The National Treasury
& Economic Planning

The National Treasury

INFORMATION COMMUNICATION TECHNOLOGY

ICT POLICY

(2025)

ICT Vision

To promote Public Finance Management and Economic Growth

ICT Mission

To promote Public Finance Management and Economic Growth through cutting-edge ICT infrastructure, skills development and innovations for public service delivery.

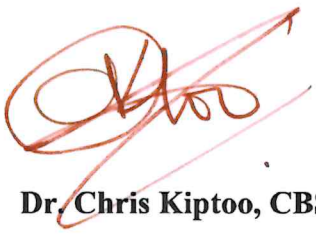
FOREWORD

For prudent public finance management and economic excellence, The National Treasury has embraced Information and Communication Technology (ICT). Consequently, this has led to technological investment in ICT infrastructure, deployment and retention of required skills for efficiency and effectiveness service delivery.

However, overtime as a result of technological advancement in ICT and broadening of TNT mandate which has necessitated more highly skilled workforce, there has been a strain in the infrastructure and skills available. This is characterized by inadequate and obsolete ICT infrastructure and the need to re-skill and re-tool the workforce.

In this regard, the development of this ICT Policy is a panacea towards the realization of TNT mandate in public finance management and economic excellence through improved ICT infrastructure and continuous capacity development. The Policy sets out the aims, principles and strategies for efficient service delivery which forms the basis for the development and integration of ICT in TNT operations and processes. Further, the Policy will enable the TNT to define the purpose of ICT while providing the opportunity to inform the employees about the risks and rewards associated with its use.

The implementation of the Policy will enable the TNT to provide latest ICT infrastructure in a bid to ensure effective execution of its mandate. It will also help TNT to build capacity of the employees to the realization of the National Treasury's Vision.



Dr. Chris Kiptoo, CBS
PRINCIPAL SECRETARY
THE NATIONAL TREASURY

PREFACE

The full implementation of this ICT policy will lead to improved ICT infrastructure and enhanced ICT capacity for public finance management and economic excellence.

The policy is a product of highly consultative process involving all the internal and external stakeholders of TNT. The process involved constitution of an interdepartmental committee that drafted, reviewed and incorporated all comments as appropriate.

I wish to acknowledge TNT interdepartmental committee for their dedication and effort in the preparation of this policy which is aimed at streamlining our ICT infrastructure development, Skills and innovations for service delivery.

I therefore call upon all stakeholders' commitment in the implementation of this policy for the realization of TNT mandate.

Edward Ruteere
DIRECTOR, ICT
THE NATIONAL TREASURY

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ACRONYMS AND ABBREVIATIONS

TNT	The National Treasury
BCP	Business Continuity Plan
BYOD	Bring Your Own Device
CCTV	Closed Circuit Television
CIRT	Computer Incident Response Team
CIT	Contract Implementation Team
CRM	Customer Management System
DR	Disaster Recovery
DRP	Disaster Recovery Plan
EDMS	Electronic Document Management System
G2B	Government to Business
G2G	Government to Government
HRM&D	Human Resource Management and Development
HRMIS	Human Resource Management Information System
ICT	Information Communication Technology
IDEA	Interactive Data Extraction and Analysis
IP	Internet Protocol
IS	Information Systems
ISMS	Information Security Management System
LAN	Local Area Network
NDA	Non-Disclosure Agreement
NEMA	National Environment Management Authority
OLA	Operational Level Agreement
OSHA	Occupational Safety and Health Act
PLWDs	Persons Living with Disabilities
PPRA	Public Procurement Regulatory Authority

SCMS	Supply Chain Management Services
SLA	Service Level Agreement
SOP	Standard Operation Procedures
UPS	Uninterrupted Power Supply
VLAN	Virtual Local Area Network
WAN	Wide Area Network
WAP	Wireless Access Point
WLAN	Wireless Local Area Network
VESDA	Very Early Smoke Detection Apparatus

DEFINITION OF TERMS

Term	Operational definition
Customers	Citizens and Contractors
Stakeholders	MDAs at National and County Governments, Development Partners and Citizens
Employees	The National Treasury Staff
Broadband	High speed Internet access with a wide bandwidth data transmission which transports multiple signals and traffic types.
Business Continuity Plan	A proactive plan to ensure that business processes continue during a time of emergency or disaster.
Computer incident	Any event compromising the availability, authenticity, integrity or confidentiality of stored, transmitted or processed data or of the related services offered by, or accessible via, network and information systems.
Computer Incident Response Team	A team that is assigned the responsibility for deterring, coordinating and supporting the response to a computer security event or incident.
Clean Power	Electrical power that is free from voltage spikes and drops.
Cloud Computing	On-demand availability of computer system resources especially data storage and computing power without direct active management by the user.
Compliance	Conformity with established ICT guidelines, specifications, relevant laws and regulations.
Data Centre	Physical room, building or facility that houses IT infrastructure for building, running, and delivering applications and services.
Disaster	An incident that causes damage, loss of life or property.
E-Government	The use of Information and Communication Technologies to offer services by the government.
Enterprise Architecture	A conceptual blueprint that defines the structure and operations of an organization.
E-Waste	Electronic and electrical devices discarded on or before the end of their useful life.

Term	Operational definition
Government-to-Business	An online non-commercial interaction between local and central government and the commercial business sector offering and exchange of services between government and businesses.
Government-to-Government	Sharing of data and systems between government Ministries, Departments and Agencies.
Hardware	Physical, tangible parts or components of a computer or computing systems.
ICT Facilities	The Server rooms, Data centers, ICT operation rooms and any other room dedicated to ICT infrastructure and equipment.
ICT Governance	Processes that ensure that an organization's IT sustains and extends the organization's strategies and objectives.
ICT Infrastructure	Composite hardware, network, firmware, resources and services required for existence, operation and management of enterprise environment.
ICT Policy	A top management document which guides ICT intentions and directions of the Ministry.
ICT Project Management	The process of planning, organizing and delineating responsibilities for the completion of ICT goals in the Ministry.
ICT Risk Assessment	Overall process of risk identification, risk analysis and risk evaluation.
Information Security Management System	Documented management system that consists of a set of policies, processes and systems to manage risks to organizational data with the objective of ensuring acceptable levels of information security risk.
Ministry	The National Treasury
Management of Applications	The Process of managing applications throughout their lifecycle.
Non-Disclosure Agreement	A legal contract that prohibit a party from disclosing, sharing or using other than the intended purpose an entity's data or information that it may be given, discussed or come across during the period of its engagement.
Online Service	A service provided over the internet.
Operational Level Agreement	Internal Ministry's agreements defined for internal users to meet Service Level Agreements.

Term	Operational definition
Service Level Agreement	A contract between a service provider and a client that documents the services provided while defining what the client will receive and clarifies what is expected of the service provider.
Service Provider	An organization or institution that offers ICT services to the Ministry.
Software	A set of coded instructions in the form of programs that perform certain tasks using a computer's hardware.
Tier II Standard	Data center with VESDA, fire-suppression, raised-floor, false ceiling, environmental monitoring, CCTV monitoring, dedicated space for IT systems with a different room for power, dual UPS, dual cooling equipment, generator, dual-internet source, Uptime of 99.75%.
User	A person who uses ICT application, equipment, facilities, processes or systems in their day-to-day operations.

1.0 INTRODUCTION

1.1 BACKGROUND

Advancement of Information Communication Technology (ICT) over the last few decades has impacted the way businesses is conducted, knowledge sharing and general information flow. The high adoption of technology by organizations has brought the need to have a policy to guide ICT adoption, usage and acquisition by organizations.

To this end, the Ministry of ICT and Digital Economy developed National ICT Policy in 2019 which is being implemented to address the changes in technology and other emerging technological issues.

Kenya on August 7th, 2020 Gazetted the National ICT Policy guidelines, Vol. CXXII No. 150, The Guidelines has five objectives namely: The policy objectives:
Create Infrastructure conditions for use of always on high-speed internet across the country. Grow the contribution of ICT to economy to 10% by 2030. leverage regional and international corporation and engagement to ensure that Kenya is able to harness global opportunities development. Position the country to take advantage of emerging trend such as the shared and gig economy. Gain global recognition for innovation, efficiency and quality in public service delivery. ICT was identified as one of the key enablers of the Vision 2030 through raising productivity and efficiency levels across the three pillars (economic, social and political) of the vision 2030.

In addition, the policy emphasizes four key areas, with a strong focus on Public Service Delivery which requires that all government services must be available online. This is to ensure effective and efficient service delivery. The policy requires government entities to develop and manage both back-end and front-end systems locally, while ensuring security and privacy of the data.

The National Treasury in recognizing the critical role of secure and efficient ICT systems in managing financial resources and ensuring transparency, has focused on enhancing its cybersecurity measures, streamlining data management processes, and improving the interoperability of its systems. This includes implementing advanced data encryption protocols, developing robust disaster recovery plans, and ensuring compliance with the latest regulatory standards. Additionally, the National Treasury is prioritizing the integration of cutting-edge

technologies to enhance its digital financial services, improve user experience, and ensure that all ICT initiatives support the National Treasury's overarching goal of maintaining fiscal stability and promoting economic growth.

1.2 SITUATION ANALYSIS

The National Treasury has historically automated functional areas as per the departmental needs. Consequently, each functional area has automated its processes without regard to other departmental needs. This has resulted to systems that cannot exchange data seamless, thus calling for expensive integrations that don't work at times.

Most software and hardware were acquired more than ten years ago. The Local Area Network (LAN), the Data Center and supporting infrastructure were developed at the same time. Due to tear and wear and change in technology, these technologies are no longer operating optimally resulting in system unavailability, data center and network failure. Further, some of the necessary hardware components are no longer being manufactured making the existing infrastructure.

Technology acquisition requires concurrent capacity building of technical support and system users. However, in the past this has not been the case. Thus, Technologies have been acquired without necessary capacity building. In addition, the training programs are expensive leading to avoidance of such trainings.

Acquisition and allocation of end user devices for the National Treasury is done and recorded manually. In addition, once procured, the devices are issued to a department in a batch before the same are issued to individual officers. Further some departments acquire and issue end user devices to their officers without involving the ICT department thus resulting in a decentralized ICT inventory. This decentralized and disjointed mode of acquisition, issuance and recording of ICT equipment led to unfair allocation where some officers have multiple equipment at the expense of others.

2.0 RATIONALE, OBJECTIVES AND SCOPE OF THE ICT POLICY

2.1 RATIONALE

Over the years, The National Treasury has undertaken automation activities based on the functional areas and as user needs arise. This has resulted in the emergence of many standalone systems, disjointed automation efforts, duplication of automation efforts and haphazard acquisition of ICT infrastructure. In addition, acquisition of end user devices has not been done a coordinated manner since each department acquires for its own staff without due regard to the needs of TNT. Rapid technological changes have compounded the problem of skills gap and obsolesce of the infrastructure.

Due to rapid technological changes and the cost of adopting new technologies, the National Treasury now has obsolete infrastructure and outdated software solutions. To keep these platforms in working condition, has been an expensive venture since in some instances spare parts and software upgrades are not available in the market. In addition, there are few staff who can operate these systems.

Recognizing the critical role of secure and efficient ICT systems in managing financial resources and ensuring transparency, there is a clear need for a comprehensive ICT policy. An ICT policy would provide a structured approach to streamlining data management processes, integrating emerging technologies, and enhancing the interoperability of systems.

2.1.1 POLICY STATEMENT

TNT is committed to creating an enabling environment for promotion and use of ICT in the provision of services. It will continuously enhance its organizational capacity by adopting modern technology and skills development.

2.2 POLICY OBJECTIVES

2.2.1 General Objective

To provide cutting-edge ICT solutions for prudent public finance management and economic excellence.

2.2.2 Specific Objectives

The specific objectives of this policy are to:

(i) Ensure compliance with existing standards, legislative and regulatory requirements during acquisition, implementation, maintenance and use of ICT resources in TNT.
(ii) Provide ICT infrastructure and services responsive to the needs of TNT.
(iii) Promote resource sharing, transparency and accountability.
(iv) Improve security of data, information and ICT infrastructure in TNT.
(v) Promote innovation and adaptation to emerging technologies to improve service delivery.

2.3 SCOPE

This Policy applies to all National Treasury internal and external stakeholders interacting with ICT systems' operational environment.

2.4 POLICY PRINCIPLES

The Policy shall be guided by the following key principles:

(i) Seamless integration of ICT systems.
(ii) Adherence to international ICT standards and best practices.
(iii) Confidentiality, integrity and availability of data and information systems.
(iv) Transparency and accountability in service delivery.
(v) Continuous systems and business process improvements.
(vi) Adherence to best practices, policies and ethics.

3.0 INSTITUTIONAL, LEGAL AND REGULATORY FRAMEWORK

The National Treasury of Kenya, as established under the Constitution of Kenya in 2010, plays a crucial role in the governance and management of public finances within the country. Its authority is primarily derived from the Public Financial Management Act of 2012, along with its associated regulations. These legal frameworks underscore the importance of responsible and transparent management of public funds, ensuring that financial resources are utilized effectively and efficiently to meet the needs of the Kenyan populace.

Furthermore, the National Treasury acknowledges the significance of the National ICT Policy of 2019, which provides a strategic framework for the development and implementation of ICT initiatives across various sectors in Kenya. This policy, supported by other relevant laws, acts, regulations, and ICT standards, serves as a guiding principle for TNT in its efforts to harness technology for better financial management.

In light of these considerations, the National Treasury has taken proactive steps to formulate its own ICT Policy. This policy is designed to facilitate the seamless integration of ICT solutions into TNT operations, ensuring that the institution can effectively respond to the evolving demands of public financial management. By adopting a comprehensive ICT Policy, the National Treasury aims to enhance its operational capabilities, improve service delivery, and ultimately contribute to the broader goal of promoting transparency, accountability, and good governance in the management of public resources in Kenya.

4.0 POLICY IMPLEMENTATION

4.1 ICT Governance

This policy shall govern all ICT strategic decisions within the National Treasury to ensure that all ICT projects and initiatives deliver value.

4.2 ICT Infrastructure

TNT shall continuously adhere to existing ICT standards on installation, security, management, use and implementation of ICT infrastructure in all service delivery points/locations.

4.3 ICT Information Systems

TNT shall adhere to the existing ICT standards on the acquisition of appropriate software in terms of use, value for money, scalability, integration with existing and future systems.

4.4 ICT Service Management

TNT shall ensure availability of ICT services as provided for in the Operation Level Agreements (OLAs) and Service Charter through a centralized management unit responsible for support of all ICT services.

The ICT Department shall develop an Operational Level Agreement (OLA) stipulating its commitment specific to each process owner.

4.5 Data and Information Security

TNT shall secure its data and information against breaches and threats by preserving its Confidentiality, Integrity and Availability.

4.6 Business Continuity Plan

TNT shall develop and maintain an ICT Business Continuity Plan with Disaster Recovery Plan.

4.7 Cloud Computing Services

TNT's take-up on the use of Cloud Services shall be approved on a case by case in-line with existing government standards, policies and guidelines.

4.8 Electronic Waste (E-WASTE)

All obsolete and unserviceable ICT equipment shall be disposed of in accordance with relevant NEMA E-Waste Regulations and the relevant Public Procurement and Asset Disposal Act.

4.9 Data Management

Acquisition, dissemination, usage, maintenance, retention and disposal of data shall be in accordance with existing legal and regulatory framework.

4.10 Knowledge Management

ICT shall facilitate the knowledge management by providing the necessary digital tools for knowledge identification, acquisition, refinement, storage and sharing.

4.11 ICT Human capital training

ICT training shall be conducted to provide new ICT skills, bridge any ICT skills gaps and sharpen the existing ICT competencies according to existing national ICT standards.

4.12 Change management

Changes to configurations, systems, applications or equipment shall follow appropriate ICT management procedures to minimize adverse impacts of the changes to operations.

4.13 Emerging techs and innovation

TNT shall foster innovations to strengthen its capability to generate, transfer and apply emerging technologies and ensure sustainable utilization of resources.

5.0 MONITORING, EVALUATION AND REVIEW OF THE POLICY

5.1 Monitoring and Evaluation

Monitoring, evaluation and reporting framework of this policy will involve a systematic and continuous process of collecting and analyzing information based on the indicators, targets and provision of feedback. Monitoring the implementation of the policy will act as an early warning system to detect potential bottle necks and help to make adjustments where necessary.

Evaluation will involve a systematic and objective process of examining the relevance, effectiveness, efficiency and impact (both expected and unexpected) of this policy annually. Evaluation will be done through formal surveys and assessments. The ICT department shall: develop and implement a monitoring and evaluation plan; carry out annual evaluation on the implementation of the policy; define short, medium- and long-term interventions based on the outcomes of the monitoring and evaluation reports; and advise TNT on areas of improvement.

Ad hoc evaluation may be commissioned by the Principal Secretary in case of significant and unexplained variance in policy implementation. Such variances will be identified through regular quarterly and annual reports.

5.2 Policy Implication

This ICT policy aligns with existing laws, regulations and standards, such as the Constitution of Kenya (2010), Public Finance Management Act (2012), National ICT Policy (2019) among others. It will also establish guidelines for the use of ICT systems in public financial management, ensuring compliance with accounting standards and financial regulations.

Institutionally, this policy mandates the creation of a strategic ICT steering committee within the National Treasury to oversee ICT implementation and management. It also necessitates capacity building and continuous training for staff to effectively utilize ICT tools, thereby enhancing efficiency and transparency in public financial management.

The implementation of the ICT policy will occasion an estimated public expenditure of about Ksh.1,236 million as indicated in the annex I, spread across the policy implementation period, which shall form part of the expenditure of the National Treasury.

5.3 Policy Review

This policy shall be reviewed after 5 years or as need arises to ensure that it remains relevant to changing legal and regulatory framework including emerging issues and trends.

6.0 ANNEXURES

Annex I: Policy Implementation Matrix

Priority Area	Expected Outcome(s)	Expected Output(s)	Output Indicator(s)	Budget (Kshs - Million)	Time Frame	Actor(s)
Public Service Delivery	Enhanced Service Delivery	Customers accessing the PFM systems	System logs No. of automated business processes	-	5 years	ICT Department
ICT Infrastructure	Modernized secure ICT infrastructure in place	Modern data center	No. of modern cooling units, servers, UPSs installed	45	5 years	ICT Department Procurement Department Finance Department
		Integrated information systems	No. of systems integrated	50	5 years	ICT Department
		Modern end user devices	No. of modern end user devices installed	275	5 years	ICT Department Procurement Department Finance Department
		Modern network	No. of modern network management tools installed	630	5 years	ICT Department Procurement Department Finance Department
Skills and innovation	Skilled and innovative workforce	Trained officers	No. of officers trained	60	5 years	ICT Department Human Resource Department
		Sensitized officers	No. of officers sensitized	8	5 years	ICT Department

Priority Area	Expected Outcome(s)	Expected Output(s)	Output Indicator(s)	Budget (Kshs - Million)	Time Frame	Actor(s)
						Human Resource Department
		Homegrown ICT solutions	No. of homegrown ICT solutions	105	5 years	ICT Department
			No. of business processes re-engineered	63	5 years	TNT