purpose of this Policy is to provide a framework within which these new issues can be resolved and that recognizes the intertwining legal, institutional, and individual interests involved.

1.2. Policy Statement

The CGB will continuously enhance its organizational capacity by adopting modern technology and skills development. This policy will ensure that ICT resources are optimally utilized in order to achieve efficiency in service delivery. It will facilitate efficient and effective service delivery through timely provision of a robust ICT infrastructure, application software, support services and operational capacity.



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1.8. Context and Rationale

The Constitution of Kenya (2010), the Vision 2030, the Kenya Communications Act (No. 2 of 1998) and as amended by the Kenya Communications (Amendment) Act, 2009, and the Kenya Information and Communications (Amendment Act) 2013 provide the main framework for regulating the communications sector in Kenya. Other statutes include the Media Act, 2013 and the Kenya Information and Communications Technology (ICTA) Order 2013, Data and privacy protection bill, Intellectual property, trademarks and copyrights acts, Kenya electronic communication act 2012, Cyber security legislations, CGB ICT Roadmap (2015-2020) and the National Government Procurement Manual. ICT capacity in CGB has grown as demonstrated by the number of equipment and the personnel who have received basic, functional and specialized training. ICT infrastructure has also been improved by the installation of Local Area Network at the CGB headquarters and Sub-counties. The current challenges being experienced by ICT services are occasioned by the level of existing capacity in terms of technology, lack of information systems integration, state of facilities and infrastructure. The service objective is to increase the capacity of CGB staff to access data and process information necessary for improved service delivery. It is also envisaged that operations at CGB will be automated and interconnectivity between CGB and all other outer stations will be achieved



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CHAPTER TWO POLICY FRAMEWORK

2.1. Strategic Direction

The vision of this policy will guide the implementation of the communication function towards ensuring information provision, awareness raising and understanding. This will ultimately encourage the participation of the Bungoma County citizenry in the timely, effective and responsive delivery of services by an accessible and accountable leadership.

2.1.1. Vision Statement

“To harness the Power of the ICT Industry”

2.1.2. Mission Statement

“To enhance County-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors through providing a conducive framework for investments in capacity building and knowledge sharing at County level, nationally and even globally”.

2.1.3 Objectives of the CGB ICT Policy

The objectives of CGB’s ICT policy are to:

- ✚ Ensure development and maintenance of ICT systems
- ✚ Support the development and implementation of ICT in the CGB
- ✚ Promote efficient and effective operations and usage of ICT systems within the CGB
- ✚ Facilitate the development of ICT skills to support ICT systems in the CGB
- ✚ Encourage innovations in technology development, use of technology and general work flows within the CGB
- ✚ Promote Information sharing, transparency and accountability within the CGB and towards the general public
- ✚ Promote efficient communication among the CGB’s staff, customers and/or stakeholders
- ✚ Ensure that ICT facilities are fully accessible to all staff

2.1.4. Key Principles

This policy shall be guided by the following key principles:

- (i) Mainstreaming of ICT in the CGB
- (ii) Seamless integration of ICT platforms
- (iii) Inclusion, flexibility and support of other quality management systems
- (iv) Adherence to best practices & policies
- (v) Economies of scale and customer value propositions



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2.1.5. Scope

The ICT Policy shall apply to all the CGB's employees and stakeholders. The policy will address Information Systems, Information Technology, Human Resource Development, Governance and Business Continuity strategies in relation to the CGB's operations.

2. 1.6. Roles and Responsibilities of implementing this policy

The overall responsibility of implementing this policy will lie with the Corporate Technical Committee which will be responsible for the overall strategic management of ICT resources in the CGB. The Committee will draw representation from CGB Board members and co-opt other members from the staff of CGB who in their opinion will add value to the work of the Technical Committee.

Specifically, the Committee will be responsible for oversight, enforcement and review of the policy and the initiation of ICT projects.

The technical committee of the Board provides regular, timely and accurate advice and direction on policy formulation, planning and implementation. The Committee will review the effectiveness of CGB's ICT technologies, their effectiveness and relevance to the functions in service delivery to its customers.

The technical committee is mandated to oversee the implementation of the automation of CGB processes. Its functions also include but not limited to:

Evaluating the overall effectiveness of ICT technologies developed and implemented:

- Reviewing compliance matters that may have a material impact on the CGB's ICT policies.
- Developing strategies and policies for ICT systems.
- Developing an ICT policy for the CGB
- Receiving and reviewing the ICT proposals for ICT implementation.
- Reviewing all contracts, agreements or other instruments involving the ICT affairs.
- Assuming such other responsibilities as from time to time may be delegated by the Board.

Additionally, the committee provides technical advice in regards to the implementation of the all ICT related systems. In instances where the CGB is required to procure and install ICT equipment and software, the Committee provides technical advice in terms of technical specifications and subsequent evaluation of tenders.



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CHAPTER THREE INFORMATION TECHNOLOGY AND SYSTEMS OPPORTUNITIES AND STRATEGIC POLICY INTERVENTIONS

3.1. Information Systems policies

Information Systems policies are intended to support structured approach to acquisition, development, operations and maintenance of information systems in the CGB. In this way, the CGB will guarantee their success and, therefore better decision support to meet its mandate. The ICT Directorate is the sole custodian and technical administrator of all Information Systems and Applications in the CGB.

3.1.1. Application Systems

a) Initiation of a Software Project

All software acquired and developed shall be used strictly for CGB purposes only. Every software acquisition or development request shall be initiated through a written statement of scope and objective. The written statement will be submitted to the CGB's Technical Committee.

b) Acquisition

With respect to software acquisition:

- i) The CGB will use packaged software as the preferred option
- ii) In the event that custom development of software is proposed, the request for such development must be justified on case by case basis
- iii) Only open source software with technical support shall be used with approval of the ICTD

c) Development

With respect to software application development:

- ✚ Each software development project will be initiated on the basis of an approved requirements specification which:
 - Identifies user requirements (functional requirements) expressed in non-technical language.
 - Identifies beneficiaries
- ✚ If the Requirements (specifications) are approved the project sponsor and owner will proceed with the technical Specification to express user requirements specified in technical language
- ✚ The CGB shall purchase only fully licensed copies of computer software
- ✚ User testing and acceptance are the necessary and sufficient conditions for systems commissioning



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d) Maintenance

Application software maintenance is critical for effectiveness and efficiency of the system. The following policy will therefore apply:

- (a) Access to live systems will be restricted to authorized users
- (b) Application software purchased must have service level maintenance agreements to ensure continuity
- (c) Only certified or supplier authorized agents will be allowed to provide maintenance
- (d) Internal maintenance shall be provided by personnel trained and certified
- (e) Maintenance contracts for Information systems in the CGB shall be managed by ICT directorate

3.1.2. Operating Systems

The following policies are intended to facilitate the governance of office automation within the CGB:

- (i) Microsoft's Windows Operating Systems will be the preferred Operating System for all computers
- (ii) The CGB will standardize its office productivity tools on the Microsoft Office suite
- (iii) Commonly used functions that require the same templates will be supported through issuance of CGB-specific templates

a) Anti-virus Software

With respect to anti-virus software:

- (i) The ICT Director shall ensure availability and continuous update of anti-virus protection on all computers, laptops and servers
- (ii) No person shall be allowed to connect private PCs, laptops, modems or any ICT peripheral to CGB's network or hardware
- (iii) All removable media in use within the CGB must be scanned for viruses.

3.1.3. Data Management

In order to ensure that data and information are available as and when required, the following policies will be adopted:

- (i) It is the responsibility of heads of functional areas in close consultation with the ICT Director to determine and design the data that should be available in the CGB
- (ii) The ICT Director will ensure overall data capture, availability, accuracy, confidentiality, and integrity.
- (iii) The CGB will acquire systems and tools to create, process, manage and preserve data



- (iv) *Bungoma County ICT Policy 2020*
The data shall be classified into Confidential and Public

3.1.4. Internet Based Systems

The ICT Director will adopt and develop the following internet based systems as a means of communication and service delivery:

- (i) Websites
- (ii) E-mail systems
- (iii) Short Message services
- (iv) Intranet
- (v) Collaborative system

3.2. INFORMATION TECHNOLOGY POLICIES

3.2.1 Information Technology

The objectives of Information Technology policies must be consistent with public sector standards issued by relevant authority such as the CGB procurement Manual and E-Government Secretariat, Legal authorities, National Single Window System.

a) Desktop Computers

- (i) The CGB shall seek to:
 - (a) Standardize hardware equipment to minimize multi brands
 - (b) Allocate computers to user departments appropriately
 - (c) Provide uninterrupted power supply and protection to all ICT installations in order to protect the systems and information backups from power fluctuations and surges
 - (d) Review hardware specifications to be in line with current technological trends
- (ii) Users are accountable for all ICT equipment allocated to them

b) Laptops

With respect to laptops:

- (i) Laptops will be procured for service areas and assigned to officers whose nature of work merits their use
- (ii) Hardware specifications will be reviewed to be in line with current technological trends
- (iii) Users are accountable for all laptops issued to them
- (iv) There will be no additional software installation without prior authority from the ICT Director

c) Servers

The following best practices will be adhered to with respect to server deployments within the CGB:



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- (i) Maximization of the storage system
- (ii) Ensuring online and offsite backups and real-time replication for critical applications
- (iii) Disaster prevention arrangements (see Business Continuity)
- (iv) The acquisition of servers should be standardized to avoid multi brands

- (v) All servers other than for backing up and disaster recovery shall be located in a central server room

- (vi) The ICT Director will be responsible for the administration of all the servers in the CGB
- (vii) Provide uninterrupted power supply and protection for all servers

- (viii) Review hardware specifications to be in line with current.
- (ix) Data transfer and storage on the network: Keep master copies of important data on your profile e.g. My Documents folder. Otherwise it will not be backed up and is therefore at risk. This applies to managers. If you change your computer, you should inform IT support to update the DLO agent which facilitates backup of your profile. Personal files should be kept to minimum.

3.2.2 Procurement

The procurement of hardware, software, peripherals and network products shall be guided by CGB procurement rules and regulations and:

- (i) Must conform to minimum specifications and standards established by the ICT Director
- (ii) Must be informed by annual procurement plans
- (iii) Take into account software requirements and anticipate future requirements
- (iv) The CS will approve directly procurement of ICT emergency equipment, be it from manufacturers, authorized dealers and/or certified service centers
- (v) Must have warranty



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3.2.3 Inventory

- (i) The CGB shall establish and maintain an inventory of all ICT equipment in the service areas.
- (ii) In the event of movement of officers occasioned by deployment or exit, the Head of the affected service area shall reallocate any ICT equipment under their custody and communicate the same to the ICT Director for purposes of updating the inventory
- (iii) Movement of IT hardware from one office to another is restricted

3.2.4. Installation

On installation of information technology products:

- (I) An Installation Certificate must be issued and signed by the head of ICT who shall be involved in the entire installation process
- (ii) The head of the service area shall be responsible for all installations
- (iii) All installations must be in accordance with the supplier standards and Association's requirements

3.2.5 Operations

- (i) All operations must have User and Technical manuals from the supplier
- (ii) The operating environment must conform to the minimum manufacturers' specifications or international standards
- (iii) Emergency procedures must be clearly displayed in the server room and data centre

3.2.6 Maintenance of ICT Equipment

Maintenance of ICT equipment is critical for effectiveness and efficiency of CGB operations. The following policy will therefore apply:

- (i) ICT hardware purchased must have Service Level Maintenance Agreements on expiry of the warranty;
- (ii) Only certified manufacturer authorized agents will be allowed to provide maintenance
- (iii) Internal maintenance shall be provided by personnel trained and certified
- (iv) Maintenance contracts for ICT equipment shall be managed by the ICT Director.



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3.2.7 Decommissioning of ICT Equipment

With respect to decommissioning ICT equipment:

- (i) All ICT equipment shall have a predetermined life span
- (ii) There must be written justification by the Director of ICT for decommissioning of any ICT equipment
- (iii) Equipment that are no longer effective or in use will be decommissioned within 6 months after the review
- (iv) ICT equipment will be decommissioned after an installation certificate has been issued for replaced systems
- (v) A Decommission Certificate will be issued on successful conclusion of the exercise

3.2.8 Disposal

Information technology resources disposal must:

- (i) Be in accordance with the existing public disposal rules and regulations
- (ii) Avoid or minimize degradation to the environment
- (iii) Seek to re-use some of or all the computer components
- (iv) Seek authority to donate any retired computer equipment
- (v) Remove data and systems on all hardware to be disposed off
- (vi) Comply with manufacturer, supplier or service provider terms and conditions of disposal
- (vii) Be indicated on the Disposal Certificate

3.3. SYSTEM CONTROLS AND SECURITY POLICIES

The CGB has invested substantially in ICT resources. These resources are vital in realizing the CGB's business objectives and are integral to the ability of the CGB to operate effectively. This policy establishes general guidelines, rules and regulations for the use and protection of the CGB's information and ICT systems. The implementation of this policy will thus promote the availability, integrity and confidentiality of the CGB's ICT systems.

3.3.1. Objectives

- (i) Create general awareness on appropriate security measures that must be implemented to safeguard the effective operation of the CGB
- (ii) Highlight the responsibilities necessary for the protection of ICT systems
- (iii) Facilitate the preservation of the integrity and privacy (confidentiality) of the CGB's information
- (iv) Protect and promote the CGB's reputation



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3.3.2 Systems Security Control Policy

The CGB's ICT systems, and the service they provide, will be protected by effective control of security risks at all levels of the organization, providing, managing and operating to ensure that the requirements regarding availability, confidentiality and integrity are preserved

(i) **Access:** Access to the systems will be restricted to authorized users as determined by the head of a service area

(ii) **Breaches:** Any breach of this policy shall be dealt with under the CGB's Disciplinary Policy and Procedures. In addition, the CGB may advise law enforcement agencies of the breach where it considers that a criminal offence may have been committed

(iii) **Review:** The Technical Committee will establish a sub-Committee whose responsibilities will include the review of this aspect of the ICT policy at intervals of six months and amended as need arises. Any changes shall be communicated to all users of the CGB's ICT systems

3.3.3. Physical Security

ICT resources are generally exposed to the risk of unauthorized access, manipulation, disruption and natural disasters. In an effort to protect the ICT equipment and systems and ensure their availability the CGB will institute appropriate control measures to ensure that its ICT resources are safeguarded. Appropriate controls will be established to limit access to ICT infrastructure, computer equipment and data, commensurate with the acceptable level of risk. The access to the CGB's ICT systems shall be reviewed every six (6) months.

3.3.4. Passwords

The ICT department shall prevent unauthorized access to the CGB's corporate computer systems. Such controls shall take the form of passwords in the user identification process. Data Security

The head of ICT shall develop rules, regulations and guidelines that ensure confidentiality, integrity, availability and safety of all CGB information.

3.3.5. Copyright and License Agreements

Only licensed software shall be used in the CGB. Copying and distribution should not be done without the necessary licenses. The ICTD will ensure that all software applications used by the CGB complies with the relevant licensing agreements, compile all relevant licensing agreements and maintain a record.

3.3.6. Internet

- (i) To ensure productive, appropriate use and to minimize risks, access to the Internet should be limited to staff who need it for their work. Users should use the Internet in an effective, ethical and in a lawful manner.



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- (ii) Users should not use the CGB's Internet access to view, print, distribute, display, send or receive images, text or graphics of offensive or obscene material or material that violates any Kenyan law.
- (iii) The CGB shall maintain a log of sites visited as a means of determining appropriate usage.
- (iv) The CGB shall install and maintain firewalls to filter content coming in or going out via the internet and protecting external attacks

3.3.7 Email

- (i) The CGB encourages the use of email and respects the privacy of users. The CGB will not routinely inspect, monitor or disclose the contents of email without the consent of the user. However, subject to the requirements for authorization, notification, and other conditions specified in this Policy, the CGB may inspect, monitor, or disclose email when the CGB believes that it has a business need to do so. The use of email must be related to the CGB's business activities.



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- (ii) For proper utilization of server disk space, uncollected mails will be disposed after every forty five (45) days. Mail users will be allocated disk quotas for storing mail. Use of email is permitted as long as it does not:
 - (a) Violate this policy
 - (b) Degrade the performance of the network
 - (c) Divert attention from work
- (iii) A disclaimer shall be applied to all outgoing email (See Annex I)

3.4. BUSINESS CONTINUITY POLICIES

Major operational disruptions pose a substantial risk to the continued operation of the CGB. The extent to which the CGB incorporates the risk of a major operational disruption in its business continuity plan is dependent upon its risk profile.

- (i) The CGB shall ensure the implementation of the business continuity plan by periodically conducting a business impact analysis at least once a year.
- (ii) An organizational risk assessment, risk management and risk monitoring to identify the mission critical activities and potential for major disruptions will also be undertaken. The CGB should also provide sufficient human and financial resources to support Business Continuity Management.

3.4.1. Responsibilities of the CS and Top Management

The responsibility for business continuity management rests with the CGB and the senior management who are expected to formulate business continuity policy reviews, procedures and guidelines. All these must be documented and reviewed after every two (2) years. CS and senior management shall be responsible for:-

- (i) Creating a Business Continuity Management Document
- (ii) Defining the roles, responsibilities and authority to act in the event of a major disruption
- (iii) Constituting Business Continuity Management Team consisting of:
 - (a) CS
 - (b) Coordinator (drawn from the technical Committee)
 - (c) Department Heads
 - (d) ICT Director
- (iv) Constituting Crisis Management Team consisting of all heads of critical operational areas
- (v) Accountability for business continuity management in cases of outsourced business continuity function



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3.4.2. Risk Assessment

A risk assessment examines the most urgent business functions identified during business impact analysis. It looks at the probability and impact of a variety of specific threats that could cause a business disruption. The CGB shall undertake a Risk Assessment of its ICT processes every one (1) year.

3.4.3. Business Impact Analysis

Business impact analysis forms the foundation upon which the business continuity plan is developed. It identifies critical business functions and operations that need to be recovered on a priority basis and establishes appropriate recovery objectives for those operations. It should be completed in advance of a risk assessment in order to identify the urgent functions upon which a risk assessment should be focused.

3.4.4. Recovery

- i). The CGB shall develop recovery procedures that reflect the risk they represent to the operation of its systems taking into consideration the interdependency of risks
- ii) The CGB shall facilitate testing of plans to ensure that crisis and recovery teams are aware of their roles and responsibilities in the event of a disruption
- iii) In cases where the CGB shares or outsources a disaster recovery site, there must be service level agreements or contract in place that clearly outline the terms that govern these arrangements between the parties
- iv) Recovery solutions must be based on Business Impact Assessment (BIA) information



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CHAPTER FOUR POLICY IMPLEMENTATION FRAMEWORK, MONITORING AND REVIEW

4.1. Monitoring & Evaluation

All ICT systems, as with all other assets, are the property of the CGB. The CGB therefore reserves the right to monitor these systems to ensure compliance with this policy. The monitoring of the ICT system activities will be carried out in a manner that respects the rights and legitimate interests of those concerned.

Users of the CGB's ICT systems should be aware that their activities can be monitored and they should not have any expectation of privacy. In order to maintain their privacy, users of the CGB's ICT resources should avoid storing information on these systems that they consider private.

By using the CGB's ICT systems, users expressly consent to the monitoring of all their activities within the CGB's ICT systems.

- (i) During the implementation of this policy, the CGB will ensure that there is continuous monitoring and evaluation for efficiency, accountability and transparency. The Monitoring and Evaluation will be carried out by the ICT internal team in consultation with the corporate Technical Committee

4.2. Compliance

All users of the CGB's ICT systems are required to read the ICT security policy and give a written declaration that they will adhere to the guidelines set out in the document. The signed declaration should be returned to the head of ICT. A sample declaration is provided in Annex III.

Compliance Requirements and Obligations Shall Include:–

- (a) Reporting obligations according to agreed formats;
- (b) Abiding by the principles of the policy
- (d) Abiding by the agreed quality, quantity, time and standards. (These shall be defined and agreed with stakeholders).

Non-compliance to this Policy shall be managed in accordance with the relevant legal and regulatory provisions.

4.3. Review of Policy

This Policy establishes a framework for management of public participation in the county. The practice, approach and tools for implementation will continue to evolve with time. As such this Policy will be reviewed through a participatory process after every 3 year in line with the implementation period for the MTPs for Vision 2030 and CIDPs, so as to capture relevant developments and emerging



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practices and approaches. There shall however be a continuous review process of the Policy.

REFERENCES

1. The National ICT Policy 2019
2. The Bungoma County ICT Road Map 2015
3. The ICT Standards 2016 (first edition)