

STRATEGIC PLAN 2018 - 2023

Mission

Building a connected society through enabling regulation, partnership and innovation

Vision

A Digitally Transformed Nation

Core Values

The core values are the basis upon which the Board, Management and Staff of CA act, make decisions, plan and strategizes. They are also a reflection of how the staff will interact with each other and with CA's stakeholders and clients. The Authority's core values are:

- 1) Integrity adhering to corporate and moral values, acting with honesty and fairness, and treating all internal and external stakeholders with respect and within the law:
- **2)** Innovation being original, flexible and more effective in creating value and growth in the market and society;
- **3) Excellence -** continuously improving and providing high quality attention to the needs of both the internal and external stakeholders.

Brand Promise

Opening Your World



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Acronyms and Abbreviations

BPRA	Business Process Re-Engineering and Automation
CA	Communications Authority of Kenya
CCK	Communications Commission of Kenya
CFTA	Continental Free Trade Area
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
EMF	Electro-Magnetic Frequency
ERS-WEC	Economic Recovery Strategy for Wealth and Employment Creation
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IoT	Internet of Things
IPTV	Internet Protocol Television
ITU	International Telecommunications Union
IFMIS	Integrated Financial Management Information System
KICA	Kenya Information and Communications Act
KPI	Key Performance Indicators
KPTC	Kenya Posts and Telecommunications Corporation
KRAs	Key Result Areas
LAN	Local Area Network
MNO	Mobile Network Operators
MoU	Memorandum of Understanding
MTP	Medium Term Plan
NAS	National Addressing System
NOFBI	National Optic Fiber Backbone Infrastructure
ONA	One Area Network
OTT	Over-the-Top
PESTEL	Political, Economic, Social, Technology, Environment and Legal
PLWD	People Living With Disability
QoS	Quality of Service
RBM	Results Based Management
R&D	Research and Development
SDGs	Sustainable Development Goals
SME	Small and Micro Enterprises Strengths, Weaknesses, Opportunities and Threats
SWOT	Universal Service Fund
USAC	Universal Service Advisory Council
	First Medium Term Plan
MTP I	Second Medium Term Plan
MTP II	
MTP III	Third Medium Term Plan

CHAIRMAN'S MESSAGE



On behalf of the Board of Directors, Management and Staff of the Communications Authority of Kenya (CA), I am happy to present the Authority's fourth Strategic Plan for the period 2018 - 2023.

This Strategic Plan is fully aligned to Kenya's Vision 2030, which considers ICT as a key foundation and enabler for other sectors. It is also in tandem with the Big 4 Agenda which focuses on increasing manufacturing sector; achieving food and nutrition security for all; achieving 100 per cent universal health coverage; and provision of affordable and decent housing for all Kenyans; by leveraging on the ICT as an enabler for the achievement these targets.

We refined our Vision and Mission to align them with the aspirations of Vision 2030 and Big Four Agenda. The Authority has done considerable self-reflection and carried out an analysis of the external environment to

identify measures that will help us overcome the current and future challenges identified. We have the determination to remain true to our mission, through measures and priorities set out in this plan.

Key amongst these priorities is to ensure universal access to ICT services by the citizens in Kenya, competitive and efficient markets in the ICT sector, enhanced online security and adequate institutional capacity to serve our stakeholders well.

Successful implementation of this plan calls for internal transformation in order to enhance efficiency, effectiveness and greater client orientation. Through our values of integrity, excellence and innovation, we have the foundation that will help us align ourselves to the new strategy.

I have every confidence that we will not only deliver on this plan but we will also make a positive contribution to Kenya's economy. As a Board, we offer our full commitment to the implementation of this Strategic Plan and invite all stakeholders to join hands in this endeavour.

Together, we can realize our vision of having a 'Digitally Transformed Nation'.

Ngene B. Gituku, EBS
CHAIRMAN, BOARD OF DIRECTORS

DIRECTOR GENERAL'S FOREWORD



This Strategic Plan is the culmination of an extensive consultation process both internally and externally with other key stakeholders.

The involvement of our stakeholders has resulted in more clarity of the Authority's role as encapsulated in the refined mission, vision and Key Result Areas (KRAs). In the fulfillment of our core mandate of facilitating access to communications services, the Authority will work with all stakeholders to ensure their involvement. Our ultimate aim is to catalyse the transformation of Kenya's socioeconomic landscape and contribute to broad-based improvements in the quality of life for Kenyans.

This Strategic Plan is the culmination of an extensive consultation process both internally and externally with other key stakeholders. The involvement of our stakeholders has resulted in more clarity of the Authority's role as encapsulated in the refined mission, vision and Key Result Areas (KRAs).

In the fulfillment of our core mandate of facilitating access to communications services, the Authority will work with all stakeholders to ensure their involvement. Our ultimate aim is to catalyse the transformation of Kenya's socio-economic landscape and contribute to broad-based improvements in the quality of life for Kenyans.

This Strategic Plan identifies three KRAs, which will be the basis of holding us to account in line with the Government's strategy for institutionalizing Results Based Management (RBM). They include: Access and Market Development; Enabling Environment; and Capacity Development. Our day-to-day performance will be linked these KRAs, which are broken down into strategic objectives, outcome indicators and targets to be achieved by the year 2023.

The process we went through in preparing this strategic plan ensured that there is a common understanding, ownership and commitment to its implementation.

I therefore reiterate my commitment to remain the primary custodian and driver of the implementation process. I recognize my duty to keep everybody focused on the expected results, even within the changing environment.

Mrs. Mercy Wanjau

ACTING DIRECTOR GENERAL

PREAMBLE

In recognition of the Information and Communications Technology (ICT) sector as a key enabler of all other sectors and one of the foundations of Vision 2030, the Communications Authority of Kenya (hereinafter referred to as the "Authority" or "CA") is committed to supporting the realization of Vision 2030 that aims to create "a globally competitive and prosperous country with a high quality of life by 2030". The Authority will facilitate rapid growth of the ICT sector and support the realization of the Government's Big 4 Agenda by fast-tracking ICT related regulatory and universal access initiatives towards attainment of access to universal health services; the growth of the manufacturing sector; access to affordable housing, and the achievement of food and nutrition security for all.

In the next five (5) years the Authority will:

- 1. Ensure the achievement of universal access to ICT services by the citizens, institutions and businesses in Kenya.
- 2. Develop and implement forward-looking regulation to foster competitive and efficient markets in ICT sector.
- 3. Enhance online security including reducing cybercrime.
- 4. Develop institutional capacity to serve its stakeholders ably and well.

To achieve the objectives listed above and more, the Authority has developed this Strategic Plan for the period 2018-2023. The Strategic Plan, whose vision is to digitally transform our nation, has three Key Result Areas (KRA), eight strategic objectives, and 14 strategic initiatives that are founded on the core values of integrity, innovation and excellence. The Strategic Plan guides the Authority as it embarks on a mission to build a connected society through enabling regulation, partnership and innovation, in pursuit of fulfilment of its brand promise, 'opening your world'.

A high level summary showing the conceptual framework upon which this strategic plan is built is shown in Figure 1.

Figure 1: A Summary of the Strategic Plan 2018 - 2023



VISION

A Digitally Transformed Nation

MISSION **BRAND PROMISE** Building a Connected Society through Enabling Opening Your World Regulation, Partnership and Innovation Key Result 1. Access and Market Development 2. Enabling Environment 3. Capacity Development Areas 1.1 Achieve Universal Access to 3.1 Attain High institutional 2.1 Ensure Appropriate Regulatory **ICT Services** Environment Capacity and Performance Excellence 1.2 Ensure Efficient ICT Markets 2.2 Enhance Stakeholder 3.2 Embrace a Research and Engagement and 1.3 Ensure Sustainable Develop Communication Innovation Culture ment of the ICT 3.3 Enhance Partnership and Collaboration 1.1.1 Implement universal access 2.1.1 Develop a responsive legal, 3.1.1 Implement BPRA programmes regulatory and licensing 3.1.2 Develop human capacity 1.2.1 Foster competition in the ICT sector 2.2.1 Develop and implement an 3.1.3 Enhance performance integrated stakeholder enmanagement and 1.2.2 Drive appropriate degagement, capacity building operational excellence ployment of infrastructure and communication strategy and services 3.1.4 Upgrade technologies and 2.3.1 Develop partnerships, tools 1.3.1 Manage ICT regulatory collaborations and linkages resources 3.2.1 Establish R&D capacity and programmes 1.3.2 Promote green ICT environment 1.3.3 Upgrade national cyber security capabilities

Excellence

Innovation

Values

Integrity

INTRODUCTION

1.1 Introduction

This is the Authority's fourth Strategic Plan and will guide execution of its mandate and implementation of programmes for the period 2018-2023. The Plan is aligned to the United Nations (UN) 2030 Agenda for Sustainable Development Goals (SDGs), the Africa's Agenda 2063, the Government's Vision 2030 development strategy, the third Medium Term Plan (MTP III) and the Big 4 initiatives that focus on food and nutrition security, manufacturing, affordable housing and universal health coverage.

The Strategic Plan builds on CA's achievements during the implementation of its third strategic plan of 2013- 2018 that was aligned to MTP II of Vision 2030; the second strategic plan 2008 -2013 that was guided by MTP I, and the first strategic plan 2005-2008 that was implemented under the Government's Economic Recovery Strategy for Wealth and Employment Creation. (ERS- WEC)

This Strategic Plan will enable the Authority to deepen its focus in facilitating the growth of the ICT sector. The plan incorporates inputs from both internal and external stakeholders specifically their feedback on the performance of the Authority and their expectations of the CA in fulfilling its constitutional, legal and regulatory mandate.

1.2 Background

The Communications Authority of Kenya (then known as the Communications Commission of Kenya) was established as the national regulatory authority for the ICT sector in 1999 under the Kenya Information and Communications Act (KICA),1998. The regulator was created following strategic reforms of the telecommunications sector in 1998/99 that culminated in the separation of sector management roles of policy and regulation, and the liberalization of the telecommunications business functions previously undertaken by Kenya Posts and Telecommunications Corporation (KPTC).

The mandate of the Authority, as defined in the Act, is to facilitate "the development of the information and communications sector . . .

The role and mandate of the CA was expanded under KICA, Cap 411A of 2009, which has since been revised in 2013 and 2015. The KICA (Amendment) 2013 ensured the alignment of the Act to the Constitution of Kenya 2010 and provided for the independence of the then Commission leading to the change of its name to Communications Authority of Kenya.

The mandate of the Authority, as defined in the Act, is to facilitate "the development of the information and communications sector, (including broadcasting, multimedia, telecommunications, postal services), and electronic commerce."

1.3 Role and Functions of Communications Authority of Kenya

In fulfilling its mandate, the Authority performs the following functions:

- Licensing of all systems and services in the communications industry, including telecommunications, postal, courier and broadcasting;
- Managing the country's frequency spectrum and numbering resources;
- Facilitating the development and management of e-commerce and a National cyber security framework.;
- Type approving and accepting communications equipment meant for use in the country;
- Protecting consumer rights within the communications environment;
- Managing competition within the sector to ensure a level playing field for all players;
- Regulating retail and wholesale tariffs for communications services;
- Managing the universal access fund to facilitate access to communications services by all in Kenya; and
- Monitoring the activities of licensees to enforce compliance with the license terms and conditions as well as the law.

1.4 Methodology

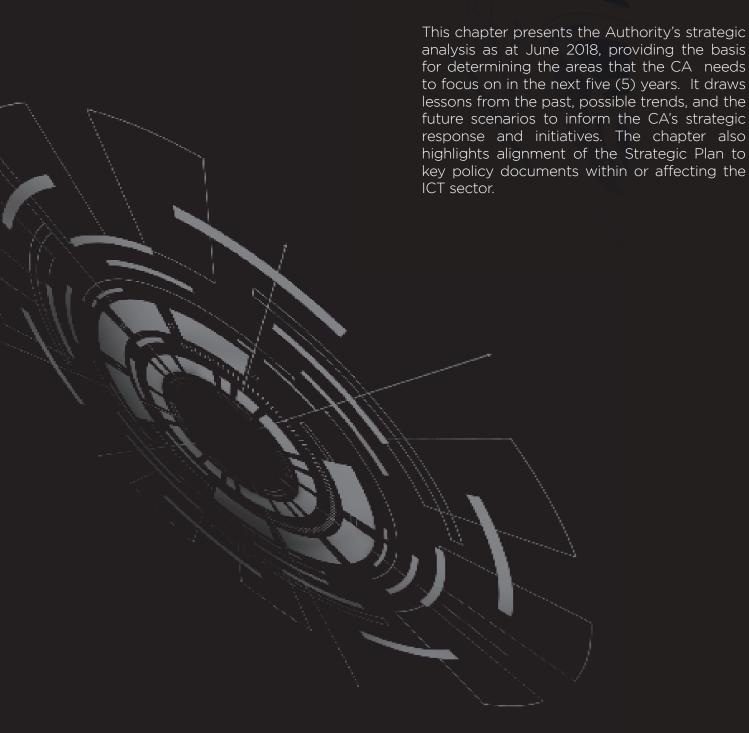
The development of this Strategic Plan involved a participatory approach, allowing for inputs from both internal and external stakeholders. The development process involved review of key internal and external documents, desktop research on ICT trends, interviews and group discussions with internal stakeholders (the CA Management, Staff, members of the Board and the Universal Service Advisory Council (USAC), and external stakeholders. Upon initial formulation, the draft Strategic Plan was subjected to Management brainstorming, and review and validation by the CA Board/USAC.

1.5 Organization of the Strategic Plan

This strategic plan is arranged in four chapters:

- Chapter 1: Introduction provides a brief about the foundations and purpose of the strategic plan, with a background on the Authority.
- Chapter 2: Strategic Analysis covers the objectives of the CA, key achievements and lessons learnt during the implementation of the third strategic plan.
- Chapter 3: KRAs and Strategic Directions presents KRAs and the strategic objectives and initiatives that will drive CA's business from 2018 to 2023 and beyond.

STRATEGIC ANALYSIS



STRATEGIC ANALYSIS

2.1 Information and Communications Technology Sector Performance 2013-2018

2.1.1 SECTOR SPECIFIC PERFORMANCE

The ICT sector registered an average annual growth rate of 11 per cent (Economic Survey 2018) during the period, making it one of the fastest and most attractive sectors of the Kenyan economy. The sector's contribution to the Gross Domestic Product (GDP) in terms of volume grew from KES 204 billion in 2012 to KES 345.1 billion in 2017. Nairobi is rated the most intelligent city in Africa, with ICT developments contributing to the improvements in the World Bank's Ease of Doing Business index from 129 to 80 in 2017.

The government has extended the National Optic Fiber Backbone Infrastructure (NOFBI) by 2,100 km to 6,400 km . . .

Additionally, at the national level, the government has extended the National Optic Fiber Backbone Infrastructure (NOFBI) by 2,100 km to 6,400 km linking all county Headquarters (HQs) with fiber. This has supported the rollout of Integrated Financial Management Information System (IFMIS) to all counties.

2.1.2 INSTITUTIONAL SPECIFIC PERFORMANCE

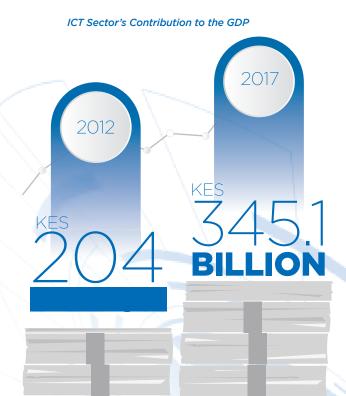
The ICT sector posted tremendous progress during the period June 2013 to June 2018, with mobile phone subscriptions increasing from 30.5 million to 45.6 million - a 45.9 per cent increase. As a result, mobile penetration improved from 77.3 per cent to 97.8 per cent during the period, surpassing both the CA's 90 per cent and the MTP II 82 per cent target. Internet subscriptions grew from 12.4 million to 41.2 million while broadband subscriptions increased from 1.39 million to 20.5 million, a growth mainly driven by expansion of mobile telephony networks and Subsequently, wireless broadband penetration stood at 43.9 per cent at the end of the June 2018, substantially exceeding the CA's target of 10 per cent. Consumers benefitted from development of mobile broadband, lowering of telephony interconnection costs, and the establishment of the One Network Area (ONA) with Rwanda, Uganda and South Sudan. During the period, the fourth generation (4G) of broadband cellular network technology was rolled out in Nairobi, Mombasa, Kisumu and other towns along the major highways.

The use of mobile money services significantly increased, resulting in enhanced financial inclusion in the country. Mobile money subscriptions increased from 24.8 million to 29.6 million representing a 19.4 per cent increase. Mobile money agents increased from 74,216 to 206,940 - a growth of 178.8 per cent - creating new jobs in the Small and Micro Enterprises (SME) sector. The value of quarterly mobile money transfers increased from Ksh 453 billion recorded during the quarter ending June 2013 to KSh 1.919 trillion during the quarter ending June 2018 with a total of Ksh 675.5 billion being moved from person to person.

the broadcasting sub-sector. In notable milestones included 100 percent digital Television (TV) migration by 15th of June 2015, with significant improvements in signal quality and choice for the consumer. During the period, two digital TV signal distributors were established and there was a 378.6 per cent increase in the number of TV channels - from 14 analogue (with only 13 being active) to 67 digital TV platforms. The digital terrestrial TV signal population coverage increased from 60 per cent in 2015 to 85.8 per cent, again exceeding the CA's target of 80 percent. The successful migration resulted in the release of digital frequencies previously used by analogue TV for other uses. On the other hand, the number of FM radio stations increased by 65.6 per cent, from 102 radio stations available in 2013 to 169 available as at end of June 2018.

In order to spur further growth in the broadcasting sub-sector, the Authority established a broadcasting Programming Code and commenced implementation of annual KUZA awards to motivate broadcasters to strive for quality services as well as promote compliance with the regulatory requirements.

During this period, the Authority embarked on implementation of projects/programmes under the Universal Service Fund (USF) which included transformation of 56 libraries into e-resource centers by equipping them with Local Area Network (LAN), computer hardware, software and furniture; commencement of connection of 882 public secondary schools to broadband services; and commencement of roll-out of basic voice infrastructure in 78 un-served and under-



served sub-locations. Finalization phase one of the projects and implementation of subsequent phases are provided during this planning period. The Authority allocated and efficiently managed utilization of spectrum resources through monitoring and resolving interference and enforced quality of service on licensees.

In a bid to combat cybercrime the Authority in liaison with other Government agencies, established a multi-agency cyber-security monitoring and response centre, the National Kenya Computer Incident Response Team/Coordination Centre (National KE-CIRT/CC) that operates on a 24 - hour basis to enhance online security. Moreover, the CA has continually secured mobile communications and protected consumers by enforcing the Subscriber Identity Module (SIM) card registration regulations, broadcasting Programming Code, and various license conditions aimed at improved quality of services by licensees.

The Authority extended its footprints outside the Nairobi headquarters by establishing four regional offices in Eldoret, Kisumu, Nyeri and Mombasa. This has expanded regional presence and improved service delivery at the County levels.

2.2 Strategic Position of Communications Authority of Kenya

The liberalization of Kenya's telecommunications sector in 1999 and emergence of ICT sector as a catalyst and enabler of economic growth positioned the Authority at the heart of Kenya's development process. The Authority is a key player in the transformation the lives through expanded access to ICT services by all in Kenya and has facilitated the development of a vibrant, competitive and diverse ICT sector. The transformative impact of ICT sector has positioned the country as one of Africa's emerging knowledge economies and become a key selling point to investors.

During the past two decades, the Authority has strengthened foundations for expanded and quality telecommunications and postal services, reduced cost of interconnectivity across the mobile service networks, and enhanced the quality of public content disseminated by broadcast service providers.

In addition, the Authority has been credited with reducing the cost of communication, with Kenya ranked the second in Africa after South Africa. Through the Authority, Kenya has implemented an automated mail quality measurement system, effectively becoming the first country in Africa to use the tool for regulatory purposes. Regionally, the CA is in the forefront in the harmonization of ICT policy and regulatory frameworks in positioning East Africa as a single investment market, and catalyzing the realization of the region's ultimate goal of political and monetary integration.

2.3 Impact of Technological Change on the Communications Authority of Kenya

The ICTs have revolutionized information and communication, enabled participation in the global economy and efficient deployment of online services both in the public and private sectors. It was estimated that by 2017, threequarters of all global Internet use was via mobile phone and much of that growth was in low and middle-income countries (Global ICT Regulatory Outlook, 2017, International Telecommunication Union (ITU)). This is well exhibited by the online deployment of financial solutions enabling financial inclusion to the hitherto excluded population groups. The rapid rate of technological development, business innovation and changes in social attitudes continue to push information and communication to unprecedented and innovative directions.

Over the last decade, Kenya has recorded increased digitization of various ICT services. These include broadcasting, Internet access, telecommunications, e-commerce and to a lesser extent, the postal and courier services. This widespread technological dissemination creates new opportunities across all segments of the society, but also presents new challenges that require new strategies to address. With the delivery of most public and private sector services becoming increasingly online, there is need to redefine the concept of "basic services" that must now include access to the

The ICTs have revolutionized information and communication, enabled participation in the global economy and efficient deployment of online services . . .

Internet through broadband connectivity. The implementation of mobile broadband Internet through 4G and 5G technologies will present significant opportunity for the deployment of a whole range of Internet enabled services including e-commerce, but also present challenges on the use of the frequency spectrum and cyberecurity. Technological innovations such as Internet Protocol Television (IPTV), an Internet-based technology for broadcasting TV, are likely to disrupt the regulatory regime.

The next ICT frontier of Internet of Things (IoT), big data analytics, artificial intelligence (AI) and Over-the-Top (OTT) services present great opportunities but also regulatory challenges that may require a whole new approach. These new and innovative developments in ICTs increasingly require high bandwidth over stable networks that allow high-speed communications and efficient services, while ensuring appropriate safeguards for data, people and their assets and peoples' right to privacy.

The Authority will continue to play a critical leadership role in shaping the future of the information and communications landscape, by facilitating innovation and creating certainty which will translate to more opportunities for open collaboration, innovation, economic growth and better lives for citizens.

2.4 Role of Information and Communications Technology Sector in Socio-Economic Development

The ICT sector plays a major role in socioeconomic and cultural development of a country. ICT is a key enabler in the realization of Kenya Vision 2030, Sustainable Development Goals (SDGs), African Union Agenda 2063, and East African Community (EAC) Vision 2050. Under the AU's agenda 2063, ICT is expected to play a major role in generating public awareness, involvement, support and ownership. The UN Agenda 2030 on SDGs includes 17 global goals and a number of targets whose achievement is directly or indirectly related to the level of access to ICT services.

ICT enables EAC Vision 2050 which relies on a more integrated market to stimulate the productive capacity, positively impact on other sectors such as infrastructure development and industrialization through value addition in the demand and supply chains. Additionally, ICT aids achievement of Vision 2030 as a key enabler of Kenya's socio-economic development. The MTPs of the Vision have consistently set aggressive ICT targets for improving telecommunications infrastructure and access to ICT services countrywide. illustrate the importance of ICT in achievement of the vision, the theme of the third medium term plan (MTP III 2018-2022) is "Leveraging ICTs for Competitiveness".

The rapid increase in the number of players engaged in ICT services and the volume of business transacted has positioned Kenya as one of the leading countries in Africa in technology and innovation. The ICT has also become the most important enabler of public service delivery at national and County levels, enterprise growth and innovative financial services. It has stimulated opportunities for micro, small and medium enterprises (MSMEs) and enhanced the competitiveness of Kenya's private sector, strengthening the role of the private sector as the engine of economic growth and social equity.

ICT is a key enabler in the realization of Kenya Vision 2030 . . .

2.5 Future of Information and Communications Technology Sector

The consumer of the future will be a smart, global citizen highly exposed to global possibilities with significantly increased choice. Consumers in future will demand high and always on-the-go bandwidth and will have more power and more demands requiring not only better and innovative services and products, but also greater attention to customer care and support. They will demand sufficient information and reliable services available online, anywhere, anytime, whether from the public, the private sector or other non-state actors.

The industry will experience rapidly evolving technology and services, driven by innovation and resulting in competing services.

This trend will continue towards technology convergence and neutrality with multiplicity of services provided through the Internet. Provision of quality and secure services and content, coupled with increased customer focus, will be most important for business success and survival. The future will experience significant changes in the face of business with emerging business models with multiplicity of actors who will include small and micro enterprises effectively competing for space. In future, there is a likelihood of reduction of barriers to entry with enterprises offering services using much less capital and infrastructure, as the youthful and innovative minds become most critical in the process of value creation. Therefore, availability of high-speed reliable broadband Internet access will be increasingly critical for both the business and the consumer. Increasing technology and service convergence will require flexible and combined licensing regime.

2.6 Key Improvement Areas

Based on the situation analysis and stakeholder perceptions, a range of opportunities exist for the CA to deepen the enabling environment for further growth of ICT sector in the next five (5) years. The Authority will focus on enhancing ICT market competition, addressing negative perception and publicity, deeper constructive engagement with stakeholders and focus on improving inefficient processes.

2.6.1 Market Competition

Uncompetitive markets are harmful not only to ICT sector but to the growth of the entire economy. A recent market competition study undertaken by the Authority has underlined some of the key areas that need to be addressed to ensure stronger competition, without compromising the organic growth of the leading operators. This is critical to ensure protection of consumer choices and price competitiveness, particularly in telephony and mobile money transactions. A more competitive market will support the Government's agenda of inclusivity and deepening financial inclusion.

2.6.2 Adverse Perception and Publicity

Earning and maintaining a good reputation is a critical factor of success in regulatory affairs. The Authority will keenly monitor and manage public perception. During implementation of its Strategic Plan 2013-2018, some critical activities implemented caused negative publicity that questioned the role of the Authority as an industry facilitator. Adverse public perception of the CA's role, as those witnessed during the analogue-to-digital TV migration period, the registration of mobile phone SIM cards and switch-off of counterfeit phones, will be addressed thorough strategic communications

to improve public information about the role and activities of the Authority. The CA will proactively enhance its public and stakeholder engagement on emerging issues so as to ensure stakeholder participation and avert negative perception and publicity.

2.6.3 Engagement with Government and Key Stakeholders

Implementation of the previous strategic plan activities pointed to less than optimal engagement and effective relationship with key government ministries, departments and agencies as well as other key actors outside the CA. This led to weak synergies and slow implementation of universal access to ICT services initiatives and achievement of key objectives. There are also missed opportunities for synergetic parnerships, collaborations and linkages, for example, in research and development (R&D). To address this, the Authority will bring on board relevant stakeholders in the planning phases of its various initiatives and develop an integrated stakeholder engagement strategy.

2.6.4 Optimal Customer Processes

Some of the Authority's customer processes, such as repetitive manual forms, are inefficient and slow down service delivery. In some instances, customers were asked to present the same information to the same department at different times or different departments at the same time. The Authority will improve on this by implementing a Business Process Re-engineering and Automation (BPRA) which will enable more optimized and efficient service delivery process and greatly improve customer satisfaction.

The youthful and innovative minds become most critical in the process of value creation . . .

2.7 National and International Policies and Strategies

The following are key national and international policies and strategies relevant to this Strategic Plan: Constitution of Kenya 2010; Vision 2030 and MTP III; the Big 4 Agenda; ICT policy 2006; National Broadband Strategy 2013; Cybersecurity Strategy 2014; Computer Misuse and Cybercrimes Act, 2018; ITU Connect 2020; and the Istanbul World postal Strategy 2017 - 2020.

2.7.1 Constitution of Kenya 2010

The Constitution of Kenya 2010 bestows extensive rights to citizens under Chapter 4 - Bill of Rights. As access to services (government, financial, health, education, and agriculture), becomes increasingly online, lack of or inadequate access to ICT services will directly hamper access to these services by some segments of the population. Such will be interpreted as denial of citizen rights under the Constitution. Specific articles to pay attention to include: Article: 27 - equality and freedom from discrimination; Article: 31 - right to privacy: Article: 34 - freedom of the media: Article: 35 - right of access to information; Article: 42 - right to a clean and healthy environment; and Article: 43 - economic and social rights. Article 42 is also increasingly relevant as the burden of e-waste becomes more pronounced.

2.7.2 Kenya Vision 2030 and Third Medium Term Plan 2018-2022.

This Strategic Plan is fully aligned to the Kenya Vision 2030 and the MTP III on the implementation of the Vision. Vision 2030 considers ICT as a key foundation and enabler for all the other sectors. The MTP III relevant targets for the CA are provided in Table 1.

2.7.3 Big Four Agenda

The Big 4 Agenda focuses on increasing manufacturing sector share of GDP from 9 per cent to 15 per cent, achieving food and nutrition security for all, achieving 100 per cent universal health coverage and provision of affordable and decent housing for all Kenyans (specifically delivering 500,000 affordable houses) by 2022. The ICT is an enabler for the achievement of the Big 4.

2.7.4 Information and Communications Technology Policy

The vision of the policy is "a prosperous ICT-driven Kenyan society" and the mission is "to improve the livelihoods of Kenyans by ensuring the availability of accessible, efficient, reliable, affordable, quality and secure ICT services." Strategies focus on ICT infrastructure, e-commerce, e-government, e-learning, e-health, local content, financial innovations, Information Technology (IT) standards, Human Resource (HR) development and environmental

issues. The policy which is currently under review, expects the Authority to adopt and implement the highest standards of procedural efficiency, transparency and responsiveness to technological changes.

2.7.5 National Broadband Strategy

The strategy provides a roadmap towards the realization of a connected and knowledge-based economy. The vision is "to transform Kenya into a knowledge-based society driven by a high national nationwide broadband network". The overall objective is "to provide quality broadband services to all citizens." The broadband definition for connectivity for Kenya for the period 2013 to 2017 was "connectivity that is always on, and that delivers a minimum of 5 Mbps to individuals, homes and businesses for high speed access to voice, data and applications." Broadband speed targets to the year 2030 are shown in Table 2.

According to the strategy, broadband is the platform for a developed Kenya. A Kenya that registers rapid economic growth and innovation and enables healthcare, education, employment and Government service delivery. The Government is to initially focus on the supply side promotion of broadband development and facilitate an enabling environment to allow optimum market growth of broadband services by leveraging private sector investment

in critical infrastructure. In the later stages, the focus will be on universalization and ensuring that broadband is accessible and widely used.

Table 1: Targets in Third Medium Term Plan III Relevant Targets for CA

Indicators	Baseline 2017	Mid Term Projection 2020	End Term Projection 2023
Country covered by digital terrestrial television broadcasting signal (percent)	80	90	100
National broadband coverage rate (percent)	10	50	100
Population accessing ICT services (percent)	60	80	100
Secondary schools and tertiary institutions connected with fiber optic broadband connectivity in un- served and under- served areas (no.)	500	700	896
Un-served and Under- served areas-sub- locations covered by basic voice infrastructure second generation (2G) network connectivity (%)	348	147	0

Table 2: Broadband Targets for National Broadband Strategy (in Mbps)

Area	2013 - 2017	2018 - 2022	2023 - 2027	2028 - 2030
Urban	40	300	1,024	2,048
Rural	5	50	100	500

The overall objective is "to provide quality broadband services to all citizens."

2.7.6 Cyber-security Strategy 2014

The strategy was developed in response to the rapid development of ICT and the increasing cyber threats. It has four strategic goals, which are to:

- Enhance the nation's cyber-security posture in a manner that facilitates the country's growth, safety, and prosperity;
- Build national capability by raising cybersecurity awareness and developing Kenya's workforce to address cyber-security needs;
- Foster information sharing and collaboration among relevant stakeholders to facilitate the achievement of the strategy's goals and objectives; and,
- Provide national leadership by defining the national cyber-security vision, goals, and objectives and coordinating cyber-security initiatives at the national level.

2.7.7 Computer Misuse and Cybercrimes Act, 2018

This is an Act of Parliament that provides for offences relating to computer systems, to enable timely and effective detection, prohibition, prevention, response, investigation and prosecution of computer and cybercrimes and to facilitate international cooperation in dealing with computer and cybercrime matters.

2.7.8 International Telecommunication Union Connect 2020

The global agenda for ICT sector adopted in 2014 under ITU, sets out the shared vision, goals and targets that member states have committed to achieve by 2020. The shared vision is "an information society, empowered interconnected world. telecommunications/ICT enables and accelerates socially, economically and environmentally sustainable growth and development for everyone". The goals include growth - enable and foster access to and increased use of telecommunications/ICT, inclusiveness - bridge the digital divide and provide broadband for all, sustainability - manage the challenges resulting from telecommunication/ICT development (including cyber threats, e-waste and greenhouse gas emissions) and innovation and partnership - lead, improve and adapt to the changing telecommunications/ICT environment.

The vision is to collectively build a postal world where innovation is shared, promoted and driven . . .

2.7.9 Global Agenda 2030 for Sustainable Development

The United Nations Global Agenda 2030 sustainable development. adopted in September 2015, seeks to strengthen universal peace in a larger freedom by addressing the global challenges such as eradicating poverty in all its forms and dimensions. The transformation of the world will be founded on 17 SDGs and 169 targets. which build on the Millennium Development Goals. The ITU has identified the enormous potential that ICTs have to fast forward progress on the implementation of the SDGs and improve people's lives, especially through achievement of SDG 9 (Industry, Innovation, and Infrastructure). Making modern ICTs more widely available, accompanied by adoption of the next generation of ICT infrastructure will foster innovation needed to spur domestic economic growth, provide health services, education, food and security, decent work, and reduce inequalities. SDG 17 (Finance, Technology, Capacity Building and Trade) also emphasizes access to and use of ICTs as well as related innovations in promoting inclusion in developing countries.

2.7.10 Istanbul World Postal Strategy 2017 - 2020

The vision is to collectively build a postal world where innovation is shared, promoted and driven - not as a luxury, but as a reality for all, full integration of networks at the national, regional and global levels is no longer an objective but a reality and the postal sector's unique ability to include populations, economic actors and territories is fully recognized and exploited by governments, development partners and international organizations. The three goals include: to improve the interoperability of network infrastructure, ensure sustainable and modern products, and foster market and sector functioning.

The priority areas identified in the strategy are strengthening operational efficiency and efficacy of the sector as well as the development of e-commerce which requires an efficient National Addressing System.

2.8 Challenges and Threats

Challenges and threats that the Authority needs to be aware of and address include:

- External interference in CA's Management and operations
- High national expectations placed on the role of ICT in national development;
- Dynamism of the ICT sector with regards to disruptive technologies such as OTT services, a highly educated and ICT literate, youthful and demanding population;
- Inability to access under-served and un-served areas due to poor infrastructure and disperse populations' impeding implementation of the universal service obligations;
- Inadequate ICT infrastructure protection in law (not yet deemed critical);
- Overlapping mandates of the CA and other Government players in the ICT sector;
- Increasing cyber-security threats;
- Increasing burden of e-waste to the environment; and
- Insecurity in the marginalized areas posing challenges in roll out of key ICT infrastructure and destruction of existing infrastructure.

2.9 Opportunities

There are significant opportunities available for the Authority during the implementation period. The opportunities include:

- A clear and predictable political and policy environment with key policies such as the Vision 2030, the MTP III and the Big 4 Agenda considering ICT as a critical enabler.
- A rapidly developing and innovating ICT sector as well as a highly educated, ICT literate, youthful and demanding population.
- Regional integration (EAC, Common Market for Eastern and Southern Africa (COMESA), Continental Free Trade Area (CFTA)), which requires ICT as one of its most critical enablers through online trade and services.
- Growth of e-commerce will require solid capacity to regulate and enhance cyber security to make Kenya a regional hub for e-commerce.

- ICT Infrastructure the CA is in a good position to provide leadership for crafting appropriate frameworks for the proper development and management of ICT infrastructure.
- Exploit synergies key Government Ministries (ICT, education, health, roads, energy, security) and County Governments to achieve universal access obligations.
- There is a niche for advocacy and providing support for research and background work for the development and enactment of the necessary policy, legal, regulatory and institutional frameworks.
- Current BPRA is a great opportunity to improve internal processes and ensure that all customer processes are online including payment systems.
- R&D capacity there is overwhelming consensus from both internal and external stakeholders on the need to enhance R&D capacity through collaboration with local universities and researchers to ensure that the CA is ahead and reasonably informed about developments in the industry it regulates.
- Optimizing use of spectrum and other scarce resources - through infrastructure sharing as well as utilization of white spaces.
- Building relationships and collaborations with key stakeholders including the MDAs, local, regional and international agencies, industry players as well as universities; and
- The CA has valuable assets in land, housing and other resources, which can be exploited to increase the Authority's revenue base but within its core mandate.

KEY RESULT AREAS AND STRATEGIC DIRECTION

This Chapter presents the strategic directions for the Authority for the period 2018-2023. These include CA's vision, mission, core values, brand promise, Key Result Areas (KRAs), strategic objectives, and strategic initiatives to be undertaken during the period. Further, the chapter provides for the strategic guidance and direction necessary for the Authority to effectively carry out its mandate. This is the basis upon which plans, strategies and projects will be formulated, decisions made and actions carried out, and performance managed and evaluated. The core values will guide performance, internal and external relationships and value addition in the Authority's deliverables.

KEY RESULT AREAS AND STRATEGIC DIRECTION

3.1 Vision, Mission, Core Values and Brand Promise

VISION

A Digitally Transformed Nation

MISSION

Building a connected society through enabling regulation, partnership and innovation

BRAND PROMISE

Opening Your World

As customers aspire for greater value and quality services, the Authority will work towards understanding these desires and facilitate the industry to innovatively adopt new technologies allowing for access to commensurate value products and services.

CORE VALUES

The core values are the basis upon which the Board, Management and Staff of CA act, make decisions, plan and strategize. They are also a reflection of how the staff will interact with each other and with CA's stakeholders and clients. The core values of the CA are:

- 1. **Integrity** adhering to corporate and moral values, acting with honesty and fairness, and treating all internal and external stakeholders with respect and within the law;
- **2. Innovation** being original, flexible and more effective in creating value and growth in the market and society:
- **3. Excellence** continuously improving and providing high quality attention to the needs of both the internal and external stakeholders.

The core values are the basis upon which the Board, Management and Staff of CA act, make decisions, plan and strategize . . .

Opening Your World

The Authority will also strengthen stakeholder engagement, partnership, and collaboration . . .

3.2 Key Result Areas

Drawing insights from strategic analysis, status of implementation of the previous strategic intents and commitments, and the mandate as conferred by the law, in the next five (5) years, the strategic activities of the Authority will be founded on the following KRAs:

3.2.1 Key Result Area 1 - Access and Market Development

This KRA aims at facilitating sustainable development, promoting access to and increased use of ICTs. This will be achieved through attainment of universal access to ICT services, effective management of competition in the ICT sector and facilitation of the development and quality of ICT infrastructure and services. This KRA will strategically focus on several initiatives aimed at delivering network coverage for voice, Internet, postal, radio and TV, and ensuring the inclusion of vulnerable groups – women, youth, minorities and people with disabilities (PWDs).

This KRA will also guide provision of certainty to investors and facilitate growth in the ICT sector while ensuring competitiveness, enhanced consumer benefits and protection. Additionally, this KRA will facilitate the development and quality of ICT infrastructure and services in order to ensure improved/optimal QoS and choice for consumers. Lastly, the KRA will guide the Authority in ensuring sustainability in development of ICT through championing green ICT and providing leadership for the

management of e-waste; and building capacity for effective cyber security management and response.

3.2.2 Key Result Area 2 - Enabling Environment

This KRA will focus on promoting inclusiveness and enhancing partnerships that focus on improving the regulatory environment and strengthening stakeholder engagement. This will be achieved through facilitating/developing a responsive policy, legal, regulatory frameworks. Efforts to achieve this will involve providing support for and, lobbying for the development of appropriate policies, legal and regulatory frameworks.

The Authority will also strengthen stakeholder engagements through partnerships, collaborations and linkages leading to more synergetic relationships with key Government MDAs, industry players, regional and international organisations as well as greater awareness about the role of the Authority in ICT regulation and support from the public.

3.2.3 Key Result Area 3 - Capacity Development

This KRA entails enhancing the Authority's capacity to manage challenges, and to improve and adapt to changes arising from the rapid telecommunication/ICT and industry developments. The Authority will focus on all-round capacity development. To strengthen the institutional capacity and maintain a performance excellence path, the Authority will embrace Business Process Reengineering and Automation (BPRA); and continually build its human, technical, management and leadership capacities while placing emphasis on performance management and achievement of operational excellence.

The Authority will also upgrade technological capabilities, ensure up to date internal policies, technologies, tools and establish R&D capacity including the development of synergetic

3.3 Strategic Objectives

In line with the three (3) Key Result Areas, the Authority has identified eight (8) strategic objectives and 14 strategic initiatives that will guide the implementation of various tasks aimed at the actualization of the vision, mission and delivery on the brand promise. The linkage of the strategic objectives and the KRAs is as highlighted in Table 3

3.4 Strategic Initiatives

In order to attain strategic objectives set out in the plan, 14 strategic initiatives will be undertaken. These are broad programmes that include new and/or on-going projects and form the building blocks for departmental/divisional planning. Table 4 shows 14 strategic initiatives alongside their key expected outputs.

Table 3: Key Result Areas and Strategic Objectives

Key Result Area		Strategic Objectives	Explanation
1. Access and Market Development	1.1	Achieve Universal Access to ICT Services	This objective aims at the achievement of universal access to ICT services to all in Kenya especially focussing on the vulnerable groups.
	1.2	Ensure Efficient ICT Markets	This objective targets effective management of competition, the growth of the industry and consumer benefits and protection.
	1.3	Ensure Sustainable Development of ICTs	This objective targets to ensure availability of adequate resources to support the rollout of network infrastructure and services, their sustainability, while offering the necessary protections and assurance for the development of the ICT sector.
2. Enabling Environment	2.1	Ensure Appropriate Regulatory Environment	This objective targets the development and facilitation of an enabling environment to ensure that appropriate and responsive legal, regulatory and licencing interventions are in place to facilitate industry development.
	2.2	Enhance Stakeholder Engagement and Communication	The objective aims at strengthening CA's engagement with key stakeholders such as public, private and other agencies at local, regional and international levels geared towards effectiveness and efficiency, while improving communication and building the Authority's brand.
	2.3	Enhance Partnership and Collaboration	This objective targets building strategic partnerships, collaborations and linkages at local and international levels so as to provide additional leverage for achieving CA's vision.
3. Capacity Development	3.1	Attain High Institutional Capacity and Performance Excellence	This objective targets continual and all round building of capacity of the CA to bring about excellent performance. This includes human, technical, leadership and management capacities; improvement and automation of processes and pursuit of operational excellence. The objective also aims at supporting the industry and sector capacity building.
	3.2	Embrace Research and Innovation Culture	This objective aims to ensure that the CA understands the dynamism in ICT technology and market trends and is able to be proactive by building of requisite R&D organisational capacity and programme through synergetic collaborations with relevant agencies including universities.

The three (3) KRAs, eight (8) Strategic Objectives and the associated Key Performance Indicators (KPIs), baselines for 2018 and targets for the 2023 are presented in Annex 1.

Table 4: Strategic Objectives, Strategic Initiatives and Key Outcomes

St	rategic Objectives	Strategic Initiatives	Key Outcomes
1.1	Achieve Universal Access to ICT Services	1.1.1 Implement universal access programmes	Increased network coverage and penetration of ICTs to all
1.2	Ensure Efficient ICT Markets	1.2.1 Foster competition in the ICT sector	Availability and Affordability of ICT services
		1.2.2 Drive appropriate deployment of infrastructure and services	Availability networks/infrastructures and services
1.3	Ensure Sustainable Development of ICTs	1.3.1 Manage ICT regulatory resources	Quality provision of Services
		1.3.2 Promote green ICT environment	Future Sustainability
		1.3.3 Upgrade national cyber security capabilities	A Secure cyberspace
2.1	Ensure Appropriate Regulatory Environment	2.1.1 Develop a responsive legal, regulatory and licensing regime	Adaptive and facilitative regulatory regime
2.2	Enhance Stakeholder Engagement and Communication	2.2.1 Develop and implement an integrated stakeholder engagement, capacity building and communication strategy	Increased public participation and positive visibility of the CA
2.3	Enhance Partnership and Collaboration	2.3.1 Develop partnerships, collaborations and linkages	Influence regional and international decision making
3.1	Attain High Institutional Capacity and Performance Excellence	3.1.1 Implement Business Process Re-engineering and Automation (BPRA) programme	Efficiency and efficacy
		3.1.2 Develop human capacity	Skilled manpower
		3.1.3 Enhance performance management and operational excellence	Performance excellence.
		3.1.4 Upgrade technologies and tools	Updated policies, technologies and tools
3.2	Embrace Research and Innovation Culture	3.2.1 Establish R&D capacity and programmes	Innovative and research based decision making

The detailed Strategic Initiatives, key projects, outputs, outcomes, key performance indicators, reporting schedule, baseline for 2018 as well as targets for 2023 are shown as Annex 2.

PERFORMANCE MANAGEMENTAND IMPLEMENTATION

4.1 Introduction

This chapter outlines the elements necessary for successful implementation of the strategic plan. These are: responsibilities for implementation, planning, resource requirements, risk management, cross cutting issues, monitoring and evaluation as well as performance management.

PERFORMANCE MANAGEMENT AND IMPLEMENTATION

4.2 Responsibilities for Implementation

The CA Board is responsible for oversight of the performance of the CA Management in the implementation of this Strategic Plan. Therefore, the Board will be appraised regularly on the progress of implementation of the strategic initiatives and the achievement of the intended outcomes.

The Management will be responsible for ensuring effective planning, proper allocation of resources to strategic initiatives, and appropriate planning to ensure the right initiatives are focused on. It will also be responsible for monitoring progress and managing performance.

Both the Board and the Management will ensure appropriate organizational structure and human resources capacity as well as physical and financial resources to implement this strategic plan.

The Authority's Staff at all levels will be responsible for ensuring the systematic achievement of the strategic targets as articulated in this plan, including ensuring timely contribution to the implementation of strategic initiatives, and the pursuit of performance excellence in their areas of operation.

Adequacy and optimal management of human resources is of key importance . . .

4.3 Planning

The Departments/ Divisions established in the organisation structure will incorporate various activities geared towards implementation of strategic initiatives in their five (5) year plans and ensure that these activities are appropriately prioritized in their annual work plans, procurement plans and budgets. The CA Management will ensure appropriate prioritization in the plans and budgets in order to implement the strategic initiatives in this plan.

4.4 Resource Requirements

Implementation of the Strategic Plan activities - under regulatory, compliance enforcement, universal obligations, and administrative activities for the next five years - will cumulatively require approximately KES 30.973 billion. The details will be highlighted in the five (5) year departmental/divisional implementation matrix provided separately. In order to raise these funds, the CA will focus on both internal and external sources. Some of the internal sources will include fees and levies collected, utilisation of idle assets, prudent management of resources, and limited trading in securities for unremitted balances in its accounts. Notwithstanding the internal resources, there will be need for CA to venture into external sources such as venturing into public-private partnerships and exploring opportunities for development partners' support in some of its initiatives that are able to attract such funds. The allocation of funds will prioritize the strategic initiatives in this strategic plan to ensure they are fully funded and achievable on a timely basis.

Adequacy and optimal management of human resources is of key importance in the implementation of the Strategic Plan. The Authority will set aside resources for capacity building and continuous staff learning and growth in order to ensure the successful implementation of the Strategic Plan.

4.5 Risk Management

In the process of implementation of this strategic plan, there are potential risks that have to be mitigated if the Authority is to achieve its strategic objectives. The Board and Management will pay close attention to all material risks that the organization faces. Table 5 below presents the key external risks that the Authority faces and how it plans to mitigate them. Further, Annex 3 presents a list of risks associated with strategic initiatives, their level of criticality, and mitigation measures.

Table 5: Key External Risks

Key external risk	Risk level	Mitigation measures
External interference	High	Engage with relevant stakeholders including the government and industry
Rapid technological change	High	Build capacity and emphasize on learning and being ahead of the game
Environmental risks (environmental regulations, consumer protection, competitive regulations as well as local, regional and international dynamics)	High	Continuous scanning and analysis of the environment to identify issues and develop effective, appropriate and early response.
Online security risks	High	Develop internal and stakeholder capacity and effective coordination mechanisms to effectively respond to online risks.
Physical risks to ICT infrastructure	High	Lobby and actively contribute to designating ICT as critical infrastructure requiring special protection. Promote multi-agency cooperation for the protection of ICT infrastructure

A detailed list of risks associated with the Strategic Initiatives, their level of criticality and mitigation measures, are presented in Annex 3.

The Authority will closely monitor and evaluate its performance . . .

4.6 Cross Cutting Issues

Cross cutting issues of mainstreaming gender, disability, diversity, national cohesion, ethics, integrity, principles of governance and public service, protection of the environment as well as value for money are provided for under the Constitution 2010 and the Authority will adhere to the Constitution and all the applicable laws.

Under Article 10, national values and principles of governance include equity, social justice, inclusiveness, equality, non-discrimination and protection of the marginalized; and sustainable development. Article 27 on equality and freedom from discrimination provides that every person is equal before the law and equality includes the full and equal enjoyment of all rights and fundamental freedoms. It further provides that women and men have the right to equal treatment, including the right to equal opportunities in political, economic, cultural and social spheres. According to this article, the State shall not discriminate directly or indirectly against any person on any ground, including race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth. The State is obligated to take measures, affirmative action programmes and policies designed to redress any disadvantage suffered by individuals or groups.

The Authority will fully mainstream gender, disability, diversity, and marginalized and vulnerable groups, in compliance with the Constitution and the applicable laws in its

operations and management. In particular, the Authority will ensure it avails equal opportunity and access to ICT services to all, and will provide the environment and implement affirmative action programmes that support the full enjoyment of rights and the realization of the full potential of these population groups. This includes the consumers of the Authority's services, those seeking employment and internal stakeholders.

In line with Article 201 of the Constitution on principles of public finance, the Authority will strive for openness and accountability in the use of resources, and ensure equitable access to ICT services country-wide including making special provisions for marginalized groups and areas, in particular in ensuring universal access to ICT services for all. It will also use the resources available to it in a prudent and responsible way and achieve value for money.

Article 42 provides that every person has the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations. The Authority will take measures to facilitate the adoption of Green ICT and to reduce e-waste thereby contributing to a clean and healthy environment for citizens.

The Authority will closely monitor and evaluate its performance in respect to the cross cutting issues including collecting disaggregated data to guide its management decisions.

4.7 Monitoring and Evaluation

Monitoring and Evaluation (M&E) will be key to the successful implementation of this Strategic Plan. It will ensure that targets are efficiently implemented within the set timelines and allocated budget. Monitoring of activities will be done through an automated system, which will provide timely information on the progress of implementation of activities throughout the planning period. M&E will involve quarterly, annual, mid-term and end-term reviews.

Quarterly and annual reviews: Internal quarterly reviews will be undertaken to assess progress and challenges in the implementation of activities at the end of every quarter. Midyear and Annual reviews to assess progress and challenges in the achievement of planned outputs will be undertaken with the support of the external consultant. The reports from these reviews will inform decision making to ensure that the implementation of the Strategic Plan remains on track. An analysis report will directly inform the annual work plans for the subsequent Financial Year (FY).

Mid-term review: In recognition of the dynamism of ICT sector, the Authority will undertake a mid-term review in the FY 2020/21 to examine the status of achievement of the Strategic Plan at half term against the expected results and the relevance of future targets. This review will guide the revision of the Strategic Plan to align with the new dynamics in the ICT sector.

End-term review: The Strategic Plan will be reviewed as part of the exercise of formulating the next Strategic Plan. The review will determine the extent to which the expected KRAs, Strategic Objectives and Initiatives were achieved, challenges encountered and lessons learnt. The output of this review will provide critical input for the formulation of the 5th Strategic Plan and will be necessary to ensure continued improvement in the effectiveness and efficiency with which the CA executes its mandate from 2023 and beyond.

4.8 Performance Management

Performance management is a critical factor for successful implementation of any strategic plan. The responsibility of achievement of Strategic Plan objectives will be cascaded from the Board to different levels of management as depicted in Annex 4. The CA Management will monitor and evaluate progress and performance in the achievement of the plan's activities, outputs and outcomes and ensure that the strategic plan intended outcomes are realized. In so doing, the CA Management will identify bottlenecks and take necessary corrective action on an ongoing basis.

The Authority will monitor the implementation of the Strategic Plan through an automated performance management system that will be incorporated within wider Business Process Re-engineering and Automation (BPRA) programme. The performance management system will provide timely and valid information on the progress of implementation of the Strategic Plan.

The CA will ensure that the system includes quality indicators and "software" perspective such as individual and organizational growth and development, learning culture, continuous improvement initiatives, quality of working environment including communication and teamwork. The system will, therefore not monitor only the Authority's s activities but also its organizational effectiveness and efficiency.

Heads of departments / divisions will be responsible for effective implementation and supervision of the Strategic Plan activities and they will ensure prompt submission of quarterly and annual progress reports to the Management Committee. These will be compiled and then summarized for presentation to the Board. The progress in the implementation of the Strategic Plan and the achievement of desired outcomes will be evaluated on an annual basis before the formulation of the annual work plans and budgets. There will also be a mid-term review to assess progress and recommend actions necessary to improve performance.

Key instruments for the management of performance will include the automated performance management system, departmental / divisional performance contracts and evaluations; and the annual individual performance appraisals. These will incorporate the strategic initiatives and activities included in this strategic plan.

ANNEXES

ANNEX 1: Key Result Areas, Strategic Objectives, Key Performance Indicators, Baselines and Targets

Key Result Areas	Strategic Objectives	Key Performance Indicators	Baseline 2018	Target 2023
1. Access and Market	1.1 Achieve Universal Access	Mobile penetration (%)	95.1	100
Development	to ICT Services	Internet penetration (%)	47.7	75
		Broadband penetration (%)	42.8	70.3
	1.2 Ensure Efficient ICT Markets	HHI Index (Mobile communications)	4,970	2,500
		Average Price Disparity index	19.9	≤4.0
		Growth in the number of licensees (No)	6,390	7,000
	1.3 Ensure Sustainable Development of ICTs	Quality of Services provision (QoS-voice)	70.8	80
		Level of Spectrum utilization (%)	79.5	90
		National Cybersecurity Readiness Index (Benchmarked on ITU Global Cybersecurity Index (GCI)	Compute Baseline (X) GCI (2017) = 0.574	X +20%
2. Enabling Environment	2.1 Ensure Appropriate Regulatory Environment	Level of compliance on legal audits (%)	83	90
	2.2 Enhance Stakeholder Engagement and Communication	Perception index (%)	80.2	90
		Awareness level (%)	81.1	90
	2.3 Enhance partnership and collaboration	No of strategic positions at international level	5	5
3. Capacity Development	3.1 Attain High Institutional Capacity and Performance	Results Based Performance (PC ranking)	Good (3.18)	Very Good (2.5)
	Excellence	Customer satisfaction index (%)	76.4	90
		Employee satisfaction index (%)	81.1	95
	3.2 Embrace Research and Innovation Culture	Innovations supported (No)	2	5

ANNEX 2: Strategic Initiatives, Key Projects, Outputs, Outcomes, Key Performance Indicators and Targets

Strategic Initiatives	Key Projects	Output	Outcome	Key Performance Indicator	Reporting Schedule	Baseline 2018	Target 2023
1.1.1 Implement universal access programmes	Mobile network connectivity	Mobile network coverage	Increased access to communication services	% of population covered with mobile telephony in un- served and under- served areas	Quarterly	95	100
	Broadband connectivity to learning institutions	Schools connected with broadband	Increased Broadband connectivity to public secondary schools and tertiary institutions	% of schools and institutions connected to broadband in un- served and under- served areas	Quarterly	206	3,000
	Broadcasting universal service	Broadcasting network coverage	Increased access to quality broadcasting services	% of population covered with broadcasting service in un-served and under-served areas	Quarterly	85	90
	Postal and courier universal service	Postal/courier outlets	Increased access to postal/courier services	% of population covered with postal/ courier services in un-served and under-served areas	Quarterly	1,620	1,800
1.2.1 Foster competition in the ICT Sector	Assessment and management of competition in the ICT markets	Competition assessment studies and market interventions	Increased access to affordable ICT services	HHI Index (mobile) & Average Price Disparity index	Quarterly	2	4
	Measurement of QoS	Level of QoS - Telecommuni cations services	Increased access to quality ICT services	% of quality of telecommunication services	Quarterly	70.8	80
	Assessment of Spectrum Pricing	Spectrum pricing studies and market interventions	Increased efficiency in management and utilisation of spectrum resources	% of market- based spectrum management mechanisms	Annually	0	100
1.2.2 Drive appropriate deployment of infrastru- cture and	Dynamic spectrum access	Dynamic spectrum licensing framework	Increased efficiency in spectrum allocation and utilisation	No. of dynamic spectrum licensing framework	Annually	0	1
services	Digital radio broadcasting	Digital Broadcasting licensing framework	Increased access to digital broadcasting	No of digital broadcasting licensing frameworks	Annually	0	1
	Migration from medium wave to FM radio transmission	Medium wave stations migrated to FM stations	Improved radio broadcasting coverage	No. of KBC radio services migrated to FM	Quarterly	0	5
	Trunked radio network	Trunked radio network licensing framework	Improved frequency utilization for radio network	No. of trunked radio network framework	Quarterly	0	1
1.3.1 Manage ICT regulatory resources	Infrastructure sharing and pricing	New infrastructure sharing and pricing framework	Increased efficiency and competition in ICT sector	No. of infrastructure sharing and pricing framework	Annually	0	4
	National addressing system (NAS)	NAS Frameworks	Provide infrastructure to facilitate growth of e-commerce	No. of NAS Frameworks	Quarterly	0	1
		NAS infrastructure roll-out	Create an enabling environment to facilitate the growth of e-commerce	% of the national coverage rate of the NAS	Quarterly	X	X+10%

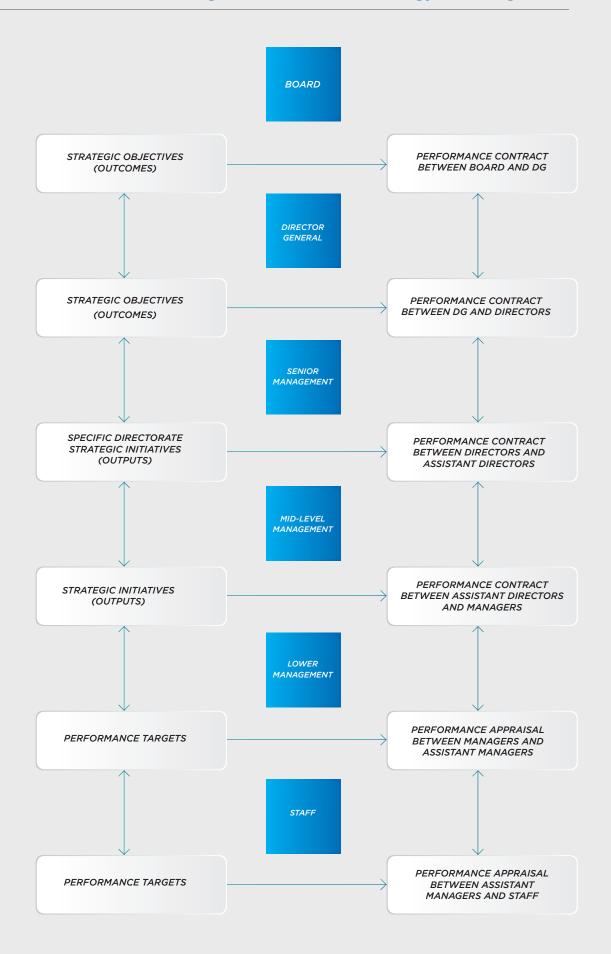
Strategic Initiatives	Key Projects	Output	Outcome	Key Performance Indicator	Reporting Schedule	Baseline 2018	Target 2023
	Upgrade spectrum management	Upgraded regulatory tools	Efficient spectrum utilisation	No. of upgraded regulatory tools	Annually	2	5
1.3.2 Promote Green ICT environment	Green ICT programme	Green ICT and E-Waste disposal frameworks	Future sustainability of ICT resources	No. of Green ICT frameworks	Annually	0	2
Upgrade National Cyber Security	Cyber security capability upgrading program	Cyber security infrastructure and Collaborative	Adequate safeguards against cyber crime leading	% of cyber security initiatives implemented	Quarterly	4	4
Capabilities	p. 0 g. a	frameworks developed	to reduced cyber-attacks	No. of new collaborations with other CIRTs	Quarterly	8	25
2.1.1 Develop a responsive legal, regulatory and licensing regime	Review of regulations and licensing regime	Revised policy and regulatory frameworks	A responsive regulatory environment in the dynamic ICT sector	No. of revised frameworks	Quarterly	0	16
2.2.1 Develop and implement an integrated stakeholder engagement.	Stakeholder engagement and capacity building	Hosting of Stakeholder forums	Enhance stakeholder participation	No. of stakeholder forums held per year	Quarterly	3	4
capacity building and communica- tion strategy	Consumer / public education programmes	Hosting ICT consumer forums (County Kikao Kikuu)	Enhanced consumer awareness	No. of County ICT consumer forums (Kikao Kikuu) held per year	Quarterly	2	3
	Corporate communications and branding	Public awareness	Increased national visibility	Perception index (%)	Annually	80.2	90
	and branding		VISIBILITY	Awareness level (%)	Annually	81.1	90
2.3.1 Develop partnerships, collaborations and linkages	Partnerships and collaborations programmes	Increased regional and international representation	Regional and international presence/visibility	No. of regional and international positions	Quarterly	3	5
3.1.1 Implement Business Process Re- engineering	Business Process Re-engineering and Automation	Internal processes automated	Efficiency of the internal processes	% of the internal process automated	Quarterly	35	100
and Automation (BPRA) project	(BPRA)	Customer processes available online	Efficiency of customer management processes	% of the customer management processes automated	Quarterly	20	100
3.1.2 Develop human capacity	Capacity development programmes	Capacity development programmes implemented based on skills gap	Enhance human capacity skills	% of the capacity development programmes implemented	Quarterly	92	95
3.1.3 Enhance performance management and operational excellence	Performance management and operational excellence programme	Achievement of committed targets in the PC and Annual work plans as per Strategic Plan	Achievement of Corporate mandate and commitments	Corporate performance score (grade)	Quarterly Annually	Good	Very Good
3.1.4 Upgrade technologies and tools	Technology and tools upgrade programme	Upgraded systems and regulatory tools	Effectiveness of service delivery	No. of upgrade systems and regulatory tools	Quarterly	6	6
3.2.1 Establish R&D capacity and programmes	R&D programmes and collaborations	R&D and innovation programmes and collaborations	Enhance research development and innovation in ICTs	No. of R&D programmes and collaborations	Quarterly	2	5

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ANNEX 3: Risks Associated With Strategic Initiatives And Mitigation Measures

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Key Result Areas	Strategic Objectives	Strategic initiatives	Strategic Risks	Risk Level	Mitigation measures
1. Access and Market Development	1.1 Achieve Universal Access to ICT Services	1.1.1 Implement universal access programs	Over-dependence on a single operator, low absorptive capacity by the market, and inadequate technical knowhow to manage the projects.	High	Explore alternative methods of implementing universal access projects, build internal competences to implement and manage the projects
	1.2 Ensure Efficient ICT Markets	1.2.1 Foster competition in the ICT Sector	Interference in the Authority's mandate in competition management	High	Enhance engagement with relevant stakeholders-government, industry, and consumers
		1.2.2 Drive appropriate deployment of infrastructure and services	Inadequate requisite resources for network development	Medium	Efficient management of scarce resources
	1.3 Ensure Sustainable Development of ICTs	1.3.1 Manage ICT regulatory resources	Non-compliance by licensees	Medium	Enhancing capacity for and enhancing enforcement of regulations
		1.3.2 Promote Green ICT environment	E-waste disposal	Medium	Collaborate with National Environment Management Authority (NEMA) on the disposal of E-waste
		1.3.3 Upgrade National Cyber Security Capabilities	Cyber-attacks to critical ICT networks and infrastructure	High	Build capacity to deal with cyber- attacks
2. Enabling Environment	2.1 Ensure Appropriate Regulatory Environment	2.1.1 Develop a responsive legal, regulatory and licensing regime	Inadequate regulatory response to rapid change of technology	High	Embrace research and innovation in developing regulatory interventions
			Interference with the Authority's independence to execute its mandate	High	Enhance engagement with relevant stakeholders-government, industry, and consumers
			Litigation challenging the outcomes of regulatory and legislative process	Medium	Enhanced stakeholder involvement in the regulatory and legislative process
	2.2 Enhance Stakeholder Engagement and Communication	2.2.1 Develop and implement an integrated stakeholder engagement, and communication strategy	Non- operationalization of contractual agreements by stakeholders	Medium	Continuously engage stakeholders and implement programs on corporate communications and branding
	2.3 Enhance partnership and collaboration	2.3.1 Develop partnerships, collaborations and linkages	Failure to monitor partnerships and joint working arrangements	High	Implement strong governance arrangements including systems to agree on aims, objectives structures and responsibilities
3. Capacity Development	3.1 Attain High Institutional Capacity and Performance Excellence	3.1.1 Implement Business Process Re-engineering and Automation (BPRA)	Failure to automate internal processes	Medium	Automate internal processes
		3.1.2 Develop human capacity	Inadequate human capacity for research, development and innovation in ICTs	Medium	Develop human capacity in staff and industry
		3.1.3 Enhance performance and operational excellence	Failure to link performance contract with individual annual performance appraisal	High	Link and automate performance contracting mechanism with individual annual performance appraisal
		3.1.4 Upgrade technologies and tools	Failure to upgrade regulatory tools and build adequate specialised capacities	Medium	Strengthen corporate capability to deal with rapid changes
	3.2 Embrace Research and Innovation Culture	3.2.1 Establish R&D capacity and programs	Failure to respond to new changes in the regulatory environment	High	Creation of research and innovation unit

ANNEX 4: Performance Management Framework - Strategy Cascading Process



ANNEX 5: Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

- 1. CA's critical and widely recognized role in the growth of the ICT sector (mobile telephony and money, Internet, broadband penetration, radio and TV broadcasting coverage).
- 2. Credited with reducing the cost of communication in Kenya and the region.
- 3. CA is a strong player in the industry and a key regional player.
- 4. The firmness and resolve that resulted in meeting the global deadline for digital TV migration gave the CA a good standing in the public domain.
- 5. Strong, competent and professional team.
- 6. Up to date technology.
- 7. Past performance in key functional areas including management of the spectrum, resolving EMF interference and enforcing QoS.
- 8. Cyber-security monitoring and response capacity in place.
- 9. Operationalization of USF and the rollout of universal service obligation initiatives.
- 10. Very good web presence (informative website) and useful data on the ICT sector.
 - 11. Significant assets and resources including a good financial base, office facilities, land and houses.
 - 12. Commencement of the BPRA project.

1. Less than optimal handling of ICT industry/market competition.

- 2. Perception about delays in resolving some issues, for example interconnection, disputes, emerging technologies.
- 3. Inefficient customer facing processes.
- 4. Low interdepartmental synergies.
- 5. Low synergies/engagement with other infrastructure and security agencies (roads, energy, internal security) to support efficient rollout of universal access initiatives.
- 6. Weak public and stakeholder communication and engagement capacity.
- 7. Weak partnerships, collaborations and linkages with other organizations

STRENGTH

WEAKNESS

OPPORTUNITY

THREATS

- 1. External interference in CA affairs.
- Inefficient market competition (mobile, mobile money).
 Rapid ICT technological and service developments as well as
- innovations.
- 4. Technology and services convergence requiring a flexible and converged licensing regime.
- 5. Poor public awareness of CA's role.
- 6. Negative Public perception and publicity.
- 7. Inadequate stakeholder engagement.
- 8. Perception of lack of independence.
- 9. Consumers and industry with more power and demanding.
- 10. Consumers demanding high bandwidth, always-on, on-the-go.
- 11. Poor protection of ICT infrastructure which is not deemed critical under the law.
- 12. Low investment in the ICT sector by the Government and private sector.
- 13. ICT services access gaps.
- 14. Difficult to reach areas, disperse populations, and poor infrastructure roads, power, security; slowing down the speed of achievement of universal access.
 - 15. Overlapping mandates with other Government MDAs.
 - 16. Weak policy and legal framework (the CA can play a strong
 - 17. Emerging services that are difficult to regulate (such as WhatsApp, Youtube, social media).
 - 18. Increasing cyber security threats. 19. Increasing burden of e-waste.

- 1. Demanding political and policy environment The Vision 2030, MTP III and Big 4 Agenda - ICT considered a critical enabler.
- 2. The significant improvement in the World Bank's ease of doing business ranking partly attributed to ICT sector development.
- 3. Smart local and global audience highly exposed to global possibilities.
- 4. Rapidly evolving technology and services.
- 5. Technology convergence with multiplicity of services enabled by ICT/ Internet.
- 6. Broadband will be increasingly critical further entrenching the critical role of the CA on universal access service and as an ICT regulatory authority.
- 7. Regional integration.
- 8. A rapidly developing, innovating and highly demanding industry.
- 9. A highly educated and ICT literate, youthful and demanding population.
- 10. Proliferation of e-commerce.

international bodies.

- 11. Infrastructure sharing.
- 12. Bridging access gaps partnerships with Counties and other sectors (roads, energy, security).
- 13. Advocacy and publicity- a potential niche area for CA.
- 14. Expanding to the regions to support devolved system of governance. 15. Expanding spectrum - through sharing (and utilization of white spaces).
- 16. Potential strategic relationships, partnerships, collaborations and linkages with parent Ministry of Information and Communication Technology (MoICT) and other Government MDAs as well as local, regional and
 - 17. The requirements of the Constitution 2010 under the Bill of Rights and especially those on equality and enforcement.

ANNEX 6: Political, Economic, Social, Technological, Environmental and Legal (PESTEL) Analysis

POLITICAL

- Demanding political and policy environment Vision 2030, MTP III and Big 4 Agenda ICT considered a critical enabler.
- 2. The requirements of the Constitution 2010 under the Bill of Rights and especially those on equality and enforcement.
- 3. External interference in CA's internal affairs.
- 4. Poor public awareness of CA's role.
- 5. Perception of the CA as a strong player in national ICT sector affairs.
- 6. ICT services access gaps.
- 7. Expanding regional integration.
- 8. Perception of lack of independence.
- 9. Poor stakeholder engagement.
- 10. Low public awareness of universal access initiatives.
- 11. Non-optimal relationships with key Government MDAs.
- 12. Negative perception and negative publicity.

ECONOMIC

- 1. A rapidly developing, innovating and highly demanding industry.
- 2. The significant improvement in the World Bank Ease of Doing Business ranking partly attributed to ICT sector development.
- 3. CA's critical and widely recognized role in the growth of the ICT Sector (mobile and internet penetration, mobile money, radio, TV)
- 4. Reduced cost of communication in Kenya and the region.
- 5. CA considered a strong player in the industry and a key regional player.
- 6. The growth and proliferation of e-commerce.
- 7. Significant assets and resources including a good financial base, office facilities, land and houses.
- 8. Poor market competition (mobile, mobile money).
- 9. Changing face of business with emerging business models with multiplicity of actors (including micro, small and medium enterprise players).
- 10. Low investment in the ICT sector by the Government and private sector.

SOCIAL

- 1. A highly educated and ICT literate, youthful and demanding population (also a threat).
- 2. Smart local and global audience highly exposed to global possibilities.
- 3. CA role in securing mobile communications.
- 4. Weak public and stakeholder communication and engagement capacity.
- 5. Inadequate focus on gender and other cross cutting issues.
- 6. Operationalization of USF.
- 7. Increasing cyber security threats.
- 8. Consumers and industry with more power and more demanding.
- 9. Consumers demanding high bandwidth, always-on, on-the-go.

ANNEX 6: Political, Economic, Social, Technological, Environmental and Legal (PESTEL) Analysis

TECHNOLOGICAL

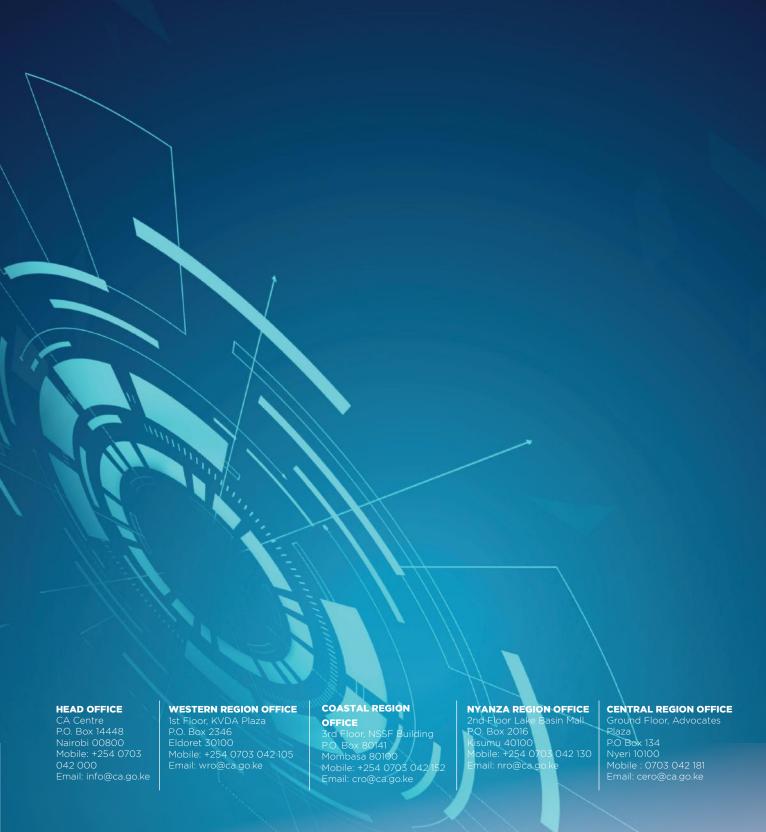
- 1. Rapidly evolving technology and services.
- 2. Technology convergence with multiplicity of services enabled by ICT/Internet.
- 3. Broad band increasingly critical further entrenching the critical role of the CA on universal access.
- 4. Strong, competent and professional team.
- 5. Up to date technology.
- 6. Past performance in key functional areas including management of the spectrum, resolving EMF interference and enforcing QoS.
- 7. CA cyber security monitoring capacity and response commendable.
- 8. Need for infrastructure sharing.
- 9. Current BPRA programme.
- 10. No R&D though the need is well-articulated.
- 11. Emerging technologies and services that are difficult to regulate (such as WhatsApp, YouTube, social media).
- 12. Difficult to reach areas, disperse populations, and poor infrastructure roads, power, security slowing down the rollout of universal access initiatives rapid ICT technological and service developments and innovations.
- 13. Technologies and services convergence requiring a flexible and converged licensing regime.
- 14. Rapid innovation and massive competing offerings (OTT services Netflix).

ENVIRONMENTAL

1. A growing e-waste burden.

LEGAL

- Inadequate policy and legal framework (potential niche area for CA support).
- 2. Poor protection of ICT infrastructure, which is not deemed critical under the law.



STRATEGIC PLAN

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