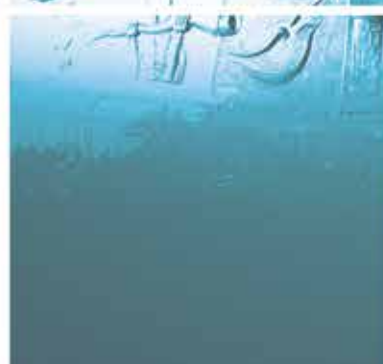




ANNUAL REPORT **2015-2016**



**COMMUNICATIONS
AUTHORITY OF KENYA**





VISION

Access to and use of Information and Communication Services by all in Kenya by 2018.

MISSION

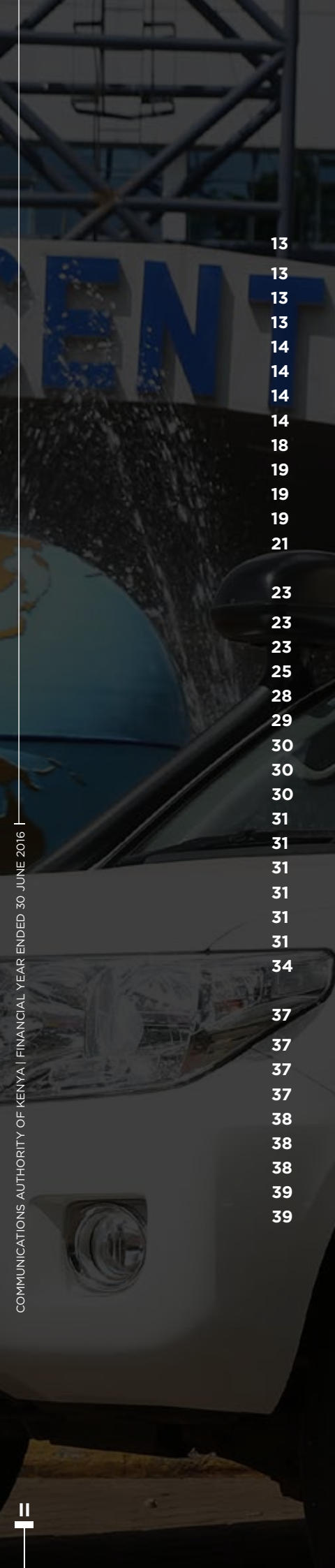
Facilitate the transformation of lives through progressive regulation of the Information and Communication Technology Sector.

VALUES

- Integrity
- Transparency
- Diligence
- Results-focus
- Accountability
- Teamwork

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Acronyms And Abbreviations

| | |
|----------------|---|
| KICA | Kenya Information and Communications Act Cap 411A |
| KNLS | Kenya National Library Services |
| KPIs | Key Performance Indicators |
| LA | Legal Affairs |
| LAN | Local Area Network |
| LCS | Licensing Compliance Standards |
| LLOs | Local Loop Operators |
| LTE | Long Term Evolution |
| Mbps | Mega Bits Per Second |
| MHz | Mega Hertz |
| MNDC | Mobile National Destination Codes |
| MOS | Mean Opinion Score |
| MOU | Minutes of Usage |
| MoU | Memorandum of Understanding |
| MTR | Mobile Termination Rate |
| NACADAA | National Campaign Against Drug Abuse Authority |
| NACC | National Aids Control Council |
| NCPWDs | National Council for Persons with Disabilities |
| NFP | Network Facility Provider |
| NFP T1 | Network Facility Provider Tier 1 |
| NFP T2 | Network Facility Provider Tier 2 |
| NFP T3 | Network Facility Provider Tier 3 |
| NGN | Next Generation Networks |
| NPC | National Preparatory Committee |
| PAPU | Pan African Postal Union |
| PBXs | Private Branch Exchanges |
| PCK | Postal Corporation of Kenya |
| PDNO | Public Data Network Operator |
| PKI | Public Key Infrastructure |
| POC | Postal Operations Council |
| PROC | Procurement |
| PRS | Premium Rate Services |
| PSTN | Public Switched Telephone Network |
| PWDs | Persons with Disabilities |
| QMS | Quality Management System |
| QoS | Quality of Service |
| RxLev | Received Signal Level |
| SCR | Submarine Cable Landing Rights |
| SEACOM | Sea Submarine Communications |

| | |
|---------------|---|
| SHF | Super High Frequency |
| SMS | Short Message Service |
| MMS | Multimedia Services |
| SSA | Sub-Saharan Africa |
| Tbps | Tera Bits Per Second |
| TEAMS | The East African Marine System |
| TEC | Telecommunications Contractors |
| TEV | Telecommunications Vendors |
| TKL | Telkom Kenya Limited |
| TNA | Training Needs Assessment |
| TP | Technical Personnel |
| TV | Television |
| UCC | Uganda Communications Commission |
| UDPK | United Disabled Persons of Kenya |
| UHF | Ultra High Frequency |
| UK | United Kingdom |
| ULF | Unified Licensing Framework |
| UPU | Universal Postal Union |
| USD | United States Dollar |
| USF | Universal Service Fund |
| VAS | Value Added Services |
| VHF | Very High Frequency |
| VoIP | Voice over Internet Protocol |
| VSAT | Very Small Aperture Terminal |
| WIMAX | Worldwide Interoperability for Microwave Access |
| WRC-12 | World Radio Conference 2012 |
| WSIS | World Summit on the Information Society |
| WTDC | World Telecommunications Development Conference |

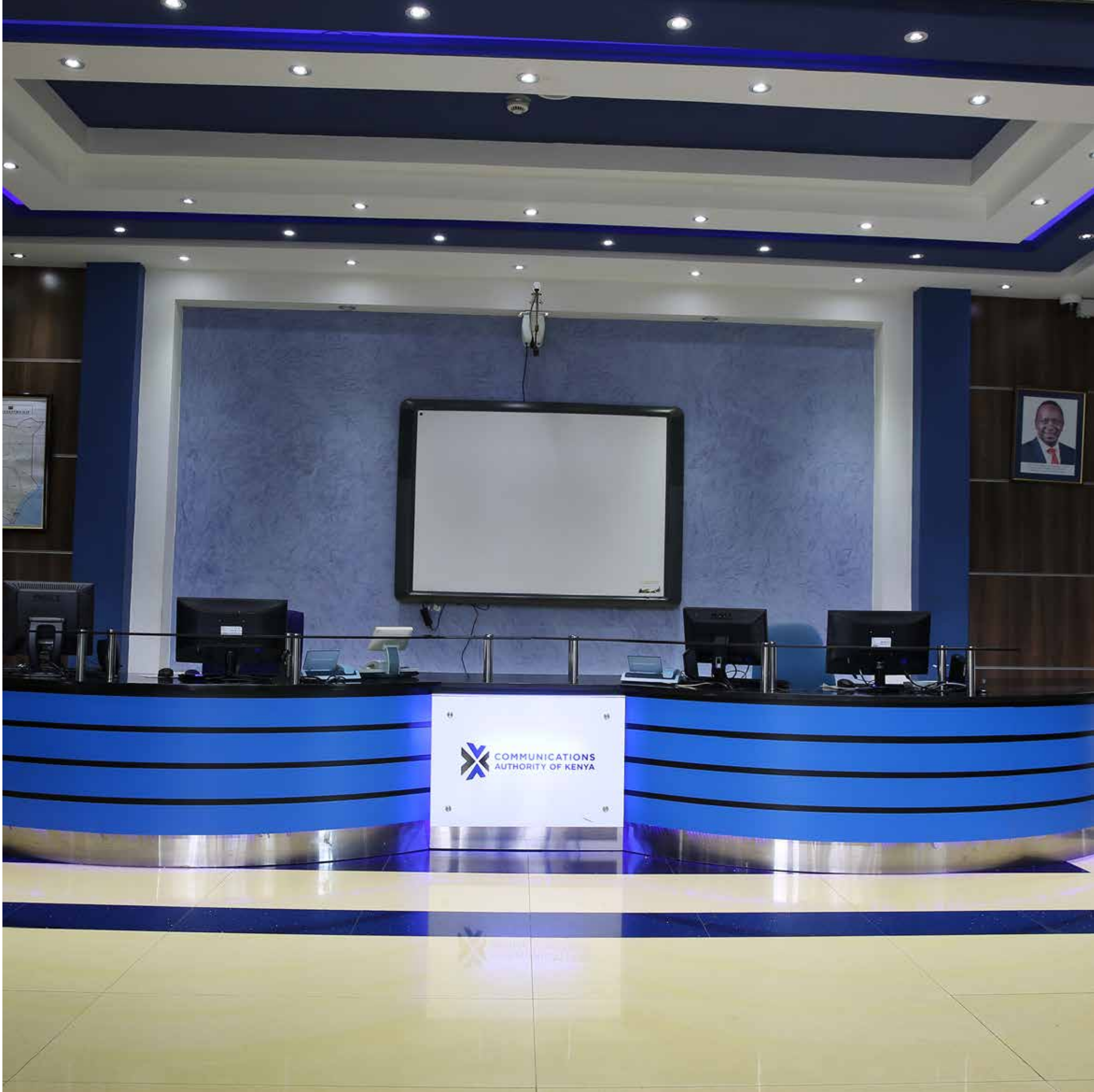
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| 2G | Second Generation |
| 3G | Third Generation |
| 4G | Fourth Generation |
| AFRALTI | African Advanced Level Telecommunications Institute |
| AIDS | Acquired Immune Deficiency Syndrome |
| ARICEA | Association of Regulators of Information and Communications for Eastern and Southern Africa |
| ASK | Agricultural Society of Kenya |
| ASP | Application Service Provider |
| ATU | African Telecommunications Union |
| BPO | Business Process Outsourcing |
| BUC | Block Up Converter |
| BTS | Base Transmitter Stations |
| CA | Communications Authority of Kenya |
| CAP | Chapter |
| CB | Citizen Band |
| CCK | Communications Commission of Kenya |
| CIIP | Critical Information Infrastructure Protection |
| CIRT | Computer Incident Response Team |
| CPI | Consumer Price Index |
| CPA | Consumer and Public Affairs |
| CS | Commission Secretary |
| CSP | Content Service Providers |
| CSR | Corporate Social Responsibility |
| CTMA | Competition Tariffs and Market Analysis |
| CTO | Commonwealth Telecommunications Organisation |
| dBm | Decibels (dB) measurement (m) |
| DCNO | Data Carrier Network Operator |
| DG | Director-General |
| DMP | Dominant Market Power |
| DR | Disaster Recovery |
| DSL | Digital Subscriber Line |
| DTC | Digital Television Committee |
| DVB-T2 | Digital Video Broadcast - Terrestrial 2 nd Generation |
| EAC | East African Community |
| EACO | East African Communications Organization |
| EASSy | East African Sub-marine Cable System |
| EDGE | Enhanced Data Rates for GSM Evolution |
| F&A | Finance and Accounts |
| FSM | Frequency Management Spectrum |

| | |
|-------------------|--|
| FTR | Fixed Termination Rate |
| FWA | Fixed Wireless Access |
| GAAP | Generally Accepted Accounting Practice |
| Gbps | Giga Bits Per Second |
| GDP | Gross Domestic Product |
| GE06 | Geneva 06 agreement |
| GHz | Giga Hertz |
| GIXP | Government Internet Exchange Point |
| GMPCS | Global Mobile Personal Communications by Satellite Service Providers |
| GPRS | General Packet Radio Service |
| GSM | Global System For Mobile Communication |
| GSR | Global Symposium for Regulators |
| HF | High Frequency |
| HIV | Human Immuno-deficiency Virus |
| HPA | High Power Amplifier |
| HCA | Human Capital and Administration |
| HSPA | High Speed Packet Access |
| RMIA | Risk Management and Internal Audit |
| IASs | International Accounting Standards |
| IBGO | Internet Backbone and Gateway Operator |
| ICANN | Internet Corporation for Assigned Names and Numbers |
| ICT | Information and Communication Technology |
| IGF | Internet Governance Forum |
| IGS | International Gateway Systems and Services |
| IMIS | Integrated Management Information System |
| IP | Internal Protocol |
| ISO | International Organization for Standardization |
| IT | Information Technology |
| ITU | International Telecommunication Union |
| ITU-D | ITU Telecommunication Development sector |
| ITU-R | ITU Radio-communication sector |
| ITU-T | ITU Standardisation sector |
| EACC | Ethics and Anti-Corruption Commission |
| KCCT | Kenya College of Communications Technology |
| KE-CIRT/CC | Kenya National Computer Incident Response Team/Coordination Centre |
| KECOSO | Kenya Communications Sports Organization |
| KENIC | Kenya Network Information Centre |
| KES | Kenya Shilling |

Acknowledgement

The Authority acknowledges and appreciates the hard work that went into developing this Annual Report. In this regard, the Authority wishes to thank the following individuals for their dedication, commitment and professionalism in developing this Annual Report.

- 1. Dr. James Njeru
- 2 Mr. Liston Kirui
- 3. Mr. Bernard Nderitu
- 4. Mr. Juma Ooro
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- 6. Mr. Lukas Musembi
- 7. Mr. Paxton Musomba
- 8. Mr. Victor Maina
- 9. Ms. Stellah Abongo
- 10. Ms. Jackline Muthoka
- 11. Mr. Michael Kibukosya
- 12. Mr. Phonfred Jaoko
- 13.Mr. Francis Sitati
- 14.Ms. Betty Kirimi
- 15. Mr. Edwin Ombega
- 16. Ms. Winnie Owiti
- 17. Mr. Lewis Muriithi
- 18. Consumer and Public Affairs Team



[CA Board of Directors]



FROM LEFT TO RIGHT Mr. Paul Kukubo, Mr. David Kitur, Ms. Patricia Kimama, Mr. Christopher Huka, Mr. Francis W. Wangusi, Mr. Ngene B. Gituku, Mr. Sammy Itemere, Ms. Kentice Tikolo, Mr. Mwenda Njoka, Mr. Mugambi Nandi, Ms. Beatrice Gathirwa, Prof. Levi Obonyo

Directors’ Biographies

Mr. Ngene B. Gituku

Chairman of the Board

Mr. Ngene B. Gituku is the Chairman of the Board of Directors of Communications Authority of Kenya.

Prior to his appointment, he served as the immediate past Chairman of the Board of Communications Commission of Kenya (CCK).

He has served as a Board member at Kenya Broadcasting Corporation (KBC) and Kenya Pipeline Company (KPC). At KBC, he was instrumental in introducing automated systems to increase the efficiency of the Corporation. He championed the restructuring of KBC to improve its financial position. At the Kenya Pipeline Company, as the Chairman of the Project Planning Committee of the Board, he initiated the construction of Jet A-1 tanks in Kisumu and Eldoret. Through his leadership, KPC was also able to construct additional tanks at the Kipevu Oil Terminal in Mombasa to enhance the importation of refined oil products.

Mr. Gituku earlier worked at a multinational computer company (NCR Kenya Ltd) and later joined the Nation Media Group as a Marketing Assistant where he rose to the position of Assistant Advertising Manager in 1985. In 1987, he joined the Standard Group of Newspapers as a Group Circulation Manager. He later left to establish his own business.

He holds a BSc. Degree in Mathematics and Meteorology from the University of Nairobi and Diploma in Marketing.

Mr. Gituku was appointed to the position on 23rd May 2014 for a three-year term.

Mr. Francis W. Wangusi, MBS

Director General

Mr. Francis W. Wangusi is the Director-General of the Communications Authority of Kenya. He was appointed to the position on 21st August 2012 for a period of three years, and renewed in August 2015 for a four year term in line with KICA as ammended in 2013.

Mr. Wangusi holds a Masters degree in Space Sciences with specialization in Satellite Communications from the International Space University,

France; a BSc in Telecommunications Engineering from the University of Rome, Italy and a Chartered Engineer Part II Certificate from the Institute of Electronics Engineering, UK. He is also a holder of Global Executive Masters Degree in Business Administration (GEMBA) from the United States International University (USIU-A).

Mr. Sammy Itemere, MBS

Director

Mr. Sammy Itemere is the Principal Secretary in the Ministry of ICT in charge of the State Department of Broadcasting and Telecommunications. He has oversight role in the State Parastatals that include, Postal Corporation of Kenya (PCK), Kenya Broadcasting Corporation (KBC), Kenya Institute of Mass Communications (KIMC) and Communications Authority of Kenya (CA). Prior to his appointment in December 2015, Mr. Itemere was a Senior Partner at Business Persons Mentor Limited, a Consultancy firm dealing with Business Development, Strategy Formulation, Partnerships Growth, Training and Up-skilling.

As a career banker, he has a wealth of experience spanning over 20 years in running Retail, Corporate, Enterprise Banking as well as Bank operations. He was previously the Country Managing Director of KCB South Sudan limited a subsidiary of KCB Group Ltd. He has also held senior positions in Imperial Bank, Equatorial Commercial Bank (ECK), Barclays Bank and Credit Bank. Mr. Itemere holds a BA Economics (Hons) and MBA (Marketing Option) from University of Poona, India

Ms. Judy Munyinyi Mumo

Alternate Director

Ms. Judy Munyinyi Mumo is the acting Secretary for Information in the State Department of Broadcasting and Telecommunications, Ministry of ICT. She has over 15 years’ experience in the communications industry, specifically in Government communication, print media, broadcast media, digital media and development communication. Until her appointment to the current position, Ms. Munyinyi was the Director of Research in the Presidential Strategic Communications Unit (PSCU).

Directors’ Biographies

She has held senior editorial positions in media houses in Kenya, starting off in television as a Business News Anchor and diversifying into newspaper and magazine production, digital content management and corporate communications.

Ms.Munyinyi holds a Bachelor’s Degree from Daystar University and is currently pursuing her Masters in Diplomacy and International Studies at the University of Nairobi.

She is a member of the Association of Media Women in Kenya (AMWIK) and a Fellow of the International Volunteers Leadership Programme, USA.

She serves on the Communications Authority of Kenya board as an Alternate Director to the Principal Secretary, State Department of Broadcasting and Telecommunication.

Dr. Kamau Thugge, EBS, MBS

Director

Dr. Kamau Thugge is the Principal Secretary at the National Treasury. He was appointed to this position on 25th June, 2013. He serves in the Communications Authority of Kenya Board in his position as Principal Secretary at the National Treasury.

Dr. Thugge holds a Doctorate of Philosophy (PhD) in Economics from Johns Hopkins University, Master in Economics from Johns Hopkins University, USA and Bachelors of Arts (Economics) from Colorado College, USA.

Ms. Beatrice Gathirwa

Alternate Director

Ms. Beatrice Gathirwa is the Senior Deputy Accountant General/ Director Investment in the Department of Government Investment and Public Enterprises at the National Treasury. She holds an MBA from Moi University and a Certified Public Accountant. She is a member of the Institute of Certified Public Accountants of Kenya and is also a member of the secretariat of the Public Accounting Standards Board. She serves on the Communications Authority of Kenya Board as the Alternate Director to the Principal Secretary, National Treasury.

Dr. Karanja Kibicho

Director

Dr.Eng.Karanja Kibicho (CBS) is the Principal Secretary State Department of Interior in the Ministry of Interior and Coordination of the National Government. Before the current appointment, he served as the Principal Secretary in the Ministry of Foreign Affairs and International Trade and also as a Permanent Secretary in the Ministry of Industrialization.

He holds a Doctorate in Mechanical Engineering from the University of Cape Town, South Africa, a Masters of Science (MSc) degree in Mechanical Engineering and a Bachelor of Science (BSc) in Mechanical Engineering. Dr. Kibicho has taught in various institutions of higher learning in Kenya and outside the country. They include Jomo Kenyatta University of Agriculture and Technology (JKUAT) where he served as the Chairman and Senior Lecturer in the Department of Mechanical Engineering. He has served as an external examiner at the University of Dar es Salaam, visiting lecturer at the Central University of Technology, Free State, South Africa and a part-time Lecturer at the University of Cape Town.

Mr. John M. Njoroge

Alternate Director

Mr. John M. Njoroge is a Chief Economist at the Ministry of Interior and Coordination of the National Government. He holds a Master’s and Bachelor’s Degrees in Economics from the University of Nairobi. He has attended various courses up to Diploma both locally and internationally.

He has over 26 years’ experience in Security, Education, ICT, Economic Development, Gender Mainstreaming, Budget Formulation and Execution, Monitoring and Evaluation issues.

He serves on the Communications Authority of Kenya Board as an Alternate Director to the Principal Secretary, Ministry of Interior and Coordination of the National Government.

Directors’ Biographies

Mr. David Kitur

Director

Mr.David Kitur is an engineer and a businessman with interests in the technology industry. He is the Executive Director of Microlan Africa. He has vast experience in the ICT industry having worked as an engineer at the then Voice of Kenya (now KBC), Kenya Railways, Kenya Power, Amarco and Umeme Services. He holds a Master of Science (Msc.) degree in Software Systems Technology from Sheffield University, UK and a Bachelor of Science in Electrical and Electronics Engineering from the University of Nairobi.

Mr. Kitur has attended courses in Public Procurement and Corporate Governance, among others. He was appointed to the Communications Authority of Kenya Board on 29th April 2016 for a term of three years.

Ms. Kentice Tikolo

Director

Ms.Kentice Tikolo is a communications expert with over 15 years’ experience in Strategic Corporate Communications and Public Relations. She is the founder and Managing Director of Impact Africa Limited, a strategic Public Relations & Communications firm, based in Nairobi, Kenya. Kentice is a board member of the Global Alliance for PR & Communication Management as well as the Media, Arts & Entertainment Board of the Machakos County (Machawood). She sits on the committee of the Media in Environment, Science, Health and Agriculture (MESHA) and is the immediate past Chair of the Public Relations Society of Kenya (PRSK). She is also a member of the Chartered Institute of Public Relations (CIPR) and Federation of African Public Relations Association (FAPRA).

Ms. Tikolo has worked at the Kenya Wildlife Service as the Head of Corporate Communications. She earlier worked as public relations officer for a number of parastatals and NGOs, where she rose through the ranks to the position of Manager Corporate Communications at the Kenya Civil Aviation Authority.

Ms.Tikolo holds a Master of Science degree in Public Relations from the University of Stirling in Scotland, and a first degree in Education from Kenyatta University. She was appointed to the Communications Authority of Kenya’s Board on 29th April 2016 for a period of three years.

Prof. Levi Obonyo

Director

Prof. Levi Obonyo is an Associate Professor of Communication and Media Studies, and also the Dean of the School of Communication,

Language and Performing Arts at Daystar University.

He started his career as a news correspondent in various media houses and later worked as an editor for magazines before joining academia. Prof. Obonyo has taught media studies at various universities for over 20 years.

Prof. Obonyo holds a PhD in Mass Media and Communications from Temple University Philadelphia, USA. He also holds a Postgraduate Diploma in Tertiary Education from Potchefstroom University for Christian Higher Education, South Africa.

He has, and continues to serve in several boards and is currently a member of the Advisory Council to Kenya National Commission to UNESCO (KNATCOM) specializing on communications. He is a former Chairman of the Media Council of Kenya.

He is a columnist, has published many articles in academic journals, chapters in books, and co-authored Journalists and the rule of law.

He joined the Communications Authority of Kenya Board in May 2014 and was re-appointed on 29th April 2016 for a further term of three years.

Ms. Patricia Kimama

Director

Ms. Patricia Kimama has over 19 years’ experience in a career spanning banking, telecommunication and water industries. She has held roles in business, project and operational management.

She is currently the Head of Cash Management and e-Channels at the Commercial Bank of Africa. Prior to joining the Banking industry, she worked extensively in the telecommunications and water engineering industries in various capacities including retail Management, customer experience management, Contact Centre management, Dealer and M-pesa business management, operations and sales management.

She holds a Masters in Business Administration (Strategic Management) from Daystar University and a Masters in Project Management from George Washington University. She has been trained in Senior Management Leadership at Strathmore University.

She was appointed to the Communications Authority of Kenya Board on 29th April 2016 for a period of three years.

Directors’ Biographies

Mr. Paul Kukubo, MBS

Director

Mr. Paul Kukubo is a consultant on Technology Value Addition and Inclusion working across East and Southern Africa. He is the founder of 3mice, one of East Africa’s digital solutions companies.

Mr. Kukubo was the first Chief Executive Officer of the Kenya ICT Board (now ICT Authority). He later served as CEO of the East African Exchange (EAX), the first regional commodity exchange in Africa.

He is a Member of the Board of Directors of BRCK, an integrated hardware and software company. He also serves as Chairman of Rafica Company Ltd., a software technology solutions company and Collabmed Ltd., a Healthcare Technology Company.

He is a former chairman of the Marketing Society of Kenya and has also served as a chairman of the National ICT Master Plan committee. He is a member of the International Association of Business Analysis and a board member of Multimedia University. He has previously served on the Task Force on Creative Industries and also served as a member of the Kenya Presidential National Task force on Coffee Sub-sector reforms.

Mr. Kukubo holds a Global MBA from United States International University (USIU-Africa) and a Bachelor of Arts in Economics and Sociology from the University of Nairobi.

He was appointed to the Communications Authority of Kenya board on 29th April 2016 for a period of three years.

Mr.Mugambi Nandi

Director

Mr. Mugambi Nandi is an advocate of the High Court of Kenya, with many years of experience in corporate and commercial law. He is the Managing Partner at KN Associates LLP, Advocates, where he specializes in mergers & acquisitions, private equity, capital market transactions and energy law.

He has previously served as a Board Member of the Privatization Commission of Kenya, and currently sits on a number of boards, including Mayfair Bank Limited (In formation) and Seriani Asset Managers Limited (In formation) and Phoenix Players Limited.

Mr. Nandi holds a Master of Business Administration degree and a Bachelor of Laws degree from the University of Nairobi. He also holds a Diploma in Financial Management from the ACCA. In 2011, he was named the Company Secretary of the Year by the Institute of Certified Public Secretaries.

He was appointed to the board of the Communications Authority of Kenya on 29thApril, 2016 for a period of three years.

Mr. Christopher Guyo

Director

Mr. Christopher Guyo is a Human Resource (HR) professional with over 18 years’ experience. He is currently the HR and Administration Director at the Dubai Islamic Bank (DIB) Kenya Ltd (In-Formation), a Subsidiary of DIB- United Arab Emirates (UAE).

Mr. Guyo has previously worked at Barclays Bank of Kenya Ltd. as a Senior HR Business Partner- Retail and Business Banking. He had earlier worked in senior positions at Chevron Kenya Ltd., Kenya Petroleum Refineries Ltd. and PostBank.

He holds an MBA in Human Resource Management from the University of Nairobi, a Bachelor of Education (Arts) degree from Moi University, Higher National Diploma in HRM, Practitioners Diploma in Executive Coaching from Academy of Executive Coaching, an Advanced Certificate in Strategic HR Management from Cornell University, USA. He is currently pursuing a Doctorate degree in Business Administration at the Catholic University of Eastern Africa

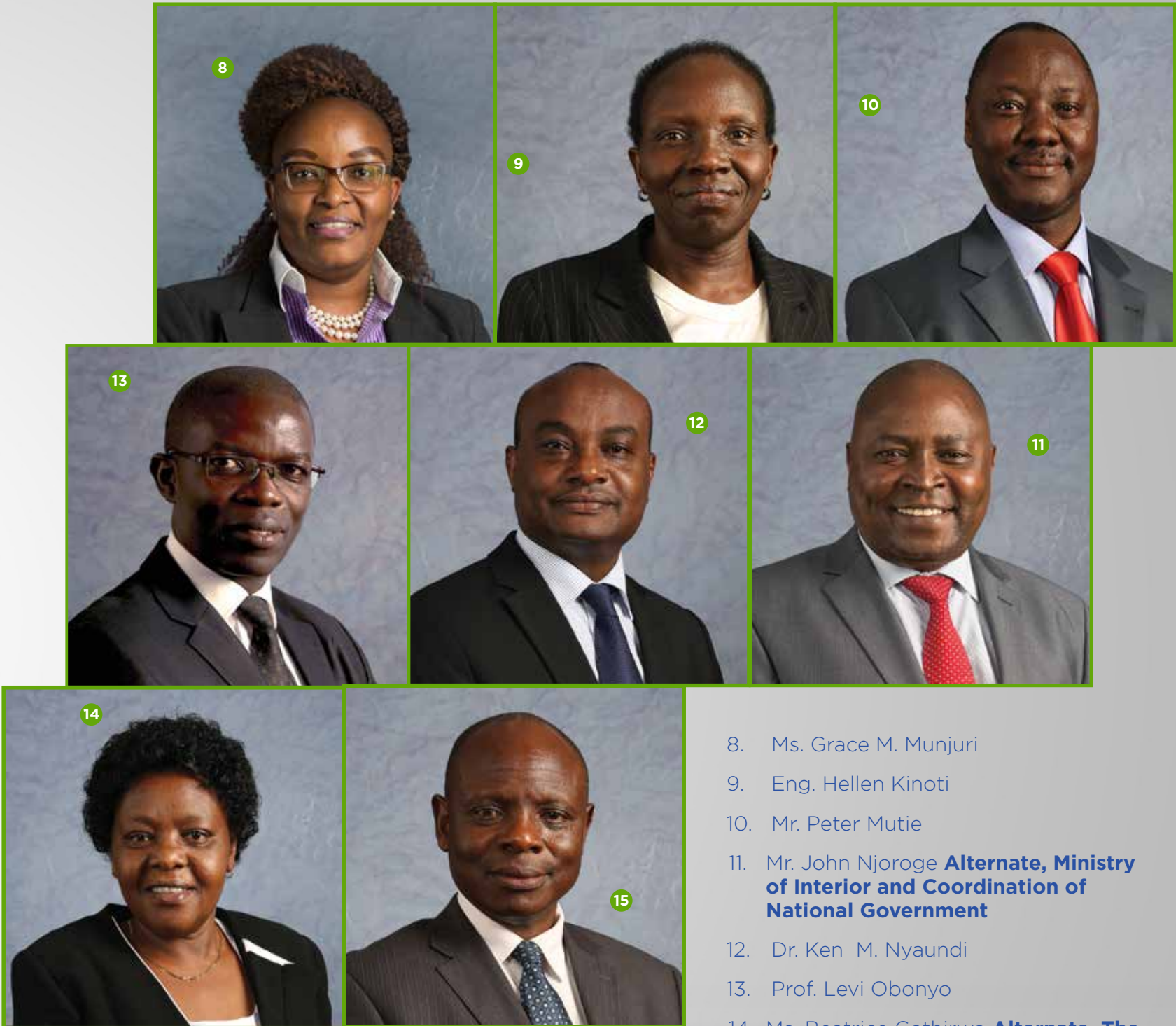
Mr. Guyo is a member of the Institute of Human Resource Management (IHRM) - Kenya and a HR Council member for the Kenya Institute of Management.

He was appointed to the Communications Authority of Kenya board on 29th April 2016 for a period of three years.

Previous Board Members who served from
May 2014 to February 2016



1. Mr. Ngene B. Gituku - **Chairman**
2. Mr. Francis W. Wangusi, MBS - **Director General**
3. Ms. Beatrice O. Opee
4. Amb. Dr. Monica K. Juma, MBS- PS, Ministry of Interior and Co-ordination of National Government
5. Dr. Kamau Thugge, EBS- **PS, The National Treasury**
6. Mr. Joseph Tiampati ole Musuni - **PS, Ministry of ICT**
7. Mr. Wilbert Kipsang Choge



8. Ms. Grace M. Munjuri
9. Eng. Hellen Kinoti
10. Mr. Peter Mutie
11. Mr. John Njoroge **Alternate, Ministry of Interior and Coordination of National Government**
12. Dr. Ken M. Nyaundi
13. Prof. Levi Obonyo
14. Ms. Beatrice Gathirwa **Alternate, The National Treasury**
15. The late Mr. Brown Otuya **Alternate, Ministry of ICT**

Previous Directors’ Biographies

Mr. Ngene B. Gituku

Chairman of the Board

Mr. Ngene B. Gituku is the Chairman of the Board of Directors of the Communications Authority of Kenya. Prior to his appointment, he served as the immediate past Chairman of the Board of the then Communications Commission of Kenya (CCK). He holds a BSc. Degree in Mathematics and Meteorology from the University of Nairobi and Diploma in Marketing. He was appointed to the position on 23rd May, 2014 for a three-year term

Mr. Joseph Tiampati Ole Musuni

PS, Ministry of Information, Communications and Technology

Mr. Joseph Tiampati ole Musuni was the Principal Secretary, Ministry of Information, Communication and Technology (MoICT). He served in the Communications Authority of Kenya Board as Principal Secretary in the Ministry of ICT a position he held between 27th June, 2013 and 26th November, 2015.

Amb. Dr. Monica Juma, MBS

PS, Ministry of Interior and Coordination of National Government

Amb. Monica Juma was the Principal Secretary in the Ministry of Interior and Coordination of National Government. She served in the Communications Authority of Kenya Board in her position as Principal Secretary in the Ministry of Interior and Coordination of National Government.

Amb. Dr. Juma holds a Doctorate of Philosophy (PhD) from the University of Oxford, Master of Arts (MA) and Bachelor of Arts (BA) from the University of Nairobi and Certificate in Refugees Studies from Oxford University.

She held the position between 14th August, 2014 and 12th January, 2016

Dr. Kamau Thugge, EBS, MBS

Dr. Kamau Thugge is the Principal Secretary at the National Treasury. He was appointed to this position on 27th June, 2013. He served on the Communications Authority of Kenya Board in his position as Principal Secretary at the National Treasury.

Dr. Thugge holds a Doctorate of Philosophy (PhD) in Economics from Johns Hopkins University, Master in Economics from Johns Hopkins University, USA and Bachelors of Arts (Economics) from Colorado College, USA.

Mr. Francis W. Wangusi, MBS

Director General

Mr. Francis W. Wangusi is the Director-General of the Communications Authority of Kenya. He was appointed to the position on 21st August 2012 for a period of three years. His term was renewed on 21st August 2015 for a period of four years as per the amended Act.

Mr. Wangusi holds a Masters degree in Space Sciences with specialization in Satellite Communications from the International Space University, France; a BSc in Telecommunications Engineering from the University of Rome, Italy and a Chartered Engineer Part II Certificate from the Institute of Electronics Engineering, UK. He is also a holder of Global Executive Masters Degree in Business Administration (GEMBA) from the United States International University (USIU).

Mr. Wilbert Kipsang Choge

Mr. Wilbert Kipsang Choge was appointed to the Communications Authority of Kenya board on 20th May, 2014 for a three-year term. He has vast experience in the telecommunications and ICT sector having worked for the defunct Kenya Posts and Telecommunications Corporation (KP&TC).

He holds a M.Sc in Telecommunications and a B.Sc (Hons.) in Electronics from Manchester University (UK).He served until February 2016.

Prof. Levi Obonyo

Prof. Levi Obonyo is an Associate Professor of Communication and Media Studies, and also the Dean of the School of Communication, Language and Performing Arts at Daystar University.

Prof. Obonyo holds a PhD in Mass Media and Communications from Temple University Philadelphia, USA. He also holds a Post Graduate Diploma in Tertiary Education from Potchefstroom University for Christian Higher Education, South Africa.

He was, until recently, the Chairman of the Media Council of Kenya. He currently serves as a member of the Advisory Council to Kenya National Commission to UNESCO specializing on communications.

He was appointed to the position on 20th May, 2014 and served until February, 2016.

Previous Directors’ Biographies

Ms. Grace M. Munjuri, MPRSK

Ms. Grace Munjuri has wide experience in incorporating Communications for Brand Positioning, Public Relations, Media Relations, Government & Stakeholder Relations, Marketing and Communication for Advocacy. She has served in the Media Council of Kenya as a council member. She is the current Vice Chair of the Public Relations Society of Kenya (PRSK).

She holds a Master of Arts degree in Corporate Communications from Daystar University, and Bachelor of Commerce (Marketing) degree from Kenyatta University.

She was appointed to the position on 20th May, 2014 and served until February 2016.

Mr. Peter Mutie

Mr. Peter Mutie is a communications specialist with experience spanning over two decades. He has served as the Chief Executive Officer of Kenya Film Commission and is also a founder member of Brand Kenya and Media Council of Kenya.

He holds a Master in Business Administration (MBA), BA (Econ) and a Post Graduate Diploma in Mass Communication.

He was appointed to the position on 20th May, 2014 and served until February, 2016.

Dr. Ken M. Nyaundi

Dr. Ken Nyaundi is a legal practitioner with experience spanning over two decades. He has over the years distinguished himself in civil litigation, commercial transactions, property and conveyance and public law, particularly international human rights and constitutional issues. He is also a chartered arbitrator.

He holds a Master of Laws in Public International Law, from the University of Cape Town, South Africa. He also holds a Doctorate of Philosophy (PhD) in International Law from the University of Cape Town in South Africa.

He was appointed to the position on 20th May, 2014 and served until February 2016.

Eng. Helen Kinoti

Eng. Kinoti is a telecommunications expert and has been part of the transformation in the ICT sector in Kenya for close to three decades. She worked for the defunct Kenya Posts and Telecommunications Corporation (KP&TC) and Telkom Kenya Limited.

Eng. Kinoti holds a Master’s degree in Business Administration (MBA) from the University of Free State (UOFS), South Africa and a Bachelor’s degree- Electrical Engineering from University of Nairobi. She is a member of Institution of Engineers of Kenya (IEK), Engineers Registration Board (ERB) and the Kenya Society of Electrical and Electronic Engineers (KSEEE).

She was appointed to the position on 20th May 2014 and served until February 2016.

Ms. Beatrice Opee

Ms. Beatrice A. Opee is a Telecommunications Specialist with extensive ICT regulatory experience. She holds a Master of Science degree in Telecommunications from the State University of New York Institute of Technology (SUNYIT) and a Bachelor of Science degree in Computer Science from Middle Tennessee State University (MTSU). She has worked closely with Federal Communications Commission (FCC) on behalf of various New York state public safety agencies.

Ms. Opee served as a Board Member of the former Communications Commission of Kenya between February 2012 and April 2014. She was re-appointed on 20th May 2014 and served until February 2016.

Members of Universal Service Advisory Council (USAC)



Left to Right: Michael Maina Itote, Kennedy Okong'o, Nixon Mageka Gecheo, Josephine Towett, Amb Wellington Pakia Godo, Dr. Catherine Ngahu (Chairperson), Samuel Gitonga Mutungi, Rodah Awinja Masaviru, James Long'ole Wangiros

Management Team



1. Mr. Francis W. Wangusi MBS - **Director General**
2. Mr. John Omo - **Director: Legal Services**
3. Mr. Matano Ndaro - **Director: Competition, Tariffs and Market Analysis**
4. Mr. Juma Kandie **Director: Human Capital & Administration**
5. Mr. Tom M. Olwero - **Ag. Director: Frequency Spectrum Management**
6. Mr. Christopher Kemei - **Director: Licensing, Compliance and Standards**
7. Mr. Michael Katundu - **Director: Information Technology & Enterprise Resource Management**



8. Mr. Vincent Ngundi - **Assistant Director: Cyber Security and E-Commerce**
9. Mr. Christopher Wambua - **Ag. Director: Consumer and Public Affairs**
10. Mr. Maxwell Mogaka Mosoti - **Ag. Director: Finance and Accounts**
11. Mrs. Joyce Nyanamba - **Assistant Director: Procurement**
12. Mr. Joseph Kirui - **Ag. Director: Risk Management and Internal Audit**
13. Eng. Leo Boruett - **Director: Multimedia Services**



Ngene B. Gituku

Chairman of the Board



The Authority has not only created an enabling environment that has seen more players enter the ICT market, but also facilitated the roll out of the requisite infrastructure that has enhanced business in the ICT sector. As a result, the uptake of Internet has grown exponentially.

Chairman's Overview

It is with great pleasure that I present the Authority's Annual Report for the year ended 30th June 2016 on behalf of the Board of Directors, Management and staff of the Communications Authority of Kenya (Authority) and in accordance with Section 22 (1) of the Kenya Information and Communications Act, 1998.

As the ICT Sector regulator, the Authority has continued to create an enabling environment that has seen the progressive growth of the sector. The Authority, as part of its strategic objective as contained in the Strategic Plan and Performance Contract for the year 2015/2016, embarked on and concluded the review and development of Regulations which were uploaded to the Authority's website. During the year 2015/2016, three (3) sets of regulations were reviewed and three new sets of regulations developed as envisaged under the Kenya Information and Communications Act, 1998 as amended in 2013.

The Authority is entrusted with the responsibility of managing radio spectrum, which is a scarce natural resource that must be managed prudently for the benefit of the country. The use of radio spectrum is very dynamic and as a regulator we are continuously investing in progressive tools to enable us keep up with this dynamism. The Authority upgraded the Spectrum Management and Monitoring System (SMMS), during the year under review. With the upgrade of the SMMS, the Authority now owns an integrated tool for spectrum planning, technical analysis, international coordination and notification, in support of frequency allocation, assignment and licensing. To enhance the Authority's capabilities for Monitoring and Measurement of the technical parameters of emissions of radio communication stations, the SMMS has also been upgraded and expanded to eight V/U/SHF Fixed Monitoring and Direction Finding Stations, three HF Fixed Monitoring Stations and four V/U/SHF Mobile Monitoring and Direction Finding Stations installed aboard the vehicles. Most importantly, this upgrade is expected to improve the Authority's service delivery to radio spectrum users through effective planning and efficient processing of radio spectrum application licences and faster resolution of radio interference complaints.

This year also saw the launch of an automated mail quality measurement system that opens a digital approach to monitoring quality of service for the postal sector in Kenya. The Radio Frequency Identification (RFID) System determines Quality of Service (QoS) by monitoring test letters containing transponders at key points in post offices in the mail processing pipeline. It is noteworthy that Kenya is the first country in Africa to use RFID based mail measurement technology for regulatory purposes under the coordination of the UPU. This feat was achieved through signing of a cooperation agreement between the UPU and the Authority.

It is also notable that the Authority has not only created an enabling environment that has seen more players enter the ICT market, but also facilitated the roll out of the requisite infrastructure that has enhanced business in the ICT sector. As a result, the uptake of internet has grown exponentially. Other factors fuelling the fast growth and uptake of internet in Kenya includes a conducive policy, legal and regulatory framework, and an aggressive government strategy to improve international internet connectivity, which has in turn made internet more affordable and accessible.

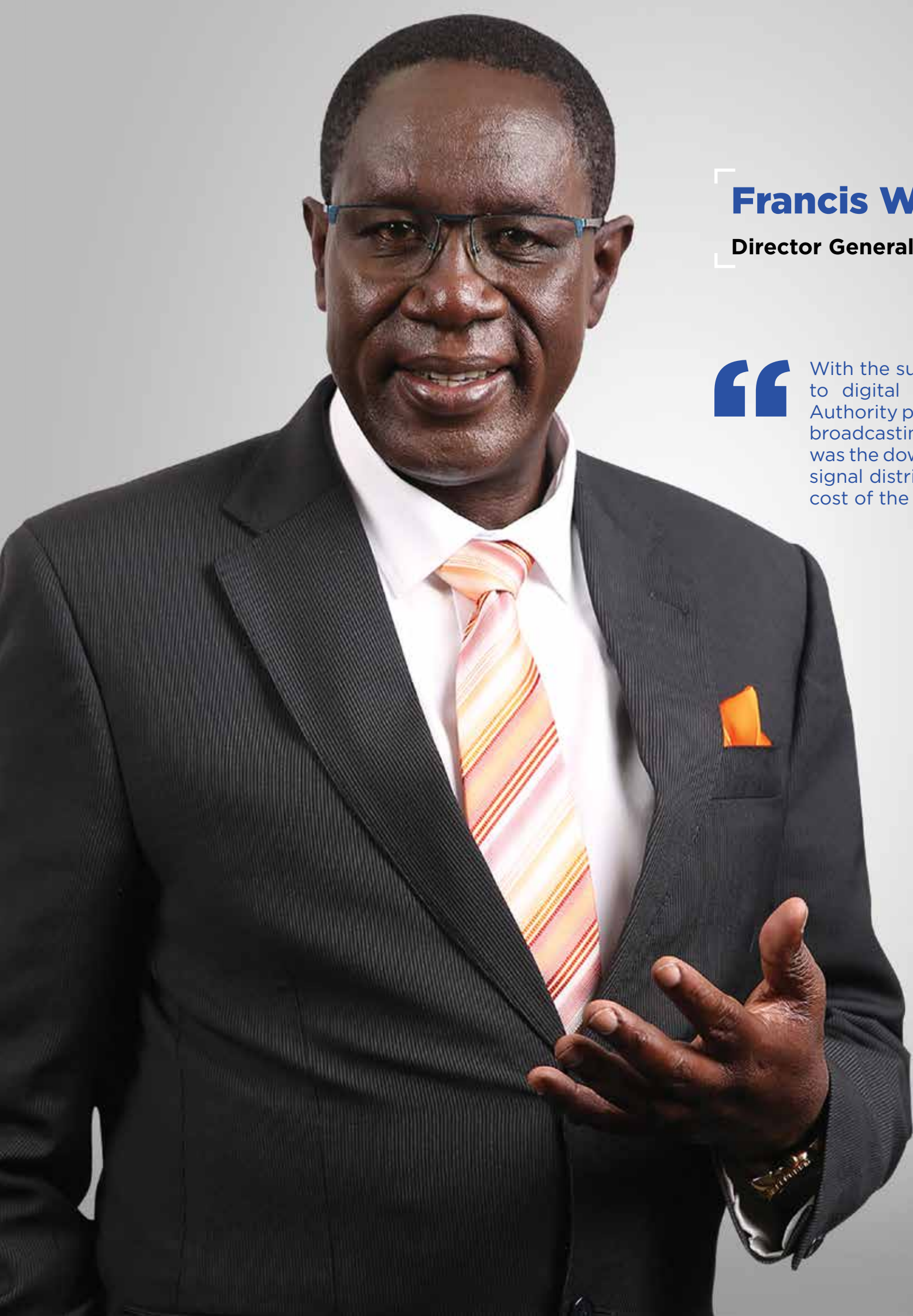
The increasingly affordable smart devices, growth and popularity of social media and adoption of online services by both the private and public sectors also support this scenario. According to the Access Gap Study, commissioned by the Authority and the Report released in April 2016, 94.4 per cent of the Kenyan population has access to 2G network services whereas 78 per cent of the population has access to 3G services. The expansion of 3G services in the country explains the enormous use of mobile data/internet services. The international internet bandwidth leased and used has also - shot up as a result of increased demand for faster and more reliable data/internet services. This is expected to rise even more in the coming year as most businesses and institutions strive to offer their goods and services on e-platforms.

In conclusion, the milestones achieved in the year 2015/2016 shows the Authority's commitment towards transforming the lives of Kenyans through the continuous facilitation of an enabling environment for provision of quality services in the ICT sector. This will greatly benefit consumers as well as increase the sectors contribution to the country's GDP.

I commend the determination of the Board, Management and members of Staff at the Authority for their resilience to deliver and the achievements thereof. I look forward to an even more exhilarating 2016/17 in the ICT sector.

Ngene B. Gituku

Chairman of the Board



Francis W. Wangusi, MBS

Director General

“ With the successful migration from analogue to digital broadcasting in June 2015, the Authority put its focus on the uptake of digital broadcasting services. One of the initiatives was the downward review of the broadcasting signal distribution tariffs to align them to the cost of the networks.

Director General's Word

Kenya's ICT sector has continued to demonstrate strong performance in what is now commonly understood to be a vibrant environment. ICT remains a critical component of Kenya's economic growth.

The Economic Survey 2016 published by the Kenya National Bureau of Statistics indicates that the value of ICT output increased by 8.1 per cent to stand at KES 280.0 million in 2015 compared to KES 259.0 million in 2014. The value of ICT goods exported increased by 64.1 per cent to KES 2.1 billion in 2015 compared to KES 1.3 billion in 2014.

The exponential growth that we have witnessed in the ICT sector in Kenya can mainly be attributed to progressive regulatory measures, consultations and constant engagement with all players in the industry.

The sector equally witnessed increased access to services in various respects. By the close of the year, mobile penetration increased to 90 per cent, edging closer to the average global penetration rate, which stood at 98.6 per cent at the end of 2015. Broadband subscriptions rose to 10.9 million having grown by 104 per cent, in one year a leap that is mainly attributed to mobile broadband subscriptions.

Most Kenyans continue to access the internet through mobile phones as opposed to computers. Internet users in the year reached 37.7 million representing a 27 per cent growth and 85 per cent penetration. Over time people's lives are being transformed with the uptake of internet in the country as evidenced from heavy usage by enterprise and government through integration of ICT into service provision.

The Authority initiated a number of processes to lay ground for greater growth of the sector especially in areas that are still nascent. This included the procurement of a Numbering Resource Management System (NMS) to improve on data integrity in the allocation, reservation, assignment and reclamation of numbering resources.

With the successful migration from analogue to digital broadcasting in June 2015, the Authority put its focus on the uptake of digital broadcasting services. One of the initiatives was the downward review of the broadcasting signal distribution tariffs to align them to the cost of the networks. Additionally, the Authority installed and deployed a new Spectrum Management and Monitoring System (SMMS) in order to boost its capacity in management of the scarce resource. With new system, the Authority will now be able to cover a larger geographical area with higher efficiency and accuracy in frequency licensing and billing. The Authority also initiated the development of the Programming Code for Free-To-Air Broadcasting services in Kenya, a step that is envisaged to increase local programming.

One of the priorities in line with our core mandate is consumer protection. Apart from awareness campaigns in specific areas of interest to the consumer, the Authority held five interactive consumer forums across the country. This is an ongoing initiative within which the Authority intends to reach out to more consumers in all parts of the country to educate them on the rights and responsibilities.

As the tech sector expands, we maintain our quest to bring more into the digital universe and pursue our vision to ensure access of ICT services by all in Kenya by the year 2018. We rely not only on the internal resources but also on collaboration with other stakeholders to deliver on this vision. That notwithstanding, indeed the achievements realized would not have been realized without the dedication of staff at the Authority. I also truly appreciate the support that we received from the Board of Directors and our parent Ministry of Information, Communication and Technology. We look forward to a vibrant oncoming year as the sector diversifies and burgeons

Francis W. Wangusi, MBS

Director-General

Preamble

This report provides the performance of the Communications Authority of Kenya (the Authority) for the financial year 2015/2016 (1st July, 2015 to 30th June, 2016) in compliance with the requirements of the Kenya Information and Communications Act, 1998 (KICA).

Constitutional Mandate

Pursuant to Articles 34 and 35 of the Constitution of Kenya, 2010, on freedom of media and access to information, KICA was amended in 2013 to confer the Authority greater operational autonomy in the implementation of its mandate. In Accordance with the said Articles, the Authority;

- Is independent of control by government, political - and commercial interests;
- Reflects the interests of all sections of the society; and
- Sets media standards, regulates and monitors compliance with those standards.

Statutory Mandate

The Communications Authority of Kenya (CA) was established in 1999 pursuant to the Kenya Communications Act No.2 of 1998, to licence and regulate telecommunications, radio communications and postal services. The Kenya Information and Communications Act, 1998 has since been amended a number of times, notably in 2009 to expand the Authority's role to licence and regulate the broadcasting and e-commerce sectors and in 2013 to bestow upon the Authority more independence in the execution of its obligations.

The Authority is entrusted with the responsibility of facilitating - development of the postal and courier, telecommunications, radio communications, broadcasting and electronic transactions sub-sectors in Kenya through adoption of best practice and most appropriate technologies.

Review and development of Sector Regulations

Following the enactment of the 2013 KICA Amendment Act, the Authority embarked on the review of the KICA Regulations 2010 to align them with the new regulatory framework. Consequently, during the FY 2014/2015 the Authority reviewed 10 sets of Regulations. These Regulations are currently resident with the Attorney General for further input and legislative drafting.

During the year under review, the Authority further reviewed three additional sets of regulations namely:

- a) Kenya Information and Communications (Broadcasting) Regulations, 2009
- b) Kenya Information and Communications (Universal Access and Service) Regulations, 2010.
- c) Kenya Information and Communications (Electronic Certification and Domain Name Administration) Regulations, 2010.

Simultaneously, the Authority developed three (3) new sets of regulations envisaged under the Kenya Information and Communications Act, 1998 as amended in 2013 namely:

- a) Kenya Information and Communications (Infrastructure Sharing) Regulations
- b) Kenya Information and Communications (Cyber Security) Regulations
- c) Kenya Information and Communications (Electronics Transactions) Regulations.

The six (6) sets of Regulations have since been forwarded to the Cabinet Secretary, MoICT for promulgation.

Corporate Governance Report

a) Composition of the Board

The Kenya Information and Communications Act, 1998 as amended in 2013 vests the management of the Authority on the Board, which is composed of:

- i. A chairman appointed by the President;
- ii. The Principal Secretary responsible for matters relating to broadcast, electronic, print and all other types of media;
- iii. The Principle Secretary responsible for matters relating to finance;
- iv. The Principle Secretary responsible for matters relating to internal security; and
- v. Seven persons appointed by the Cabinet Secretary.

The Director General is the Chief Executive Officer of the Authority, an ex-officio member of the Board and the Secretary to the Board. He is, on behalf of the Board, responsible for the day-to-day affairs of the Authority.

b) Functions of the Board

The functions of the Board are contained in the Board Charter, which sets out the specific responsibilities to be discharged by the Board of Directors, individually and collectively. The functions as outlined in the Charter include:

- i. Exercising leadership, integrity and judgement in directing the Authority;
- ii. Setting the vision, mission and values of the Authority;
- iii. Developing strategies to achieve the Authority's mandate;
- iv. Determining key performance indicators of the Authority, setting targets and monitoring performance;

- v. Ensuring that internal structures and policies are in place;
- vi. Identifying and managing key risk areas; and
- vii. Ensuring preparation of annual financial statements and reports and disclosure of information to stakeholders.

c) Board Meetings

According to Section 8 (1) (a) of the State Corporations Act, Cap 446 the Board of every State Corporation should meet at least four times in every financial year. During the period under review, the Board held 13 meetings.

d) Board Committees

Section 9 of the Act bestows the Board with the powers to delegate the exercise of any of its functions or duties to Committees. The Board develops the terms of reference, which the Committees operate within. During the period under review, the Board established the following Committees;

- i. Finance & Risk Management Committee
This Committee has oversight responsibility on all financial issues and Risk management at the Authority. It consists of six members and held seven meetings in the year.
- ii. Technical Matters Committee
This Committee handles regulatory issues including granting of licences, review of the market structure and other regulatory interventions. It consists of six members and held seven meetings in the year.
- iii. Staff & Administration Committee
This Committee is responsible for human resource and administrative matters. It consists of six members and held five meetings in the year.
- iv. Broadcasting Standards Committee
This Committee is responsible for setting media standards, and ensuring compliance with those standards. It consists of six members and held three meetings in the year.
- v. Audit Matters Committee
This Committee oversees development of internal control systems and reviews audit reports. It consists of three members and held three meetings in the year.

e) Universal Service Advisory Council

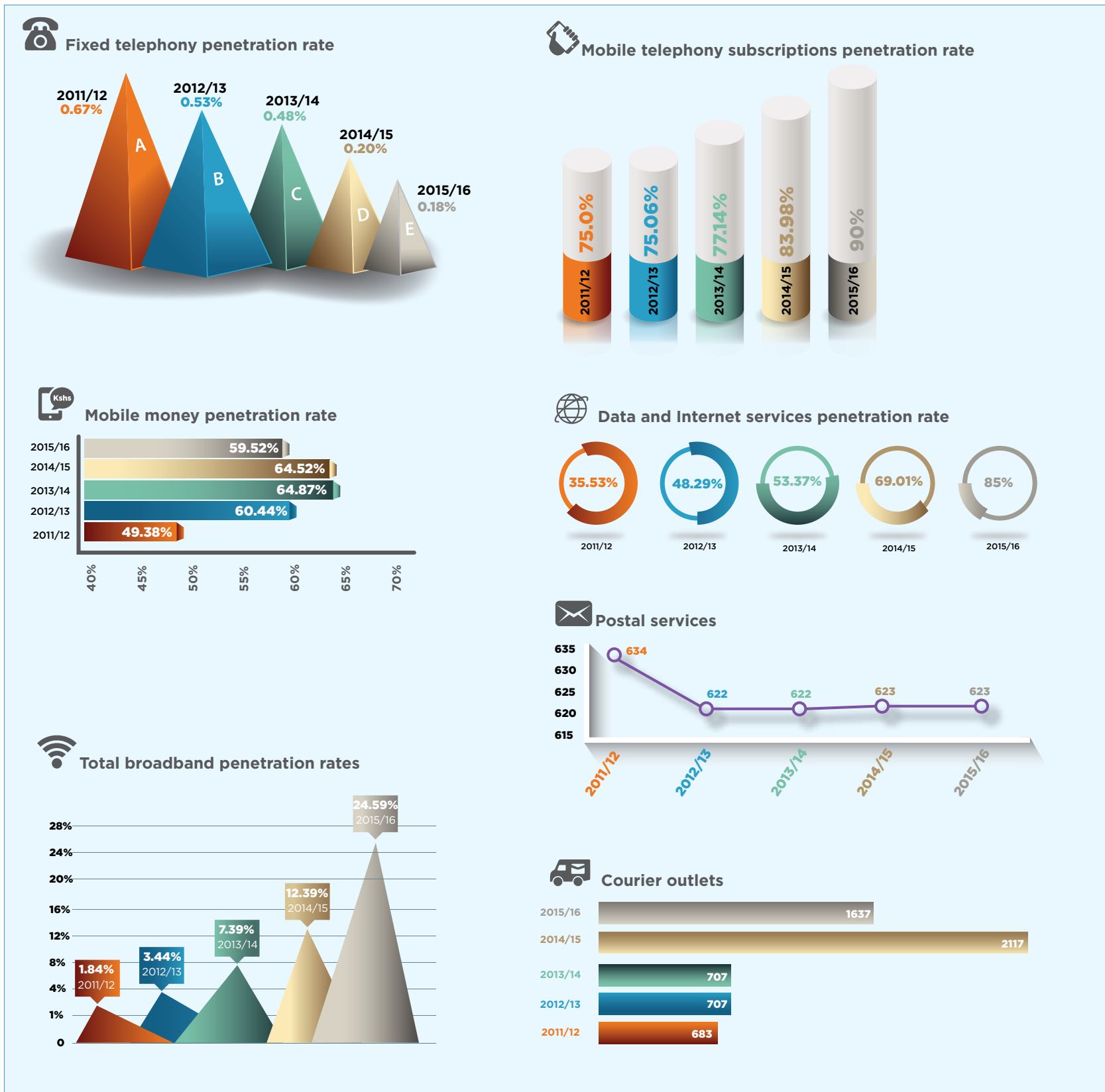
The Universal Service Advisory Council (USAC) is established under KICA to provide advisory services to the Authority and provide strategic policy guidance for the administration and implementation of the Universal Service Fund. The council consists of a chairperson and eight members appointed by the Cabinet Secretary.

f) Capacity Building

The previous Members of the -Board of Directors who held positions from July 2015 to February 2016 were trained on Mwongozo, the Code of Governance for State Corporations. They also attended various training programmemes, conferences and workshops aimed at enhancing their understanding of the Authority's mandate and the ICT business environment. These included, training on effective Boards; ITU Telecom World 2015, 2015 session of the UPU Council of Administration, GSMA Mobile World Congress and Ministerial Programmeme, Broadband for all & Smart Africa Alliance Seminars, and the 2nd Commonwealth ICT Ministers Forum 2016.

The current Board of Directors is yet to undergo the training on the Mwongozo Code of Governance.

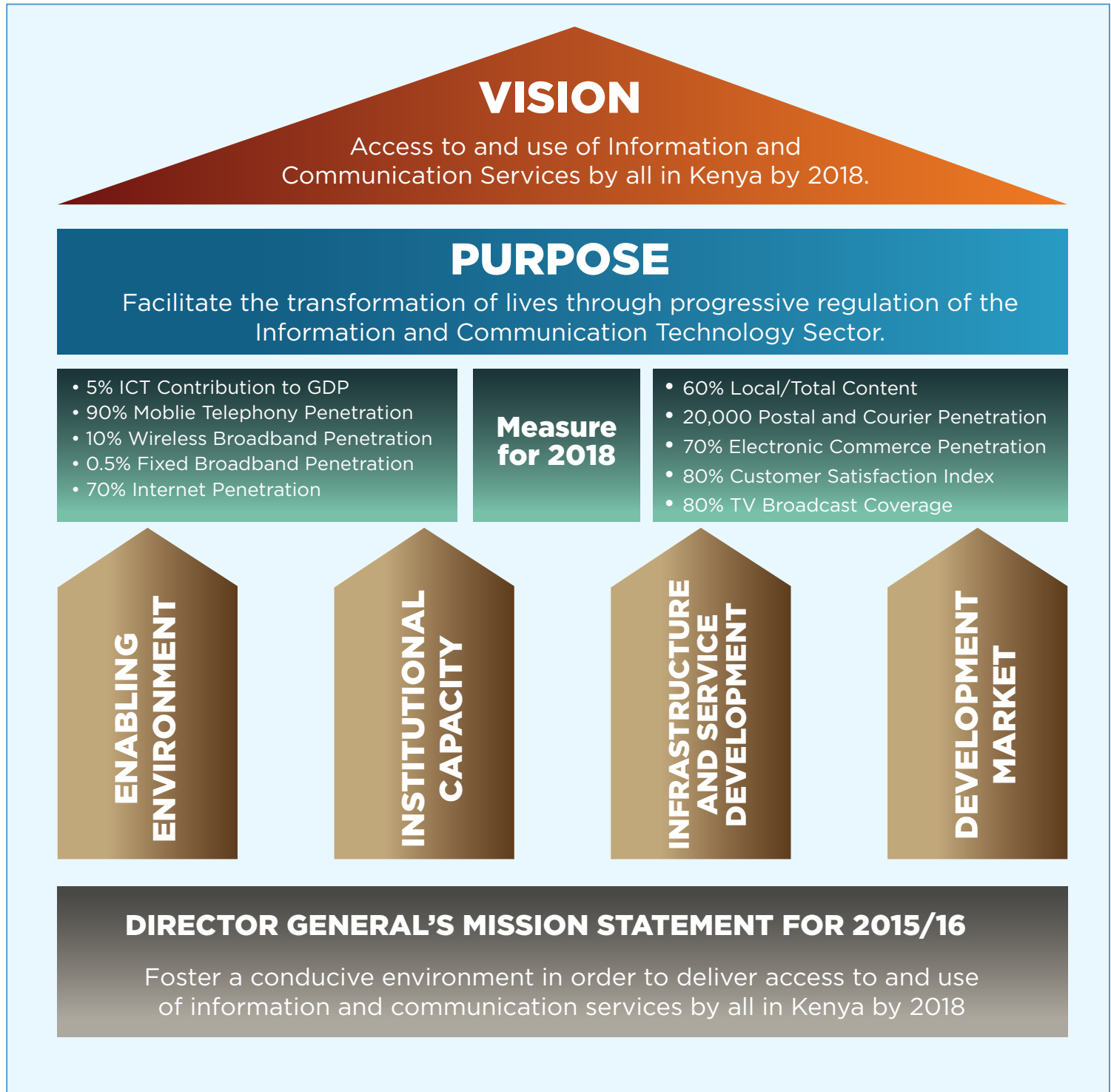
Sector Statistics at a Glance



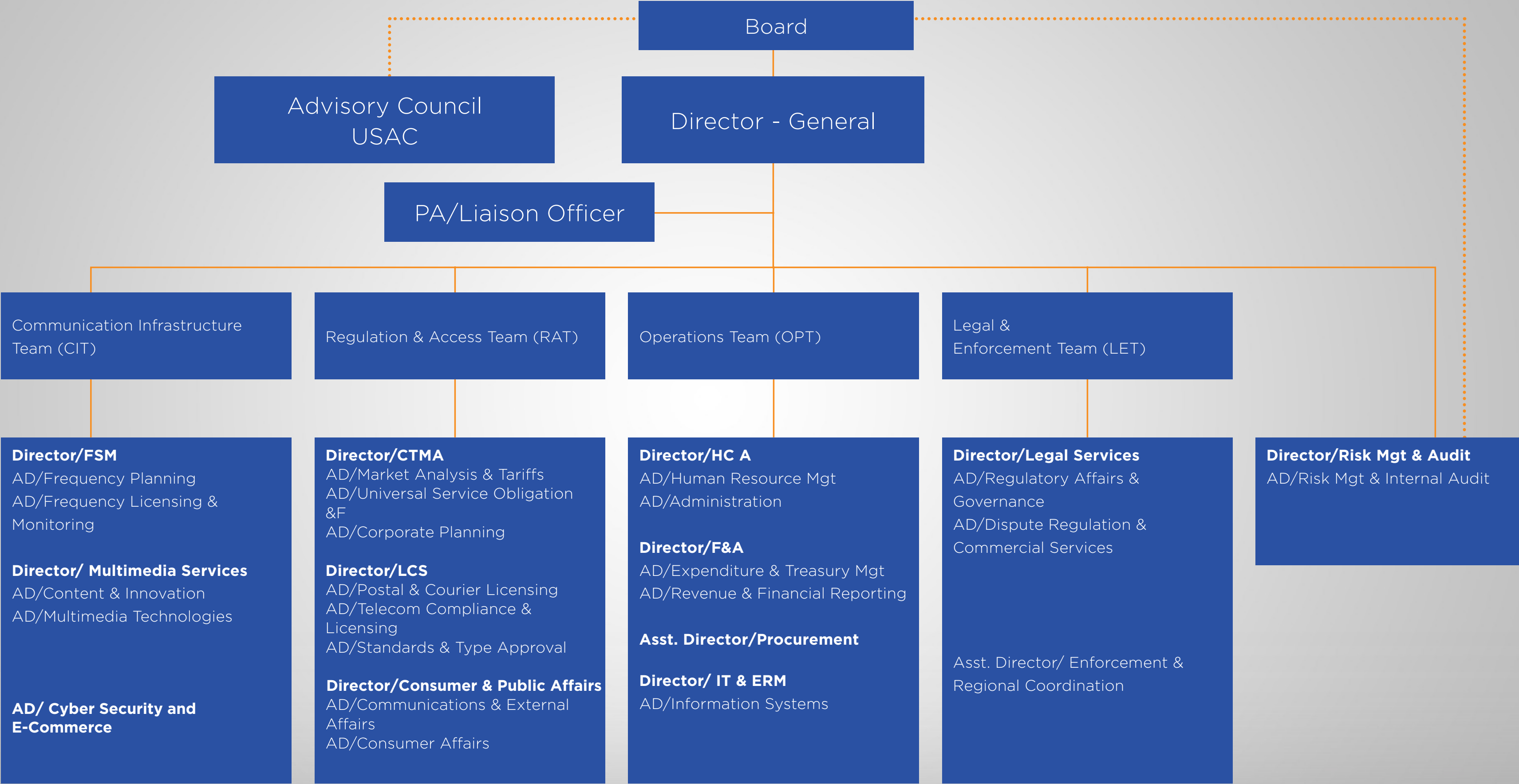
Strategic Plan (2013-18)

The plan articulates a comprehensive roadmap for the period 2013-18 while outlining short and medium term strategies and activities. The implementation of these strategies is aimed at stimulating further development of the ICT sector and spurring uptake of communication services in the country.

The plan identifies the measures of success and the key pillars as illustrated below.



Organizational Structure



Advisory Councils - advise the Board and their meetings are dependent on request by the Board on specific issues

CHAPTER 1

MACROECONOMIC ENVIRONMENT

1 MACROECONOMIC ENVIRONMENT

1.1 Global Economy

According to the Global Competitiveness Report, 2016, the world is evolving against the background of the “new normal”, which is characterized by lower economic growth, lower productivity growth and high unemployment. In spite of a tightened financial measures by the Central Banks in advanced economies, recovery in the global economy has been subdued by global assets volatility, plummeting global markets, economic slowdown in emerging markets, geopolitical tensions and conflicts around the world, and the growing humanitarian crisis.

In the year 2015, the expansion in the real Gross Domestic Product (GDP) declined marginally, and grew by a rate of 3.1 per cent compared to 3.7

per cent recorded in 2014, according to the World Economic Outlook (WEO) Report, 2016 by the International Monetary Fund (IMF). Further, advanced economies recorded a growth of 1.9 per cent in the year 2015, and this growth rate is projected to persist to the end of 2016. Growth in these economies is largely attributed to the strengthening of financial markets in advanced economies, due to stabilization of oil prices, lower capital outflows from China and major decisions by central banks in these economies. Policy discussions in both Europe and the United States of America are more inward looking, for instance the recent changes in the European Union (“BREXIT”), which could have major implications on regional and trading relationships.

Emerging markets and developing economies grew by 4.0 per cent in 2015, which accounted for the lion's share of the global economic growth. According to the African Economic Outlook (AEO) Report 2016, Africa's real GDP grew by 3.6 per cent, and this resilience in growth is partly owed to domestic factors such as private consumption, public infrastructure development and private investment. The global economic environment has affected African countries disparately with revenues in resource rich countries dropping due to the fall in commodity prices, whilst oil-importing countries are benefiting from lower inflation and less pressure on current accounts. Africa's continued growth hinges on the strength of the world economy and gradual recovery in commodity prices.

Solid growth rates witnessed in Sub-Saharan Africa over the past 15 years are a testament to the region's growth potential. Sub-Saharan Africa (excluding South Africa) grew faster than the continental average at 4.2 per cent in 2015. Average economic growth for the whole of Sub-Saharan Africa stood at 3.6 per cent according to the AEO Report, 2016.

According to Kenya's Economic Survey 2015, real GDP in the East African Community (EAC) declined to 3.4 per cent in 2015 compared to 5.8 per cent recorded in 2014. This was attributed to slow down in growth in Tanzania due to uncertainties emanating from general elections, and contraction in Burundi's economy due to political instability experienced during 2015. Inflation in EAC eased marginally to 5.5 per cent in 2015 compared to 5.6 per cent experienced in 2014.

Global economic prospects for 2016 remain subdued and burdened with risks of downward growth. The world's real GDP is estimated to grow at 3.2 per cent, and will be dependent on enhanced monetary policies supported by other policies that directly boost supply and demand. There is indeed increased need for collaboration between countries in order to raise growth and manage vulnerabilities.



1.2 Global Information and Communication Technology Industry

ICTs continue to be a key cornerstone in global developmental and growth agendas. The rapid diffusion of ICTs (dubbed the “fourth industrial revolution”) has given rise to new business models and revolutionized all industries. This bears great promise for future innovations that could drive long-term economic growth. ICTs also play a key role in facilitating attainment of the Sustainable Development Goals (SDGs)¹.

The mobile ecosystem is a major driver of economic progress and welfare globally. There were 7.2 billion mobile cellular subscriptions as at the end of 2015, corresponding to a penetration rate of 98.6 per cent, up from 7 billion recorded in 2014. The Commonwealth of Independent States (CIS) recorded the highest mobile penetration rate in 2015 to stand at 142.8 per cent, followed by Europe, the Americas, Arab States, Asia-Pacific and Africa, which stood at 119.8 per cent, 111.8 per cent, 110.5 per cent, 93 per cent and 76.2 per cent, respectively, during the same period.

Mobile broadband continued to be the most dynamic market segment, due to increased coverage currently standing at two thirds of the global population and increased affordability. Globally, mobile broadband subscriptions expanded in 2015 and recorded a penetration rate of 44.2 per cent up from 36.7 per cent recorded in 2014. Europe and the Americas commanded the highest mobile broadband penetration rates to stand at 72.8 per cent and 74.6 per cent respectively in 2015, while Africa's penetrations are still significantly lower in comparison and stood at 19 per cent by the end of 2015. On the other hand, fixed broadband subscriptions remain persistently lower than one per cent.²

By the end of 2015, there were over 3.2 billion Internet users, up from 2.9 billion³ recorded at the end of 2014. Internet penetration rates in developing countries grew moderately by 3.6 per cent in 2015 to stand at 36.7 per cent. Africa's Internet penetration rate stood at 22.5 per cent in 2015 up from 19.6 per cent recorded in 2014, which was the lowest in comparison to other regions in the world. Households' access to Internet in Africa also increased moderately by 2.1 per cent to stand at 11.1 per cent in 2015. According to the 2016 ICT Facts report by the ITU, close to one out of two people (47%) in the world use the Internet. However, in the Least Developed Countries (LDCs) only one out of seven people use the Internet. This is largely attributed to inadequate international connectivity in the internet infrastructure.

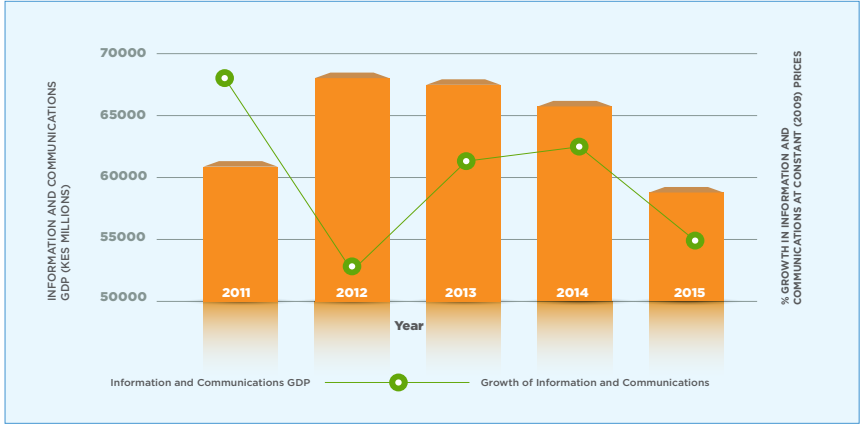
1 <https://sustainabledevelopment.un.org/sdgs>
2 <http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>
3 <http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>

Increased uptake of ICTs in Africa continued to be facilitated by the proliferation of mobile telephony services. By the end of the year 2015, unique mobile subscriber penetration was at 43 per cent, up from 39 per cent recorded in 2014, and is estimated to reach 51 per cent by 2020. Mobile telephony continues to be the major platform through which populations across the region access the Internet as well as mobile money transfer services.

1.3 Local Environment

The 2016 Economic Survey estimated Kenya's Gross Domestic Product (GDP) to have expanded by 5.6 per cent in 2015, which is a slight improvement compared to the 5.3 per cent growth recorded in 2014. A stable macroeconomic environment and improvements in the outputs of agriculture (5.6 per cent), finance and insurance (6.9 per cent), construction (4.8 per cent) and real estate (7.6 per cent) mainly augmented this improvement. Conversely, information and communication, mining and quarrying, and wholesale and retail trade sectors experienced slow growth.

Figure 1.1 Contribution of Information and Communication to GDP vis-à-vis growth in GDP



Source: Communications Authority of Kenya

Growth in the information and communications sector declined by nearly 50 per cent to stand at 7.3 per cent in 2015 from 14.3 per cent recorded in 2014. However, ICTs continue to play a pivotal role in the growth of other sectors. Table 1.1 shows a summary of a selection of economic indicators for the past 5 years.

| Table 1.1 Select economic indicators for the past 5 years | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| Indicator | 2011 | 2012 | 2013 | 2014+ | 2015* |
| Population (Millions) | 39.5 | 40.7 | 41.8 | 43.0 | 44.2 |
| GDP at market prices (in KES .Min.) | 3,725,918.4 | 4,261,150.7 | 4,745,439.2 | 5,398,020.7 | 6,224,369.9 |
| Growth of GDP at Constant Prices (%) | 6.1 | 4.6 | 5.7 | 5.3 | 5.6 |
| GDP Per Capita at Constant Prices (KES.) | 83,297.9 | 84,721.2 | 87,105.4 | 89,240.5 | 91,738.1 |
| Transport and Storage GDP at Current Prices (KES. Millions) | 265,995 | 339,524 | 377,210 | 465,384 | 521,698 |
| Information and Communication GDP (KES. Millions) | 61,381 | 68,437 | 68,299 | 66,310 | 58,721 |
| Information and communication as % of GDP | 1.6 | 1.6 | 1.4 | 1.2 | 0.9 |
| Growth of Information and communications at Constant (2009) Prices (%) | 22.1 | 2.4 | 12.6 | 14.6 | 7.3 |
| Private sector wage employment in Information and communication ('000s) | 78800 | 83900 | 90600 | 97300 | 103800 |
| Public sector wage employment in Information and communication ('000s) | 1700 | 1800 | 1800 | 1800 | 1900 |
| Consumer Prices, Annual Average [Index numbers February 2009=100] | 121.17 | 132.53 | 140.11 | 149.74 | 159.60 |
| CPI Annual Inflation Rate (Overall) % | 14.0 | 9.4 | 5.7 | 6.9 | 7.1 |
| + Revised | *Estimate | | | | |

The slowdown in growth in the ICTs was mainly attributed to the reduced expansion in the telecommunications sub-sector. This was mainly as a result of the exit of one Mobile Network Operator (MNO) in the industry. However, there was resilient expansion in mobile telephony networks as well as increased uptake of Internet services. Mobile telephony subscribers grew by 10.17 per cent to stand at 39.78 million in 2015, corresponding to a 90 per cent penetration rate. Conversely, mobile money subscriptions dropped by 5.18 per cent during the period under review, to stand at 26.3 million subscriptions.

Internet users were estimated at 37,716,579 in FY 2015/16 up from 29,672,419 recorded the previous year, representing a 27 per cent growth and 85 per cent penetration. The growth in the number of subscribers can be attributed to increased roll out of broadband infrastructure and increased appetite for OTT services. Noteworthy, mobile data internet subscription grew by 35 per cent to record 26,758,789 up from 19,809,709 subscribers recorded during the FY 2014/15.

Other ICT subsectors recovered to post a growth of 2.9 per cent in 2015, up from negative 1.8 per cent recorded in 2014. This is partly attributed to the growth in the Broadcasting sub-sector following the successful switchover to digital TV broadcasting technology that resulted in an increase in the number of TV broadcasting stations from 13 analog stations to 63 digital TV broadcasting stations.

1.4 Future Outlook

In the 2015 World Economic Outlook, the IMF projects that the global economy will expand marginally in 2016, and that there is a high risk that global growth projections are susceptible to further depression. However, there may be positive oil supply shocks emanating from projected reduction in oil prices, as well as a modest pick-up in activities of exporters from which Kenya stands to benefit.

The IMF insists that with the threat of a synchronized slowdown and an even higher probability of significant downside risks, short-term domestic macroeconomic policies need to remain supportive of activity and confidence, and that a more proactive multilateral approach to containing downside risks would be desirable. In addition, given the uncertain effects of product and labour market reforms on prices, there is need for strong and credible monetary policy frameworks such as quantitative easing or negative deposit rates.



CHAPTER

2

MANAGEMENT OF SCARCE RESOURCES

2

MANAGEMENT OF SCARCE RESOURCES

2.1

Frequency Management

The Authority is responsible for the efficient utilization of the radio frequency spectrum in Kenya. This resource is held in trust on behalf of the people of Kenya. In its efforts to manage this resource the Authority plans, allocates, assigns, monitors and coordinates the usage of the frequency spectrum.

In the FY 2015/2016, the changes in frequency utilization in Kenya were as follows:

2.1.1

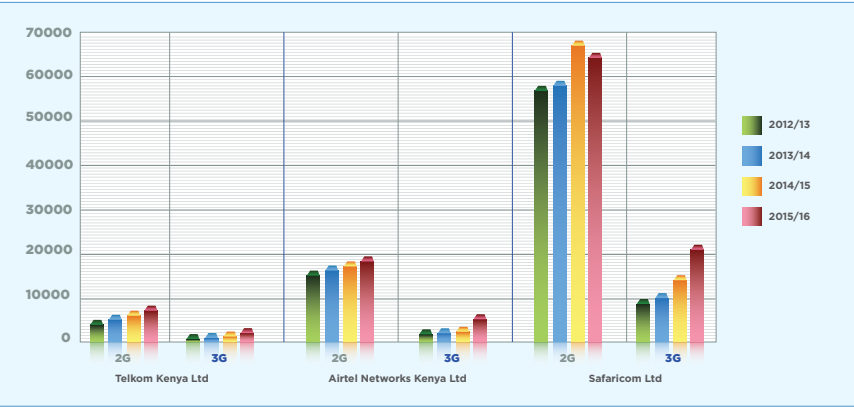
Mobile Cellular Services

There was an increase in mobile cellular network coverage enabling more Kenyans to have access to mobile telephony. The number of 2G and 3G transceivers deployed increased by 2.8 per cent and 60 per cent, respectively. The transceivers deployed for the provision of 2G and 3G services are as shown in Table 2.1 and Figure 2.1.

| Table 2.1 Mobile Cellular Systems | | | | | | |
|-----------------------------------|------------|---------|---------|---------|---------|---------|
| Operator | Technology | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Telkom Kenya Ltd | 2G | 6,230 | 6,391 | 6,903 | 7,631 | 8,594 |
| | 3G | 2,269 | 2,375 | 3,056 | 3,192 | 3,813 |
| Airtel Networks Kenya Ltd | 2G | 13,452 | 14,788 | 15,981 | 16,811 | 18,848 |
| | 3G | 973 | 1,096 | 1,686 | 1,892 | 5,235 |
| Safaricom Limited | 2G | 46,702 | 54,215 | 56,247 | 65,552 | 65,120 |
| | 3G | 7,811 | 9,304 | 10,639 | 14,216 | 21,770 |
| Essar Telecom Kenya Ltd | 2G | 5,500 | 5,500 | 5,500 | - | - |
| | 3G | 0 | 0 | 0 | - | - |
| Total No. of Transceivers | 2G | 71,884 | 80,894 | 84,631 | 89,994 | 92,562 |
| | 3G | 11,053 | 12,775 | 15,381 | 19,300 | 30,818 |

Source: Communications Authority of Kenya

Figure 2.1: Mobile Cellular Systems TRXs



2.1.2

Fixed Links

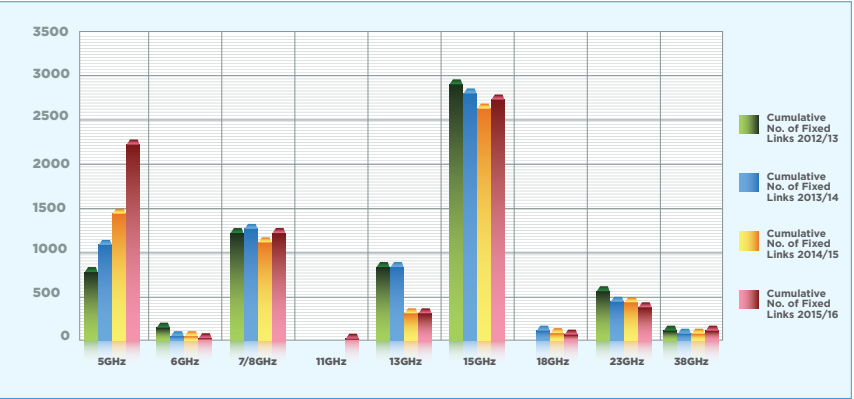
The Authority assigns frequencies for fixed links to telecommunication operators and other users for point-to-point communication. In the year under review, the Authority assigned a total of 977 fixed links, thus bringing the total number of installed fixed links to 7,380. The highest growth was experienced in the unprotected band that is easily deployed.

Table 2.2 and Figure 2.2 show status of fixed links in the country.

| Table 2.2 Fixed Links | | | | |
|-----------------------|-------------------------------|---------|---------|---------|
| Frequency Band | Cumulative No. of Fixed Links | | | |
| | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| 5GHz | 830 | 1144 | 1501 | 2274 |
| 6GHz | 113 | 66 | 66 | 29 |
| 7/8GHz | 1,273 | 1,307 | 1,108 | 1285 |
| 11 GHz | 0 | 4 | 5 | 12 |
| 13GHz | 807 | 798 | 349 | 351 |
| 15GHz | 2,973 | 2,809 | 2,679 | 2763 |
| 18GHz | 8 | 76 | 75 | 59 |
| 23GHz | 533 | 513 | 513 | 481 |
| 38GHz | 118 | 108 | 107 | 126 |
| Total | 5,464 | 6,825 | 6,403 | 7380 |

Source: Communications Authority of Kenya

Figure 2.2: Status of Fixed links in the country as of July 2016



2.1.3

Fixed Wireless Access Services

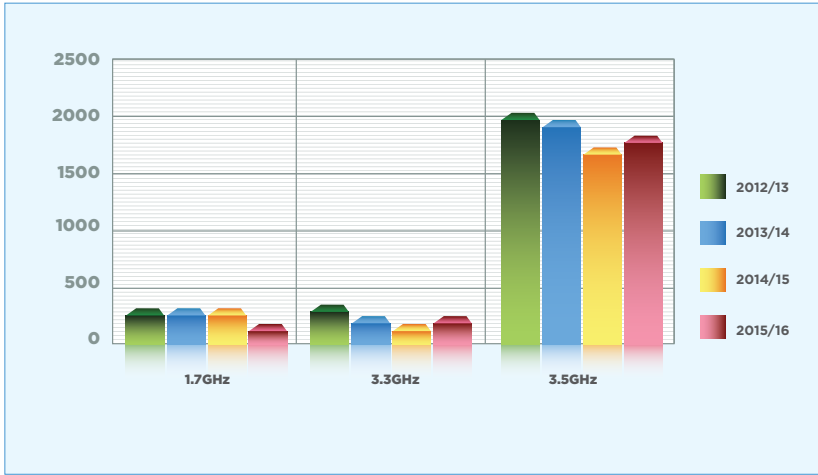
Fixed Wireless Access (FWA) systems provide access to communication services like the Internet by broadcasting a signal. These systems are deployed in the 1.7 GHz, 3.3 GHz and 3.5 GHz frequency bands. There was a four per cent reduction in the number of deployed transceivers from 2169 to 2082. This decrease is mainly attributed to availability of competing technology in the unprotected bands and the preference for robust fiber connectivity in provision of integrated services of voice, video and telephony.

Table 2.3 and Figure 2.3 show the status of Fixed Wireless Access Systems.

| Table 2.3 Fixed Wireless Access Systems | | | | | |
|---|------------------------|---------|---------|---------|---------|
| Frequency Band | Number of Transceivers | | | | |
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| 1.7 GHz | 276 | 276 | 276 | 276 | 80 |
| 3.3 GHz | 308 | 270 | 232 | 201 | 218 |
| 3.5 GHz | 2001 | 1,958 | 1,915 | 1,692 | 1,784 |
| Total | 2585 | 2,504 | 2,423 | 2,169 | 2,082 |

Source: Communications Authority of Kenya

Figure 2.3: The status of FWA Transceivers in the country



2.1.4 Satellite Systems

The Authority authorized frequencies for 8 Private Very Small Aperture Terminals (VSAT) in the FY 2015/16 compared to 12 in the FY 2014/15. The VSAT earth stations were assigned frequencies in the 6 GHz and 14 GHz bands.

2.1.5 Private Land Mobile Services

The Authority licenced 83 fixed stations and 654 Mobiles/Portable stations in both VHF and HF frequency bands as shown in Table 2.4.

| Table 2.4 Additional Private Land Mobile Stations | | | | | | |
|---|-------------------|---------|---------|---------|---------|---------|
| Frequency Band | Station Type | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| VHF | Fixed | 74 | 94 | 112 | 113 | 79 |
| | Mobile / Portable | 697 | 822 | 565 | 1,166 | 649 |
| | Total | 771 | 916 | 677 | 1,323 | 728 |
| HF | Fixed | 11 | 3 | 0 | 10 | 4 |
| | Mobile | 31 | 7 | 0 | 34 | 5 |
| | Total | 42 | 10 | 0 | 44 | 9 |

Source: Communications Authority of Kenya

In the year under review, there was slow uptake of VHF and HF communication services due to a growing preference for Trunk Networks by the county governments and major corporations.

There was a major decrease in the cumulative number of authorized private communication networks, which stood at 2,288 fixed stations and 14,782 mobile stations compared to 4426 fixed stations and 23,647 mobile stations in 2014/15 as shown in Table 2.5. This is largely attributed to the cancellation of dormant networks.

| Table 2.5 Number of Private Radio-communication Stations | | | | | | | | |
|--|-----------------------|----------|----------|----------|---------------------------------|----------|----------|----------|
| Frequency Band | No. of Fixed Stations | | | | No. of Mobile/Portable Stations | | | |
| | 2012 /13 | 2013 /14 | 2014 /15 | 2015 /16 | 2012 /13 | 2013 /14 | 2014 /15 | 2015 /16 |
| 3-30MHz | 1053 | 1004 | 945 | 302 | 2,085 | 1968 | 2053 | 989 |
| 30-136 MHz | 1032 | 250 | 261 | 197 | 3,146 | 1083 | 1095 | 656 |
| 136-174MHz | 3,299 | 3059 | 3126 | 1774 | 19,426 | 19741 | 20241 | 12995 |
| 300-470MHz | 49 | 52 | 49 | 15 | 213 | 212 | 213 | 142 |
| Total | 4,422 | 4365 | 4,426 | 2288 | 22,835 | 23,005 | 23,647 | 14782 |

Source: Communications Authority of Kenya

Aeronautical Radio

This refers to radio installations aboard aircraft and fixed stations for aviation communication. Aircraft radio stations are radio installations aboard aircraft that provide ground-to-ground and air-to-ground

communication services to aviation operators. The authority manages access to the HF and VHF aeronautical bands by licensing Aircraft stations and other aeronautical radio installations. In line with the ICAO rules, aircrafts must have a radio licence before they can be allowed to fly. In the past year the Authority issued 648 Aircraft Station Licences.

Amateur Radio

Amateur radio, also called ham radio, is the use of radio frequency for non-commercial exchange of messages for persons (Hams) without any pecuniary interest. This is a popular hobby and service that brings people, electronics and communication together. People use ham radio to talk across town, around the world, perform wireless experimentation, private recreation, radio sport and emergency communication.

The Authority licences radio amateurs in the following categories: Novice, Temporary and Permanent. A novice licence is given to beginners and students who take up this service. Temporary licences are issued to visiting Hams who have amateur radio operator certificates from countries that reciprocate with Kenya. The full/permanent licence is issued to those who have attained qualifications as administered by the Amateur Radio Society of Kenya (ARSK). The Authority collaborates with the radio society in issuance of certificates, which is the best practice adopted across the globe. In the FY 2015/2016 the Authority issued 28 amateur radio operator certificates

2.1.6 Radio Alarm Services

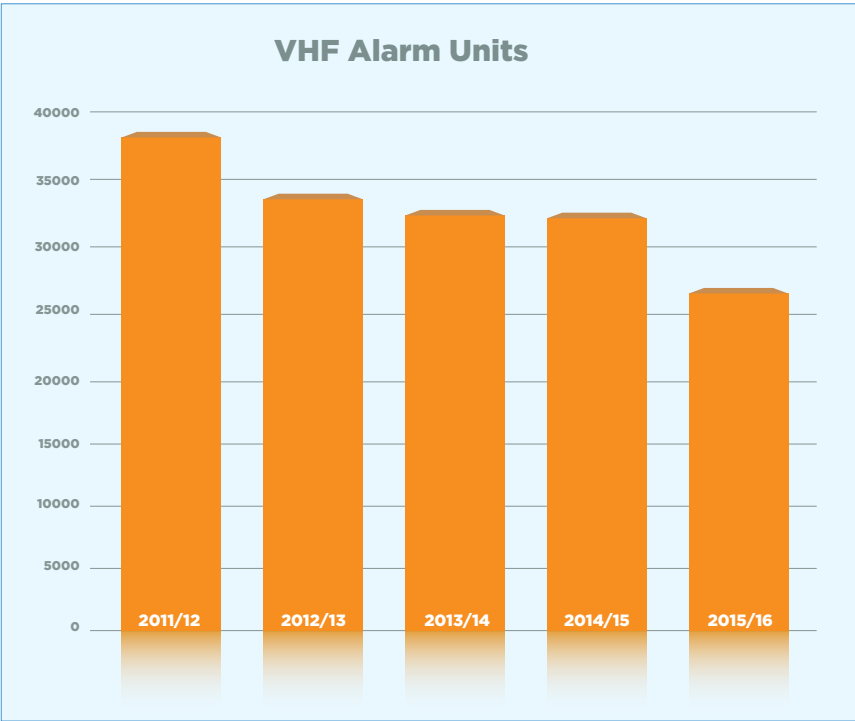
The total number of radio alarm transmitter units in the country was 27,157 for a total number of 226 networks compared to 32072 for 297 networks in the year 2014/15. The decrease can be attributed to the growing popularity of GSM based alarm transmitters and cancellation of frequency authorizations.

A summary of the number of radio alarms networks and transmitter units is provided in Table 2.6 and graphically illustrated in Figure 2.4.

| Table 2.6 Number of Alarm Networks and Units | | |
|--|-----------------------|--------------------|
| Financial Year | No. of Alarm Networks | No. of Alarm Units |
| 2011/12 | 245 | 38,360 |
| 2012/13 | 282 | 33,730 |
| 2013/14 | 299 | 32,023 |
| 2014/2015 | 297 | 32,072 |
| 2015/2016 | 226 | 27,157 |

Source: Communications Authority of Kenya

Figure 2.4: Status of alarm transmitter units in the country



2.1.7 Digital TV Broadcasting Frequencies

The Authority allocates frequencies to facilitate the provision of TV broadcasting services in the Country. Following the successful switch-over to the digital platform in June 2015, the Authority embarked on the assignment of digital TV frequencies to the licenced signal distributors.

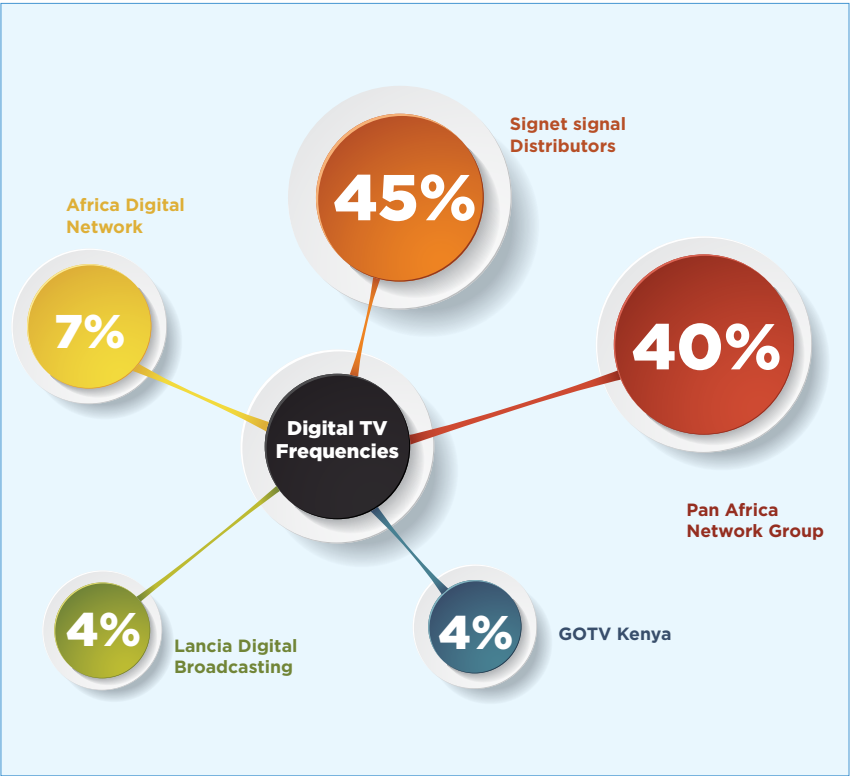
The Authority has assigned digital TV frequency as shown in Table 2.7 and Figure 2.5.

| Table 2.7 Digital TV frequency assignments | |
|--|-------------|
| SIGNAL DISTRIBUTORS | FREQUENCIES |
| Signet Signal Distributors | 139 |
| Pan Africa Network Group | 124 |
| Africa Digital Network | 21 |
| Lancia Digital Broadcasting | 14 |
| GOTV Kenya | 13 |
| TOTAL | 311 |

Source: Communications Authority of Kenya

Figure 2.5: Digital TV Frequencies

Chart 5: Showing the distribution of digital TV frequencies by operator in the country.



2.1.8 Maritime Mobile Service Identity

The MMSI is a nine digit number sent digitally over a frequency channel as an alert that uniquely identifies ship stations, ship earth stations and other coast stations at times of distress. This number is issued to flagged ships by the states that flag them as provided by the International Convention of Safety of Life at Sea (SOLAS) treaty. These are issued as per the Recommendation ITU-R M.585-7 Assignment and Use of Identities in the Maritime Mobile Service. At the close of the year the cumulative number stood at 25.

2.1.9 Outcome of the World Radio Communication Conference 2015

The International Telecommunication Union organizes World Radio Communication Conferences (WRC) every three to four years to review the Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and the geostationary satellite and non-geostationary satellite orbits.

The Authority as the representative of the government of Kenya at the ITU attended the WRC-15 held in Geneva, Switzerland in October-November 2015. The outcomes on the use of the radio-frequency spectrum, geostationary satellite and non-geostationary satellite orbits that have implications on Kenya are highlighted below:

a) Additional Spectrum for Mobile Broadband Communications

The additional globally harmonized spectrum allocation for mobile broadband services in the L-band (1427-1518 MHz), C-band (3400 -3600 MHz) and in the band 3300-3400 MHz will provide enhanced capacity to meet the growing demand for spectrum for 4G and the next generation 5G networks. The 700 MHz (694-790 MHz) band will provide enhanced capacity for mobile broadband in Kenya.

b) Exclusive use of UHF band for terrestrial TV services

The UHF spectrum (470MHz-694MHz) will remain exclusively allocated to terrestrial TV services well into the next decade. This will enable the country to continue with the expansion of digital terrestrial TV services without the risk of an impending change in use of the spectrum.

c) New allocation to Amateur Radio Service

The frequency band 5351.5 - 5366.5 kHz will be available for allocation to amateur radio service in Kenya. This will enable amateur operators in the country to maintain stable communications over various distances and complement the existing 3 and 7 MHz bands, especially for use when providing communications in disaster situations and for relief operations.

d) Harmonized spectrum for emergency communications and disaster relief

The approved regulatory framework will facilitate globally harmonized mobile broadband communications for robust and reliable mission critical emergency services (e.g police, fire, ambulances and disaster response teams) in public protection and disaster relief (PPDR) within the frequency band 694-894 MHz.

e) Increase efficiency in the use of the spectrum/orbit resource

The new regulations will increase efficiency in the use of the satellite orbit and the associated frequencies. It will also facilitate developing countries like Kenya to launch satellites and bring into use satellite network frequency assignments with ease.

f) New spectrum : Earth observation satellites for environmental monitoring

The new global allocations in the 7-8 GHz frequency range will lead to the development of modern broadband sensing technologies and space-borne radars. Scientific and geo-information applications will provide high quality measurements in all weather conditions. This will enhance disaster relief and humanitarian aid, optimal land utilization and large-area coastal surveillance addressing matters such as coastal pollution, fisheries management, search and rescue, beach erosion, and maritime navigation. Some of the organizations that will benefit from these applications include NEMA, KWS, KMA, KPA, Security agencies among others.



g) Unmanned aircraft (drones) and wireless avionics systems

The approved regulatory conditions for drones will allow implementation of the systems globally to support flight through non-segregated airspace since the numbers of Unmanned Aircraft (UA) are growing worldwide.

A new spectrum allocation for Wireless Avionics Intra-Communications (WAIC) will enable replacement of the heavy and expensive wiring used in aircraft with wireless systems. This will save on fuel and allow efficient operations by airlines such as Kenya Airways.

h) Global flight tracking for civil aviation

A new spectrum allocation in the band 1087.7-1092.3 MHz for global flight tracking in civil aviation will improve flight safety globally for the aviation industry. It will allow operators to determine the position of aircrafts equipped with Automatic Dependent Surveillance Broadcast (ADS-B) anywhere in the world, including oceanic, polar and other remote areas.

i) Enhanced maritime communications systems for safety systems for ships and ports

The approved regulatory provisions and frequency allocation will enable new Automatic Identification System (AIS) applications and other possible new applications to improve maritime radio communication. The new applications for data exchange using AIS technology are intended to improve safety of navigation. The new allocations were made in the Bands 161.9375-161.9625 MHz and 161.9875-162.0125 MHz to the Maritime mobile satellite service. The allocation will enable Kenya Maritime Authority, Kenya Ports Authority and the global maritime community at large to enhance maritime safety systems for ships and ports.

j) Road Safety through reduction of traffic accidents

The new allocation of spectrum for short-range high-resolution automotive radar in the 79 GHz frequency band will provide spectrum for automotive radar to prevent collisions and improve vehicular safety.

2.2 Management of Numbering Resources

The Authority administers communications numbering resources used by service providers to facilitate provision of various services. During the same period in an effort to enhance management of numbering resources, the Authority initiated the process of procuring a Numbering Resource Management System (NMS). This system will automate and ensure data integrity in the process of allocation, reservation, assignment and reclamation of numbering resources. The system will provide an online platform for service providers to submit and track their applications for numbering resources. The installation and commissioning of the NMS is expected to be completed within FY 2016/17.

2.2.1 Assignment of Numbering Resources

As part of its mandate to facilitate interconnection between operators and enable provision of services to end-users, the Authority assigned numbering resources to telecommunication service providers.

A total of 11 Mobile National Destination Codes (NDCs) were assigned to Mobile Service Providers to facilitate mobile telephony services and trial 4G services. For fixed Central Office Codes (CoCs) or fixed telephony numbers, there was increased demand by newly licenced Application Service providers (ASPs) and those providing Triple-Play packaged services. Content Service Providers (CSPs) were assigned 10 Premium Rate Numbers (0900) and 1000 bulk short codes to facilitate the provision of value added services. , 10 Short Codes were assigned to various government ministries, departments and agencies to facilitate e-government services.

The newly licenced ASPs also applied for 0800 Toll-free Numbers to give to end-users and for their own use. The demand for voice-based 0900 premium rate numbers was mainly from the newly licenced CSPs. The demand for bulk SMS codes was fuelled by MVNOs who required them to allocate to their customers.

The resources assigned during the last five years are summarized in Table 2.8.

| Table 2.8 Numbering Resources Assigned | | | | | | |
|--|---|---------|---------|---------|---------|---------|
| No | Number Category | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| | Mobile NDC | 3 | 4 | 4 | 4 | 11 |
| | Fixed CoC | 4 | 111 | 247 | 35 | 23 |
| | 0800 Bulk Toll Free Numbers | 1,024 | 2 | 1,100 | 0 | 10 |
| | 0900 Bulk Premium Rate Numbers | 34 | 7,001 | 0 | 200 | 10 |
| | Bulk SMS Short Codes | 0 | 17,500 | 10,208 | 8,300 | 1,000 |
| | National Signalling Point Codes | 2 | 2 | 1 | 1 | 0 |
| | International Signalling Point Codes | 1 | 0 | 0 | 0 | 0 |
| | Short Codes (Assigned directly to mainly government and entities) | 5 | 11 | 4 | 8 | 10 |
| | Issuer Identification Number | 0 | 0 | 3 | 0 | 0 |
| | Mobile Network Code | 0 | 0 | 3 | 0 | 0 |
| | Mobile Number Portability routing code | 0 | 0 | 3 | 0 | 0 |

Source: Communications Authority of Kenya

*One (1) Mobile National Destination Code (NDC) is equivalent to 1,000,000 mobile telephony subscriber numbers.

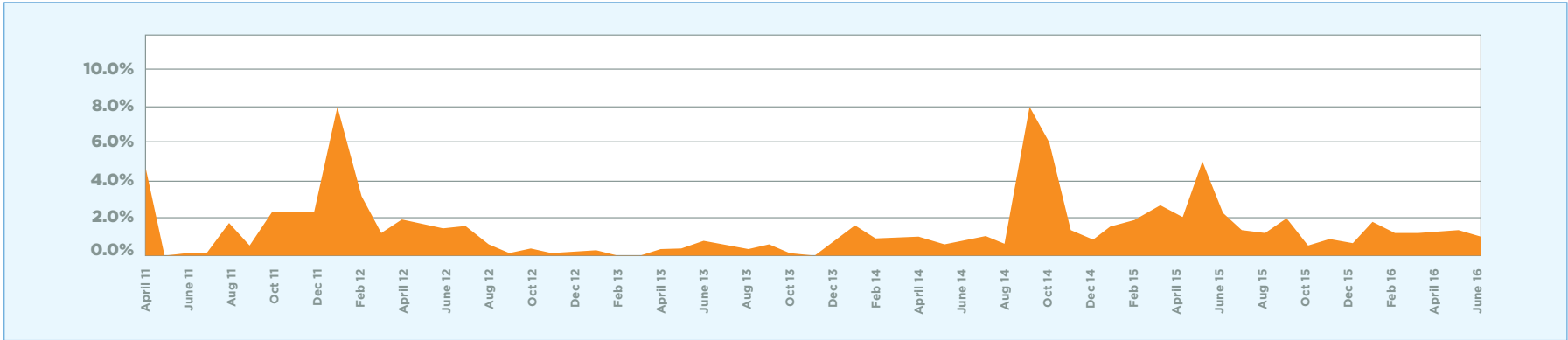
*One (1) Fixed telephony Central Office Code (CoC) is equivalent to 1,000 fixed telephony subscriber numbers.

2.2.2 Mobile Number Portability

The Authority revised the Procedures and Guidelines for the provision of Mobile Number Portability services, in consultation with service providers and the public. The purpose of this revision was to enhance consumer experience in the porting process and align provision of these services to the current global trends and practices. The revised MNP Procedures and Guidelines are available on the Authority's website.

Figure 2.6 shows the monthly percentage of ports realised since launch in April 2011

Figure2.6: MNP porting monthly incidence since April 2011



2.2.3 Management of the dot KE Domain Name Registry



The dot KE country code top-level domain (ccTLD) is Kenya's unique and authentic identity on the Internet. The Authority is mandated under KICA to support the adoption and growth of the dot KE ccTLD. This not only ensures growth of the dot KE namespace, but also enhances the level of data protection given that the dot KE namespace is a critical Internet resource under the Kenyan jurisdiction.

The Authority has licenced The Kenya Network Information Centre (KENIC) as the registry for the dot KE domain namespace. As at 30th June 2016, KENIC had registered a total of 58,206 domain names as shown in the Table 2.9

| Table 2.9 Dot Ke Domains Registered in Kenya | | | | | |
|--|-------------------------------------|----------------|---------|---------|---------|
| Subdomain | Use | No. of Domains | | | |
| | | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| CO.KE | Companies | 25,840 | 29,374 | 43,486 | 53,990 |
| GO.KE | Government Entities | 372 | 301 | 325 | 368 |
| OR.KE | Non Profit Making Organizations | 1,174 | 1193 | 1,491 | 1,759 |
| AC.KE | Institutions of Higher Education | 678 | 773 | 885 | 791 |
| SC.KE | Lower and Middle Level Institutions | 112 | 119 | 175 | 605 |
| NE.KE | Personal Websites and E-mail | 40 | 65 | 93 | 182 |
| ME.KE | Personal Websites and E-mail | 406 | 546 | 566 | 337 |
| MOBI.KE | Mobile Content | 33 | 43 | 51 | 46 |
| INFO.KE | Information | 86 | 94 | 112 | 128 |
| Total | | 28,741 | 32,508 | 47,184 | 58,206 |

Source: Kenya Network Information Centre (KENIC) - www.kenic.or.ke

CHAPTER 3

PROMOTING COMPETITION AND INNOVATION

3 PROMOTING COMPETITION AND INNOVATION

The Authority manages competition in the ICT sector with a view to among others, maximize social welfare benefits to both investors and consumers. Execution of the same has led to the introduction of a myriad of services and lowering the cost of telecommunications services within the year. More specifically, the Authority licenced new entrants into the market, carried out research on the latest developments in ICT, regulated tariffs in non-competitive market segments, and enforced KICA (Tariff) Regulations, 2010 and KICA (Fair Competition and Equality of Treatment) Regulations, 2010.

3.1 Licensing of Communication Services

In exercising its mandate, the Authority licences telecommunications, radiocommunications postal and courier services, broadcasting, and electronic transactions service providers.

3.1.1 Telecoms Licensing

The total number of licences under the Unified Licensing Framework (ULF) increased to 2454 from 2155 the previous year representing a growth of 13.9 per cent. Table 3.1 provides a summary of the licensing categories and the cumulative number of licences for the past 5 years.

| Table 3.1 Cumulative Number of ULF Licences | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|
| Licence Category | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Telecommunications Contractors (TEC) | 314 | 360 | 448 | 542 | 665 |
| Technical Personnel (TP) | 485 | 576 | 668 | 714 | 653 |
| Submarine Cable Landing Rights (SCR) | 3 | 3 | 3 | 3 | 3 |
| International Gateway Systems & Services (IGS) | 13 | 13 | 13 | 14 | 13 |
| Application Service Providers (ASP) | 105 | 122 | 133 | 163 | 206 |
| Content Service Providers (CSP) | 156 | 188 | 221 | 261 | 320 |
| Network Facility Providers Tier 1 (NFP T1) | 4 | 4 | 4 | 3 | 3 |
| Network Facility Providers Tier 2 (NFP T2) | 17 | 18 | 19 | 22 | 23 |
| Network Facility Providers Tier 3 (NFP T3) | 10 | 13 | 15 | 19 | 24 |
| Business Process Outsourcing (BPO) | 39 | 39 | 39 | 44 | 50 |
| Telecommunications Vendors (TEV) | 162 | 219 | 300 | 393 | 432 |
| Public Communication Access Centers | 5 | 6 | 9 | 14 | 14 |
| Dot KE Subdomain Registrars | 0 | 0 | 0 | 0 | 48 |
| Total | 1,311 | 1,558 | 1,866 | 2,155 | 2,454 |

Source: Communications Authority of Kenya

From table 3.1, the highest growth was registered under Application Service Providers, Content Service Providers and Telecommunications Contractor categories. The Authority commenced licensing of domain name registrars under a new licence category - DOT KE sub-domain Name Registrar Service Provider.

The number of licencees under the old licensing framework further decreased from 1001 to 554 owing to the migration to the unified licensing framework. Table 3.2 provides a summary of the categories in the old framework.

| Table 3.2 Number of Licences under the Old Licensing Framework | | | | | |
|--|------------|------------|------------|-------------|------------|
| Licence Category | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Vendor and Contractor | 656 | 645 | 643 | 637 | 231 |
| Technical Personnel | 217 | 214 | 209 | 251 | 230 |
| Internet Service Providers | 45 | 45 | 44 | 58 | 36 |
| Value Added Service Providers | 31 | 30 | 30 | 30 | 8 |
| Premium Rate Service Providers | | | | | 24 |
| Public Data Network Operators | 8 | 10 | 10 | 12 | 0 |
| Local Loop Operators | 10 | 10 | 10 | 10 | 7 |
| Landing Cable Rights LCR | | | | | 2 |
| Internet Exchange Point (IXP) | | | | | 2 |
| Commercial VSAT (Hub Operators) | 1 | 1 | 1 | 1 | 1 |
| Landing Rights Authorization for Global Mobile Personal Communications via Satellite (GMPCS) | 3 | 3 | 3 | 3 | 3 |
| IBGO | - | - | - | - | 2 |
| DCNO | 2 | 2 | 2 | 2 | 8 |
| Total | 970 | 957 | 949 | 1001 | 554 |

Source: Communications Authority of Kenya

3.1.2 Postal Licensing

The Authority implemented a reviewed postal/courier market structure, which saw a reduction in the number of licence categories from the previous seven to three. The new licence categories are the Public Postal Operator licence, International Postal/Courier Operator licence and National Postal/Courier Operator licence. As a result of the introduction of the new market structure, 186 licences courier firms compliant with their licence conditions were migrated to the new market structure. The number of new courier licences issued under this new structure was

23 of which 20 were National Postal/Courier licences and three were International Postal/Courier licences.

The total number of licencees reduced from 241 reported in FY 2014/15 to 204. The decline is as a result of revocation of licences issued to 60 non-compliant firms.

3.1.3 Licensing of Broadcasting Services

The Authority issues broadcasting service licences in the following categories: Public broadcasting, Community Free-to-Air, Commercial Free-to-Air, Cable Subscription, Satellite Subscription, Terrestrial Subscription, Subscription Management, Internet Protocol Broadcasting and Landing Rights Authorization for broadcasting services.

In FY 2014/15, the Authority issued a total of 46 licences out of which one was a Community Free-to-Air TV broadcasting licence, three were Cable Subscription licences and 42 were Commercial free-to-air TV broadcasting licences.

3.1.4 Electronic Transactions Services

The Kenya Information and Communications Act (KICA), 1998, mandates the Authority to issue licences to Electronic Certification Service Providers (E-CSPs). During the year under review, the Authority did not receive any application under this category.

| Financial Year | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|--|-------------|-------------|-------------|-------------|------------|
| Wireline Subscriber Capacity | 380,135 | 362,627 | 340,005 | 175,407 | 179,408 |
| Wireline Connections | 74,606 | 56,724 | 53,998 | 87,774 | 80,746 |
| Wireless Connections (Include LLO Subscribers) | 188,155 | 159,745 | 147,396 | 0 | 370 |
| Total Connections (Wireline and Wireless) | 262,761 | 216,469 | 201,398 | 87,774 | 81,116 |
| Urban Wireline Connections | 72,368 | 54,758 | 50,481 | 87,774 | 81,116 |
| Rural Wireline Connections | 2,238 | 1,694 | 1,520 | 0 | 0 |
| International Outgoing Traffic (Minutes) | 20,058,628 | 16,457,407 | 16,498,989 | 13,398,004 | 9,269,611 |
| International Incoming Traffic (Minutes) | 17,796,496 | 14,444,467 | 12,427,119 | 10,598,469 | 7,483,318 |
| Traffic to Mobile networks (Minutes) | 104,967,748 | 105,287,432 | 105,212,956 | 107,889,935 | 40,289,405 |

Source: Communications Authority of Kenya

3.2 Information and Communications Technology Services

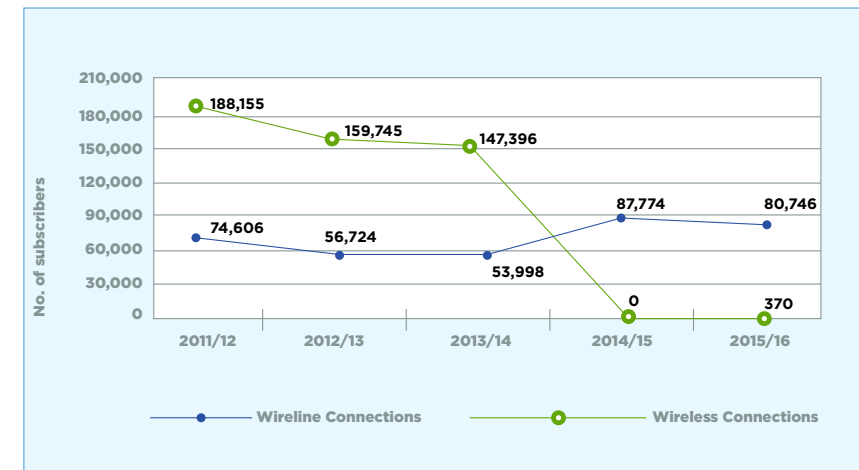
3.2.1 Telecommunication Services

Similar to global trends and especially in emerging and developing economies, mobile telephony in Kenya continued to dominate growth in the telecommunications sub-sector compared to fixed telephony services which continued on a downward trajectory. The Authority licenced infrastructure providers under the NFP licence categories, as well as service providers under the ASP and CSP licence categories, who added to the pool of diverse products and services in the telecommunications market.

3.2.1.1 Fixed Network Voice Services

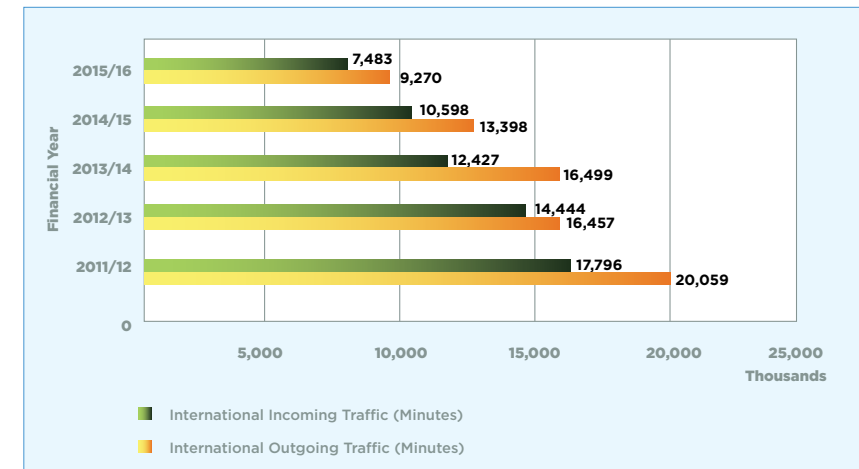
Four operators provided fixed voice services during the year under review namely, Telkom Kenya limited, Wananchi Group Kenya Limited, Mobile Telephony Network Kenya Limited and Safaricom Limited, who had 30,979, 49,581, 186 and 370 subscribers respectively. The total number of fixed connections decreased by 8 per cent to stand at 81,116 subscriptions during the FY 2015/16. This can be attributed to the continued decline of fixed telephony services arising from the competitive pressure being imposed by mobile telephony services as well as other technologies. This is shown in Table 3.3.

During the year under review, connections dropped by 7.58 per cent to stand at 81,116 connections down from 87,774 connections reported in the FY 2014/15. Similar to the FY 2014/15, there were no rural wireline connections recorded during the year under review. This is illustrated in Figure 3.1 below:



Source: Communication Authority of Kenya

International outgoing voice traffic fell to 9,269,611 minutes in the FY 2015/16 from 13,398,004 the previous year, translating to a 30.8 per cent drop. Likewise, the international incoming fixed voice traffic decreased by 29.4 per cent during the period under review to stand at 7,483,318 minutes, from 10,598,469 minutes the previous financial year. This is illustrated in Figure 3.2.



Source: Communications Authority of Kenya

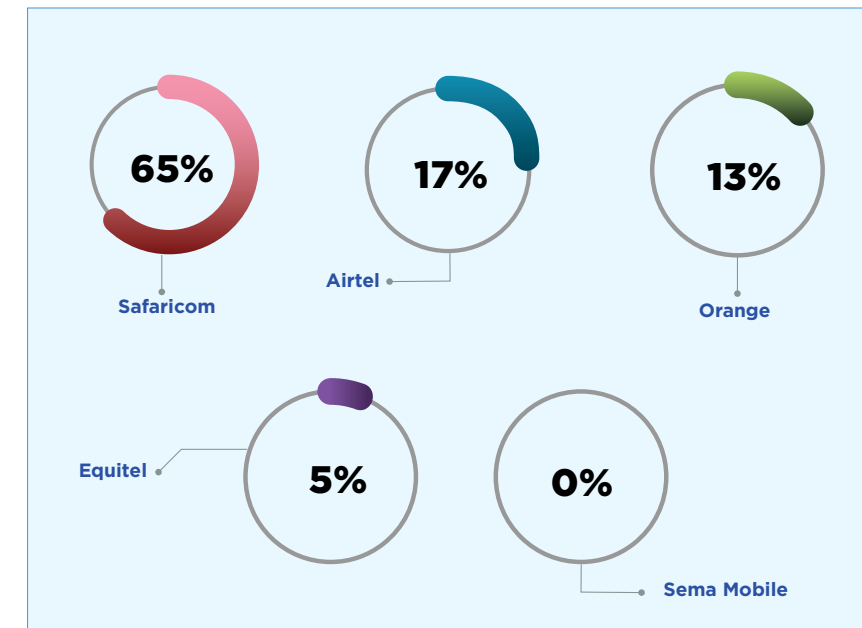
* the figure for 2011/12 is revised

3.2.1.2 Mobile Network Services

In total, the market had five mobile telephony service providers-three MNO'S namely Airtel Kenya Limited (Airtel),Safaricom Kenya Limited

(Safaricom) and Telkom Kenya (Orange), and two MVNOs namely Finserve Kenya Limited and Zioncell Kenya Limited (Sema Mobile).

As at the end of June 2016, Safaricom had 25,941,488 subscribers, Airtel had 6,588,825 subscribers and Orange had 5,238,162 subscribers. Equitel and Sema Mobile had a total of 2,015,352 subscribers and 275 subscribers respectively. Their respective market shares are illustrated in Fig 3.3.



Source: Communications Authority of Kenya

Mobile subscriptions rose by 10 per cent during the year under review to stand at 39.78 million in comparison to 36.11 million reported in the previous period. Mobile subscriber capacity of the service providers grew to 71.6 million in FY 2015/16 up from 62.8 million recorded in the previous year.

Mobile penetration increased in the FY 2015/16 to stand at 90 per cent, up from 84 per cent recorded at the end of FY 2014/15, edging closer to the global penetration rate, which stood at 98.6 per cent at the end of 2015. Kenya's mobile penetration rate is still higher than the average continental penetration rate of Africa, which stood at 76.2 per cent.

During the year the proportion of post-paid subscription increased from 2.67 per cent recorded in the FY 2014/15 to 3.1 per cent. However, the share of post-paid subscription services remained low as compared to the pre-paid subscriptions that marginally declined from 97.33 per cent recorded in FY 2014/15 to 96.9 per cent.

Short Messaging Services (SMS) traffic continued on a moderate upward trajectory for the third year running in spite of the competitive pressure SMS services faced from over-the-top (OTT) services such as WhatsApp. SMS traffic stood at 33.3 billion in the FY 2015/16 up from 27.4 billion recorded in the previous period, representing a growth of 21 per cent. This is illustrated in Table 3.4.

| Table 3.4 Mobile Network Growth Indicators | | | | | |
|--|---------------|----------------|----------------|----------------|----------------|
| Type | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Subscriber Capacity | 49,977,000 | 55,077,000 | 65,077,000 | 62,800,000 | 71,600,000 |
| No. of Subscribers | 29,703,439 | 30,549,422 | 32,246,393 | 36,113,121 | 39,784,102 |
| SMS | 4,295,378,823 | 13,233,082,214 | 24,582,230,257 | 27,443,621,730 | 33,321,048,435 |

Source: Communications Authority of Kenya

The growth in SMS traffic can be attributed to the significant reduction of SMS tariffs by the service providers through the offering of SMS bundled services. This growth can also be attributed to the increased uptake of premium rate services.

Incoming international mobile traffic increased to 742.5 million minutes from 629.6 million minutes while the outgoing international traffic increased to 485.4 million minutes from 471.5 million minutes recorded in the previous period. This growth was largely as a result of increased traffic to the East African Community from Kenya owing to the continued implementation of the “One Network Area” framework adopted by majority of the Partner States that saw a reduction of calling rates across the region.

3.2.1.3 Mobile Money Transfer Service

Kenya’s mobile money transfer market continued to be a global front-runner through innovations that enhance cash transfers and remittances via the mobile platform, resulting in enhanced financial inclusion. Some of the financial services offered via the mobile platform include micro-savings and micro-credit, person-to-person cash transfers, utilities payments, payments for goods and services, person-to-bank and bank-to-person services.

In the FY 2015/16, mobile money services were offered by six service providers namely; Safaricom Limited (M-Pesa), Telkom Kenya Limited (Orange Money – Iko Pesa), Airtel Networks Kenya Limited (Airtel Money), Mobikash, Tangaza and Finserve Limited (Equitel). Their market

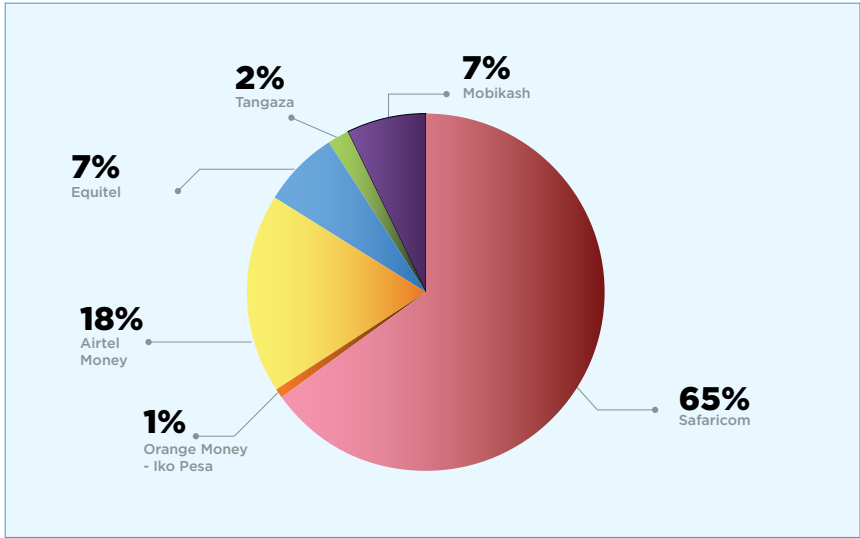
The mobile money transfer indicators are illustrated in Table 3.5.

| Table 3.5 Mobile Money Transfer Indicators | | | | | |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Operator | 30 th June 2012 | 30 th June 2013 | 30 th June 2014 | 30 th June 2015 | 30 th June 2016 |
| Safaricom Limited (M-Pesa) | 15,083,674 | 17,561,999 | 19,776,056 | 21,338,328 | 17,120,278* |
| Telkom Kenya Limited (Orange Money – Iko Pesa) | 140,166 | 166,114 | 185,463 | 192,531 | 193,831 |
| Airtel Networks Kenya Limited (Airtel Money) | 3,751,713 | 4,580,467 | 3,238,754 | 3,119,812 | 4853869 |
| Mobikash | - | - | 1,263,655 | 1,714,170 | 1,772,466 |
| Tangaza | - | - | 503,556 | 503,556 | 503,556 |
| Equitel (Finserve Ltd) | - | - | - | 873,643 | 1,860,647 |
| Total Number of Subscribers | 19,505,702 | 24,840,404 | 27,114,623 | 27,742,040 | 26,304,647* |
| Total Number of Agents | 49,079 | 88,466 | 110,096 | 129,357 | 158,777 |

Source: Communications Authority of Kenya

* The reduction was as a result of change in the definition of what constitutes an active mobile subscriber by one of the service providers.

shares are shown in Figure 3.4.



Source: Communications Authority of Kenya

3.2.1.4 Internet Services

Internet services in Kenya are delivered via various media, which include fixed wireless access, cable networks, fibre optic cables, satellite networks and mobile networks. The expansion in public and private-Internet infrastructure resulted to increased availability of Internet service across the country. Moreover, availability of low-cost data enabled devices, and availability of attractive data plans and bundled services, and increased adoption of OTT services led to increased access and use of the Internet.

Subscription and penetration data

The total number of internet subscriptions stood at 26,880,471 up from 19,924,285 with mobile subscription accounting for 99 per cent of the subscriptions. Mobile data –Internet subscription grew by 35 per cent to record 26,758,789 up from 19,809,709 subscribers recorded during the FY 2014/15.

Internet users were estimated at 37,716,579 in FY 2015/16 up from 29,672,419 recorded in the previous year, representing 27 per cent growth and 85 per cent penetration. Table 3.6 shows internet subscription and users.

| Table 3.6 Internet subscriptions and users | | | | | |
|---|------------|------------|------------|------------|------------|
| Subscriptions/Users | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Mobile data/Internet subscriptions | 7,655,576 | 12,340,005 | 13,930,694 | 19,809,709 | 26,758,789 |
| Wireless data/Internet subscriptions | 21,709 | 21,282 | 16,205 | 17,721 | 13,449 |
| Satellite data/Internet subscriptions | 519 | 1,278 | 646 | 635 | 280 |
| Fixed Digital Subscriber Line (DSL) data/Internet subscriptions | 11,682 | 11,512 | 12,129 | 2,597 | 3063 |
| Fixed fibre optic data/Internet subscriptions | 49,371 | 58,197 | 69,373 | 93,598 | 27,571** |
| Fixed cable modem (Dial Up) data/Internet subscriptions | 25 | 25 | 25 | 25 | 77,319** |
| Total Internet Subscriptions | 7,738,882 | 12,432,308 | 14,029,072 | 19,924,285 | 26,880,471 |
| Estimated Internet Users* | 14,032,366 | 19,654,925 | 22,310,044 | 29,672,419 | 37,716,579 |

*Total no. Internet users = (IMD+10TW+100FFOS) where MD is the number of mobile data/internet subscriptions; TW is the terrestrial wireless subscriptions; and FFOS by 100 is fixed DSL, Fibre optic and satellite subscriptions. There is no scientific method of estimating internet users; for the purpose of this report the methodology is adopted from the recommendation from ITU.

**The change

Source: Communications Authority of Kenya

3.2.1.5 Broadband Services

Broadband services play a pivotal role in facilitating socio-economic development in Kenya. Broadband services, whether wired or wireless, provide users with the opportunity to access internet services at fast speeds, leading to increased demand for internet services thus encouraging the uptake of broadband services in Kenya.

The total broadband subscriptions stood at 10.9 million subscribers for FY 2015/16 up from 5.3 million recorded in the previous year. The 104 per cent growth is attributed to mobile broadband subscriptions, which grew by a similar margin. Table 3.7 shows the broadband subscriptions by category.

| Table 3.7 Number of Broadband Subscriptions | | | | | |
|---|---------|-----------|-----------|-----------|------------|
| Financial Year | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Fixed Broadband (DSL, Satellite and Fibre) | 35,265 | 64,850 | 73,404 | 94,769 | 107,799 |
| Wireless (e.g WIMAX) | 17,282 | 18,634 | 16,958 | 17,103 | 13,366 |
| Mobile | 674,255 | 1,315,339 | 2,999,794 | 5,215,987 | 10,746,074 |
| Total | 726,802 | 1,398,823 | 3,090,156 | 5,327,859 | 10,867,239 |

Source: Communications Authority of Kenya

In the FY 2015/2016, the total undersea bandwidth capacity increased by 3.71 per cent to stand at 1,730,270 Mbps largely owing to increased fibre optic capacity for SEACOM, which increased from 770,000 to 950,000 Mbps. On the other hand, the fibre optic capacity for TEAMS, EASSY and LION2 declined slightly, as shown in Table 3.8.

| Table 3.8 International Available Bandwidth | | | | | |
|---|------------|-----------|------------|-----------|--------------|
| Financial Year | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| SEACOM Capacity (Mbps) | 308,224 | 578,400 | 565,440 | 770,000 | 950,000 |
| TEAMS Capacity (Mbps) | 101,990 | 101,990 | 119,970 | 820,000 | 702,000 |
| EASSY Capacity (Mbps) | 122,880 | 122,880* | 120,880 | 39,063 | 39,060 |
| LION2 Capacity (Mbps) | 40,960 | 40,960 | 40,000 | 39,220 | 39,210 |
| Total undersea bandwidth capacity (Mbps) | 574,054 | 844,230 | 846,290 | 1,668,283 | 1,730,270 |
| Satellite Bandwidth Capacity (Mbps) | 649.8 | 639.52 | 214.4* | 278 | 475.43 |
| Total available bandwidth capacity (Mbps) | 574,703.80 | 44,869.52 | 846,504.40 | 1,668,561 | 1,730,745.43 |

Source: Communications Authority of Kenya

The total international leased capacity increased from 788,484.78 Mbps to 877,775.43 Mbps representing a growth of 11.32 per cent. As illustrated in Table 3.9, international undersea cable bandwidth accounted for 877,300 Mbps while the international satellite bandwidth, accounted for 475.43 Mbps. The overall growth in international bandwidth can be attributed to increased demand resulting from the increased roll-out of fibre optic technology in the country.

| Table 3.9 International Leased Bandwidth | | | | | |
|--|------------|------------|------------|------------|------------|
| Year | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| International Undersea Bandwidth (Mbps) | 264,426.00 | 356.655 | 440,820.00 | 788,300.00 | 877,300.00 |
| International Satellite Bandwidth (Mbps) | 157.78 | 219.95 | 196.4 | 184.78 | 475.43 |
| Total International Bandwidth (Mbps) | 264,583.78 | 356,874.95 | 441,006.43 | 788,484.78 | 877,775.43 |

Source: Communications Authority of Kenya

3.2.2 Postal and Courier Services

During the year under review, the number of postal outlets remained at 623 as opposed to the number of installed private letter boxes which increased to 450,000 in FY 2015/16 up from 432,000 the previous year. The number of rented letter boxes also grew from 375,840 in FY 2014/15 to 382,500 in FY 2015/16 reflecting increased demand for letter boxes. However, there was a steep reduction in over the counter services as shown in Table 3.10

| Table 3.10 Postal and Courier Network Indicators | | | | | | |
|--|-----------|---------|---------|---------|---------|---------|
| Network | | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Public Postal Operator | | 1 | 1 | 1 | 1 | 1 |
| Total Post Offices | | 634 | 622 | 622 | 623 | 623 |
| Departmental Offices | | 477 | 476 | 476 | 477 | 446 |
| Sub-Post Offices | | 157 | 146 | 146 | 146 | 146 |
| Private Letter Boxes | Installed | 431,181 | 432,000 | 432,000 | 432,000 | 450,000 |
| | Rented | 369,223 | 375,093 | 367,200 | 375,840 | 382,500 |
| | Un-let | 61,948 | 56,907 | 64,800 | 56,160 | 67,500 |
| Letter Posting Boxes | | 752 | 890 | 890 | 890 | 890 |
| Public Counter Positions | | 1,030 | 1102 | 1,102 | 1,100 | 479 |

| Table 3.10 Postal and Courier Network Indicators | | | | | |
|--|---------|---------|---------|---------|---------|
| Network | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Automated Public Counters | 434 | 548 | 556 | 716 | 472 |
| Non-Automated Public Counters | 596 | 554 | 546 | 384 | 7 |
| Stamp Vending Licencees | 2,847 | 4,274 | 4,274 | 4,274 | 883 |
| Stamp Vending Machines | 280 | 280 | 280 | 280 | 38 |
| Private Operator Outlets | 683 | 707 | 707 | 2,117 | 1,599 |
| Total Outlets (Post Offices + Private Operators Outlets) | 1,317 | 1,329 | 1,329 | 2,740 | 1,637 |

Source: Communications Authority of Kenya

3.2.3 Broadcasting Services

In consultation with the common-carrier BSDs, the Authority set DTT network roll out targets. This resulted in increased digital television signal coverage from 58 per cent to 64 per cent of the population. The number of Free-to-Air TV channels stood at 63 channels as at the end of the FY 2015/16.

There were also two terrestrial subscription television providers, namely StarTimes Kenya Limited (StarTimes) and GoTV Kenya Limited (GoTV) whose subscribers stood at 1,219,769 and 1,734,071 respectively as at the end of the financial year. Lancia Digital Broadcast Limited (Bamba) also provided a Free-to-View terrestrial television service with a total of 32 channels.

3.3 Tariffs and Competition

In pursuit of its mandate, the Authority monitors services offered by licencees as well as the levels of competition in the various markets under its purview.

3.3.1 Telecommunications

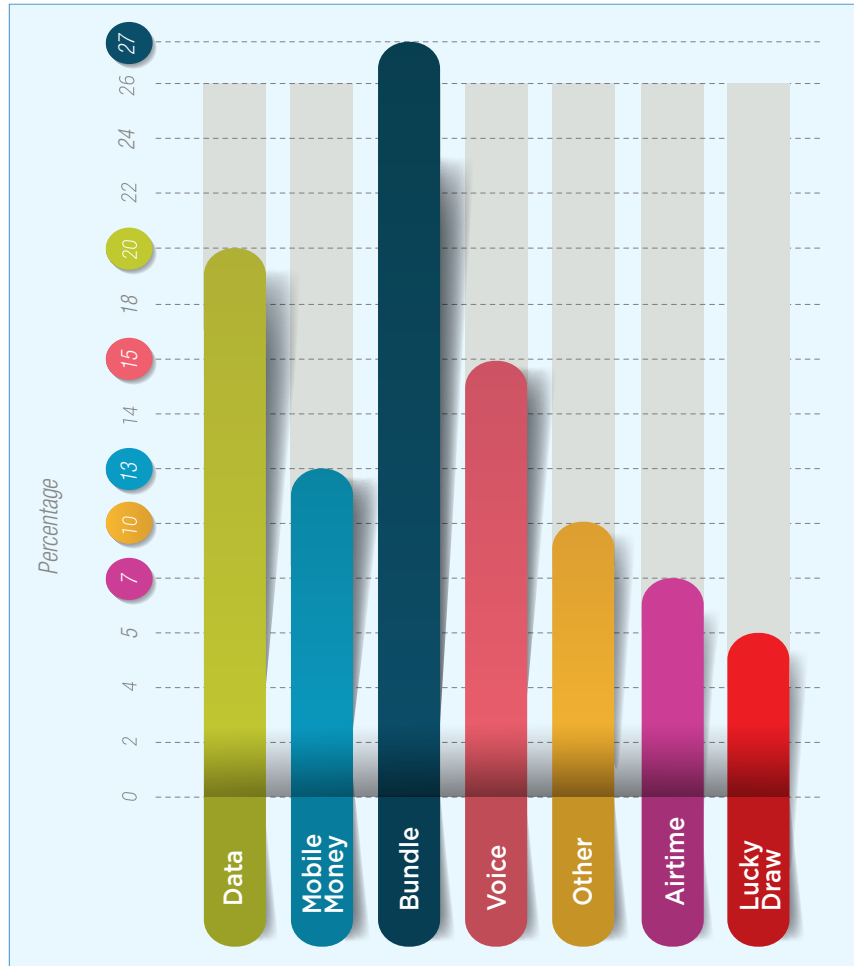
The Authority enforced implementation of the capped interconnection rates illustrated in table 3.11 for mobile termination, fixed termination and fixed transit. In addition, the Authority continued to enforce implementation of the SMS termination rate which is capped at KES 0.05.

| Table 3.11 Mobile and Fixed Termination rates for 2015/2016 | |
|---|---------------|
| Call Termination Prices (KES) | |
| Mobile Termination | 0.99 |
| Fixed Termination and Transit for Existing Regulated Services | |
| Local Termination | 0.99 |
| Single-tandem Termination from Tandem Exchange | |
| Double-tandem Termination from Tandem Exchange | 0.99 |
| Single-tandem Termination from Local Exchange | |
| Double-tandem Termination from Local Exchange | |
| Transit Local Exchange to Tandem (Single Tandem) | |
| Transit Local Exchange to Tandem (Double Tandem) | |
| Tandem to Tandem Transit | No tariff cap |
| Local to Local Transit (Single Tandem) | |
| Local to Local Transit (Double Tandem) | |

Source: Communications Authority of Kenya

In the FY 2015/16, the three MNOs carried out 40 promotions and special offers as compared to 49 in the previous year. The decrease could be attributed to the introduction of competitive bundled tariffs into the market. As illustrated in figure 3.5, most promotions targeted bundled services (27 per cent) and data services (20 per cent), illustrating operators’ continued efforts to differentiate themselves by offering unique products in the market.

Figure 3.5: MNOs Promotions and Special Offers July 2015 to June 2016



3.3.1.1 Fixed and Mobile Network Services

The average on-net and off-net rates for both mobile and fixed markets remained competitive but fairly stagnant. Over the past two financial years, there has been a marginal change in the Pay-As-You-Go (PAYG) tariffs. These tariffs are fairly converged for mobile and fixed services as shown in Figure 3.6. Nevertheless, there has been a significant increase in bundled services and tariff plans that enable consumers to call, text or use data services at a rate that is significantly lower than the PAYG rates (out of bundle rates). These services were charged on a time or rate basis providing customers with flexibility to choose what best suits their needs. Service providers were focused on offering differentiated products in order to have a competitive edge in the market.



Source: Communications Authority of Kenya

Similarly, the data sub-market flourished on account of increased coverage and bandwidth to cater for data services; availability of low-cost data enabled devices, increased uptake of OTT services, affordability of Internet service and increased availability of free Wi-Fi in public places.

3.3.1.2 Internet and Broadband

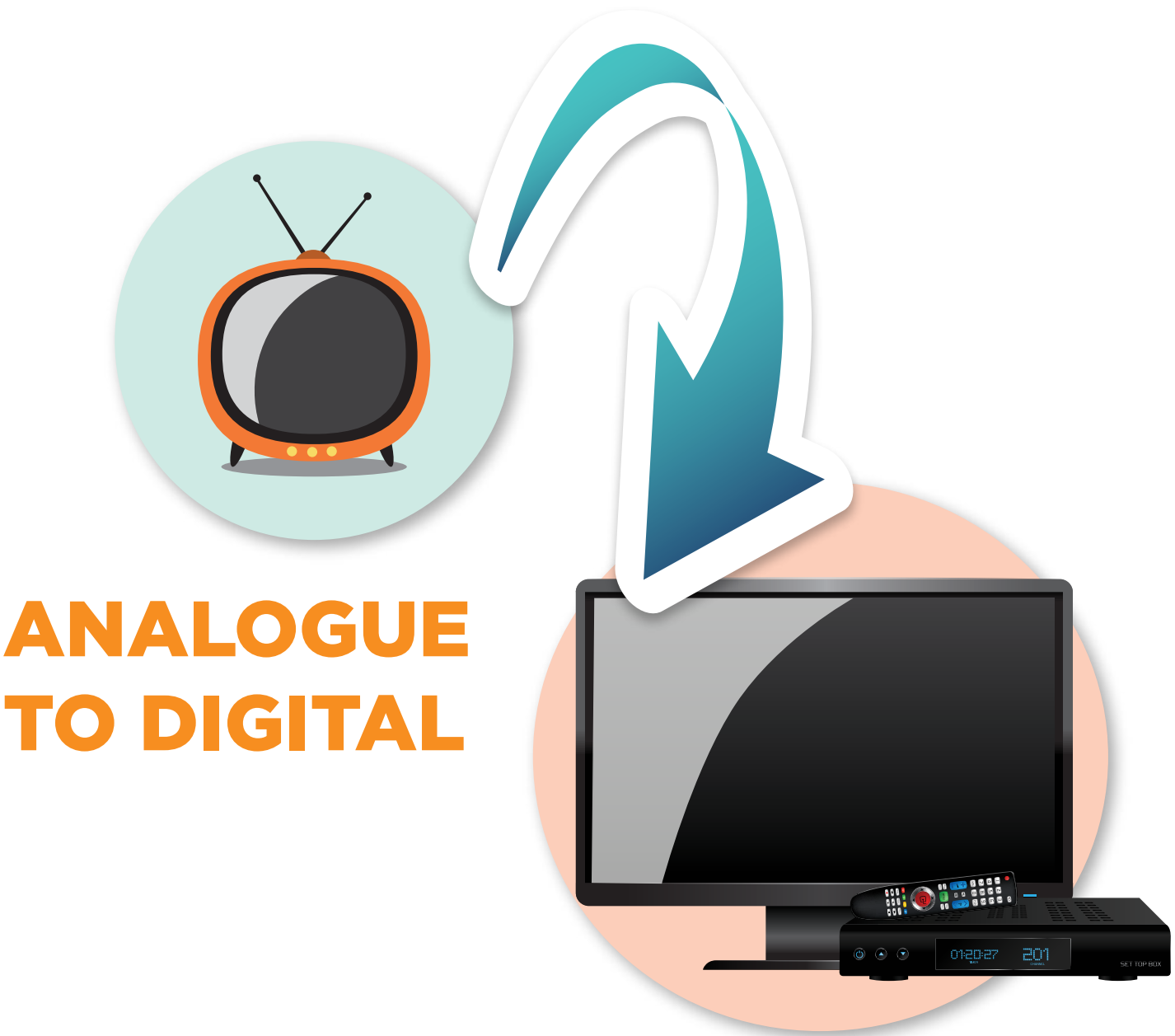
The Internet and broadband market growth continued on an upward trajectory during the year under review. This growth could be attributed to increased demand for bandwidth following the increased use of e-services and OTT services such as Facebook, Twitter, Whatsapp, Instagram, Netflix and You-tube.

There has been increased deployment of fibre optic cables by operators as well as a significant uptake of the Global System for mobile (GSM) services, evidenced by the increased mobile subscriptions during the year under review. Further, the increased uptake of Worldwide Interoperability of Microwave Access (WiMAX) and Very Small Aperture Terminal (VSAT) technologies has seen a steady growth of the Internet and broadband market, which resulted in improved competitive data services to consumers. However, Digital Subscriber Line (DSL) services

have been reducing over the years. The Authority continued to apply a light-handed regulatory approach in order to allow the market to continue taking shape.

3.3.2 Broadcasting Services

In order to facilitate the uptake of digital broadcasting services and following the successful switch from analogue to digital, the Authority reviewed the Broadcasting Signal Distribution tariffs that are prescribed in the Determination No. 1 of 2013 on Cost-Based Terrestrial Digital Broadcasting Signal Distribution Tariff. The revised tariffs are expected to be implemented in the FY 2016/17



CHAPTER 4

ENSURING COMPLIANCE AND EMPOWERING CONSUMERS

4 ENSURING COMPLIANCE AND EMPOWERING CONSUMERS

4.1 Monitoring and Enforcing Compliance

The Authority carries out inspections and quality of service monitoring to verify compliance with Licence conditions and set -Quality of Service thresholds. The Authority also conducts certification of network installations to assess conformance with set installation standards. In addition, the Authority carries out Type-Approval/Acceptance of ICT equipment to ensure that the integrity of public communications infrastructure is maintained. The Authority also carries out inspection of broadcasters and takes enforcement action on non-compliant licencees.

4.1.1 Inspections

The Authority conducted inspections of licencees' operations to confirm their compliance status in all regions of the country.

4.1.1.1 Telecommunications

The Authority conducted 146 inspections on telecommunication licencees offering end user services as well as infrastructure networks offering wholesale services in FY 2015/16. This was a 35 per cent increase from the 108 recorded the previous year.

The compliance level with respect to the inspected licencees was 64 per cent. Non-compliant licencees were issued notices to remedy their areas of non-compliance, while those that could not be traced were issued with licence revocation notices and the revocation process subsequently commenced. The compliance rates for various licence categories are shown in Table 4.1

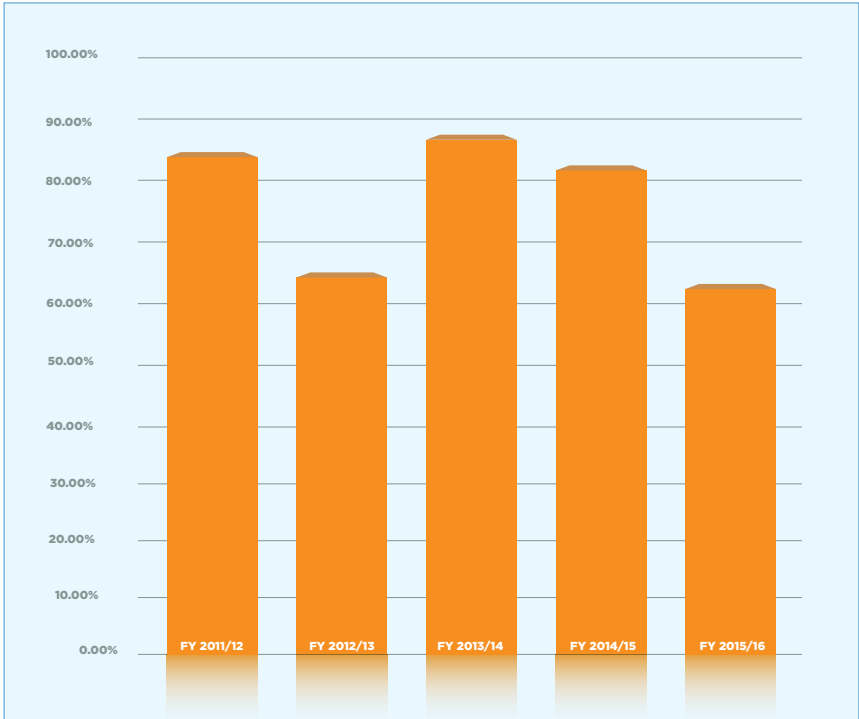
| Table 4.1 Summary of the Telecommunication Licencee Inspections | | | | | | | | | |
|--|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|----------------------|
| Licence Category | Inspected | | | | Compliant | | | | % Compliance 2015/16 |
| | 2012 /13 | 2013 /14 | 2014 /15 | 2015 /16 | 2012 /13 | 2013 /14 | 2014 /15 | 2015 /16 | |
| Content Service Provider (CSP) | 29 | 5 | 39 | 65 | 25 | 5 | 35 | 35 | 54 |
| Application Service Provider (ASP) | 23 | 7 | 25 | 46 | 20 | 6 | 22 | 31 | 68 |
| Network Facilities Provider (NFP) | 10 | 7 | 14 | 17 | 9 | 6 | 12 | 14 | 83 |
| Business Process Outsourcing (BPO) | 4 | - | 1 | 1 | 4 | - | 1 | 0 | 0 |
| International System & Services (ISS)-(IGS/SCLR) | 7 | 6 | 13 | 10 | 7 | 5 | 12 | 9 | 90 |
| Public Data Network Operator (PDNO) | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| Internet Service Provider (ISP) | 0 | 2 | 3 | 1 | 0 | 1 | 0 | 0 | 0 |
| Local Loop Operator (LLO) | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Telecommunications Contractor (TEC) | 0 | 2 | 2 | 5 | 0 | 2 | 2 | 4 | 80 |
| Premium Rate Services (PRS) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Private VSATS | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Cyber | 0 | 10 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| General (BTS Sites, Equipment vendors, SIM Card distributors, cybercafés and mobile money shops) | 7 | 18 | 8 | 0 | 6 | 10 | 8 | 0 | 0 |
| Total | 85 | 57 | 108 | 146 | 75 | 42 | 94 | 93 | 64 |

Source: Communications Authority of Kenya

4.1.1.2 Network Installation Inspections and Certification

The Authority inspected 73 installations of which 47 were compliant. This indicated a 64.4% compliance rate compared to 82.7% reported in FY 2014/15. The inspections revealed that installations undertaken in Nairobi, Mombasa and Kisumu recorded higher compliance levels as compared to the rest of the country. Figure 4.1 shows a comparison of compliance levels for last five years.

Figure 4.1: Percentage of installations that conformed to the set standards



Source: Communications Authority of Kenya

4.1.1.3 Radio-communications

The Authority ensures the usage of spectrum is in accordance with licence conditions by checking parameters for transmission and installation at the authorized transmission sites and other radio station sites at customer premises. In the FY 2015/16, 429 radio installation sites were inspected. These comprised of 397 Fixed Point to Point links, 11 Land Mobile and 21 broadcast installations (13 Sound FM & 8 Digital TV) countrywide as summarized in Table 4.2.

| Table 4.2 Number of Inspections Conducted for the last Five years | | | | | |
|---|----------|----------|----------|----------|----------|
| Year | 2011 /12 | 2012 /13 | 2013 /14 | 2014 /15 | 2015 /16 |
| Land Mobile Networks | 259 | 137 | 108 | 76 | 11 |
| Broadcast Transmitters | 135 | 328 | 58 | 141 | 21 |
| Fixed & Fixed Wireless Access | 167 | 35 | 329 | - | 397 |
| Total | 561 | 500 | 495 | 217 | 429 |

Source: Communications Authority of Kenya

Compliance in Land Mobile Radio Installations

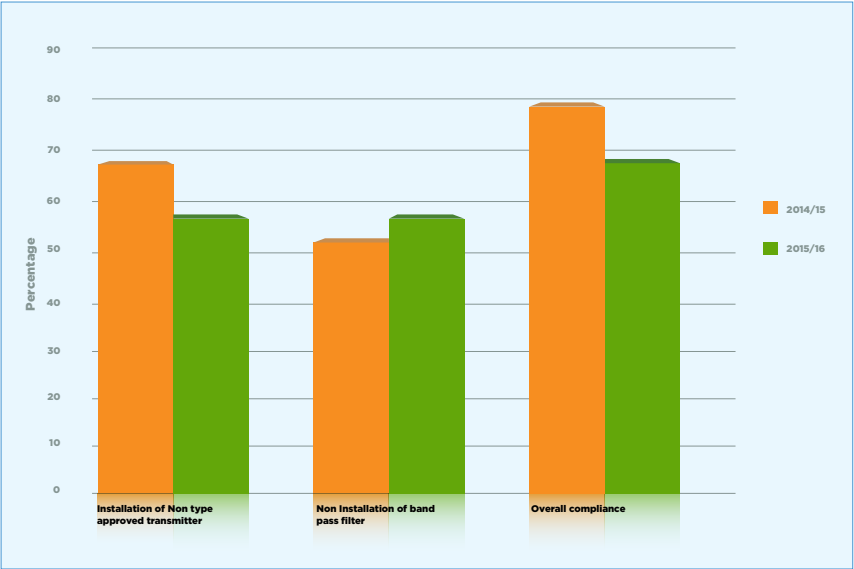
Land Mobile services comprises of radiocommunication in the HF, VHF and UHF frequency bands. The parameters under consideration are Transmit Frequency (ies); Network Configuration; and adherence to Authority's directives. The outcome of the inspection of Land Mobile Networks revealed a compliance level of 81.81 per cent compared to 75.68 per cent in the previous year. The non-compliance was in the form of programming unauthorized frequencies and establishment of unauthorized networks.

Compliance of Broadcast Installations

Broadcasting services comprise of sound broadcasting in the FM frequency band and Digital TV. In inspecting broadcasting installations, the Authority checks licensee's compliance with Transmit Frequency parameters, Installation of Band Pass filter (for FM stations), Equipment Type Approval, Installation Site (whether on authorized site) and adherence to the Authority's directives.

The compliance level for Sound Broadcast stations (FM) was 67.86 per cent while for Digital TV broadcasting was 66.67 per cent. The major non-conformity for the sound broadcast stations (FM) was installation of non-type-approved transmitters while that for FM transmitters was non-installation of band pass filter. Figure 4.2 shows compliance levels in the use of broadcast frequencies.

Figure 4.2: Compliance levels in the use of broadcast frequencies



Source: Communications Authority of Kenya

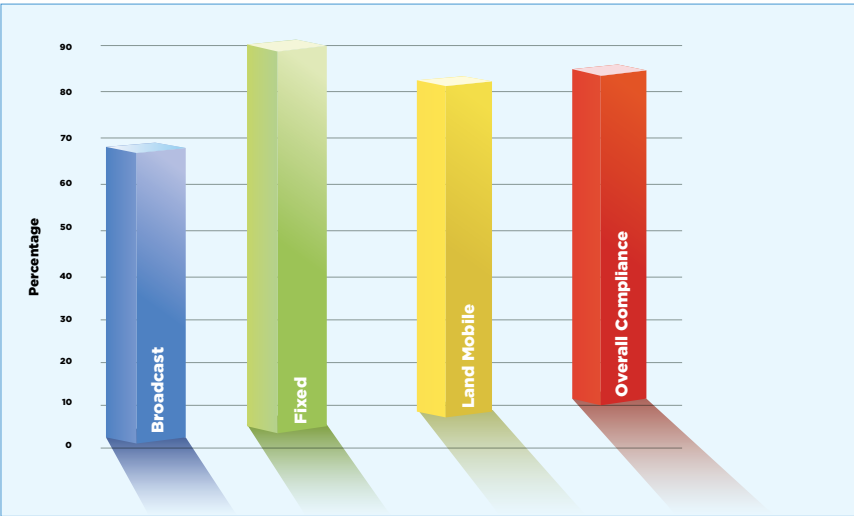
Compliance of Fixed Installations

The Authority undertakes inspections on fixed radio links used by licenced telecommunications service providers for backhaul and/or point-to-point purposes. These inspections focus on: Transmit and receive frequencies; Transmit and receive bandwidth; Installation Site (whether on authorized site) and adherence to the Authority's directives.

The compliance level with respect to fixed links was 89.06%. The main non-conformity was found to be unauthorised fixed links and programming of non-authorized frequencies and/or bandwidth.

The average compliance level for on-site inspection is shown in Figure 4.3.

Figure 4.3 Frequency Compliance Level

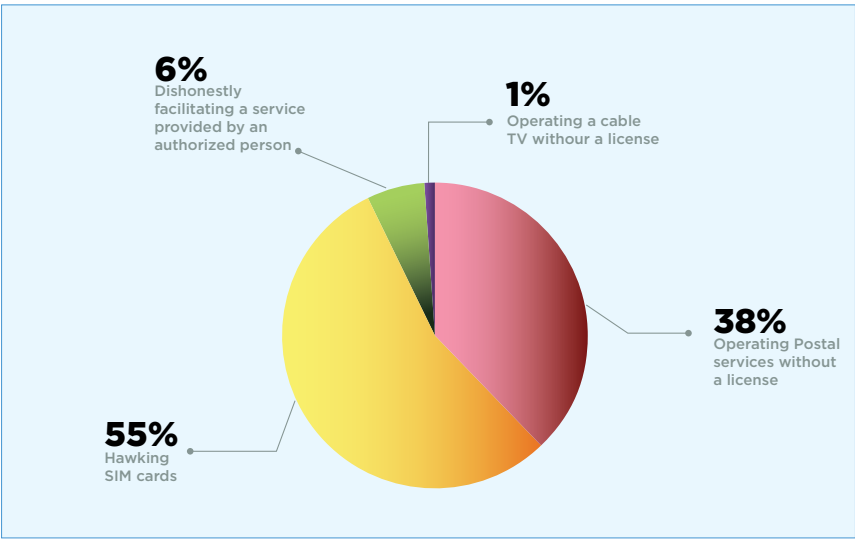


Source: Communications Authority of Kenya

4.1.1.4 Enforcement Activities

The Authority continuously undertakes surveillance in the market to detect and root out unlicensed service providers. In the course of the year, 69 illegal service providers were identified and prosecuted. A summary of the cases is as shown in Figure 4.4.

Figure 4.4: Enforcement Cases



4.1.1.5 Postal and Courier Services

The Authority inspected 270 postal/courier outlets in 43 Counties. This represented an increase of 12 per cent compared to the FY 2014/15 in which 241 inspections were conducted. The inspections covered 173 Postal Corporation of Kenya (PCK) outlets and 97 courier outlets.

The inspections established that 205 outlets out of the 270 inspected were not fully compliant with all required aspects of operational compliance. Some of the identified areas of non-compliance included: charging unauthorised tariffs; failure to display tariffs and notices on prohibited items; failure to provide customer complaint forms and lack of appropriate measures to safeguard customer items.

The Authority issued non-compliant licencees with notices requiring them to rectify their various areas of non-compliance. By the close of the financial year, all non-compliant licencees had instituted corrective measures.

4.1.2 Interference Resolution and Radio Monitoring

The Authority protects authorised users of spectrum by ensuring non-interruption of communication using assigned spectrum. This is achieved via monitoring of spectrum to ascertain its suitability for assignment and resolving frequency interference on assigned frequencies as soon as they occur.

4.1.2.6 Interference resolution

A total of 31 new cases of interference were reported in the year under review. These comprised of 12 VHF, 7 UHF, 5 SHF and 7 in the broadcasting bands. Two VHF and 1 SHF cases were carried over from FY 2014/15 resulting in a total of 34 cases. 30 cases were resolved representing a resolution rate of 88.23 per cent compared to 80 per cent in FY 2014/15. This is summarised in Table 4.3

| Table 4.3 Number of Frequency Interference Cases | | | | | | | | | | |
|--|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
| Year | 2011/12 | | 2012/13 | | 2013/14 | | 2014/15 | | 2015/16 | |
| Frequency Band/ Service | Total | Resolved | Total | Resolved | Total | Resolved | Total | Resolved | Total | Resolved |
| VHF, UHF and SHF | 18 | 20 | 19 | 19 | 17 | 15 | 13 | 10 | 27 | 25 |
| HF | 1 | 2 | 3 | 3 | - | - | - | - | - | - |
| Broadcasting | 4 | 4 | 7 | 6 | 5 | 5 | 2 | 2 | 7 | 5 |
| Total | 23 | 26 | 29 | 28 | 22 | 20 | 15 | 12 | 34* | 30** |

**Total cases include both what was reported in the year and unresolved from FY 2014/15.*
***The unresolved cases in FY 2015/16 will be carried over for resolution in FY 2016/17*
Source: Communications Authority of Kenya July 2016

4.1.2.7 Frequency Monitoring

There were 24 cases for radio monitoring in HF, VHF, UHF and SHF bands. The Authority also conducted FM and TV broadcast monitoring through inspections in Nakuru, Nyahururu, Eldoret, Kapenguria, Timboroa, Londiani, Nyeri, Embu, Muranga, Meru, and Isiolo. Table 4.4 provides the number of frequency interference cases for the past five years

| Table 4.4 Number of Frequency Interference Cases | | | | | |
|--|---------|---------|---------|---------|---------|
| Year | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| V/U/SHF | 19 | 34 | 9 | 13 | 15 |
| HF | 6 | 4 | - | 2 | 2 |
| Broadcast (Surveillance) | - | 22 | 26 | 62 | 7 |
| Total | 25 | 60 | 35 | 77 | 24 |

Source: Communications Authority of Kenya

4.1.2.8 Radio Spectrum Management and Monitoring System

The Authority installed and deployed a new Spectrum Management and Monitoring System (SMMS) increasing the country's capacity in spectrum management and monitoring. The system expanded the geographical area under spectrum monitoring and automated frequency management and administration processes leading to improved efficiency and accuracy in frequency licensing and billing data.

Figure 4.5: Mobile Monitoring Stations



4.1.2.9 Quality of Service Monitoring (Voice)

In order to ensure that consumers receive quality voice service, the Authority has set quality of service thresholds for the mobile service providers. Subsequently, the Authority carries out regular monitoring exercises to establish the overall performance against these thresholds.

The overall performance of the three network operators was 50 per cent, which was lower as compared to 62.5 per cent recorded in FY 2014/15. The details are illustrated in the table 4.5.

| Table 4.5 Operator Compliance Status on Quality of Service | | | | | | | | | |
|--|-------------------------------|------------|--------|----------------------|------------|--------|-------------------|------------|--------|
| Key Performance Indicator (KPI) | Airtel Networks Kenya Limited | | Status | Telkom Kenya Limited | | Status | Safaricom Limited | | Status |
| | 2014/15 | 2015/16 | | 2014/15 | 2015/16 | | 2014/15 | 2015/16 | |
| Call Set-up time (in seconds) | 5.31 Sec | 5.64 Sec | C | 7.78 Sec | 7.35 Sec | C | 5.99 Sec | 6.87 Sec | C |
| Call Set-up Success Rate(CSSR) | 91.10% | 94.00% | NC | 85.60% | 93.30% | NC | 90.70% | 92.70% | NC |
| Call Drop Rate | 1.50% | 2.30% | NC | 1.90% | 2.20% | NC | 2.00% | 6.50% | NC |
| Speech Quality (MOS) | 3.13 | 3.24 | C | 3.41 | 3.46 | C | 3.53 | 3.37 | C |
| Block Rate | 8.90% | 6.10% | NC | 14.50% | 6.90% | NC | 9.30% | 7.40% | NC |
| Call completion Rate | 89.60% | 91.54% | NC | 83.60% | 90.80% | NC | 88.80% | 85.60% | NC |
| RX Level | -75.65 dBm | -76.69 dBm | C | -71.11 dBm | -72.46 dBm | C | -70.46 dBm | -79.35 dBm | C |
| Call Handover rate | 98.16% | 97.50% | C | 95.75% | 96.64% | C | 97.27% | 97.20% | C |

C- Compliant; NC - Non-Compliant

4.1.2.10 Quality of Service Monitoring (Postal)

The Authority implemented an automated mail Quality of Service monitoring system which uses Radio Frequency Identification (RFID) System technology to monitor test mail delivery timelines between the Post Offices. The system was installed in 20 Post offices across the country.

4.1.2.11 Broadcasting content monitoring

The Authority developed the Programming Code for Free-To-Air Broadcasting services in Kenya as required under Section 46H of KICA. The Programming Code sets standards for the time and manner of programmes to be broadcast by various free-to-air broadcasting service providers. To inform implementation of the Programming Code, a national survey on attitudes and perceptions of audiences towards standards of good taste and decency in broadcasting in Kenya was conducted during the financial year.

In addition, the Authority developed a Complaints Handling Procedure which sets out the steps to be taken by broadcasters, consumers of broadcast services and the Authority with respect to making, receiving, handling and resolving of broadcast related complaints.

Besides developing media standards, Section 46A further, requires the Authority to monitor compliance with the Authority monitored broadcasting stations for compliance with various content regulation parameters.

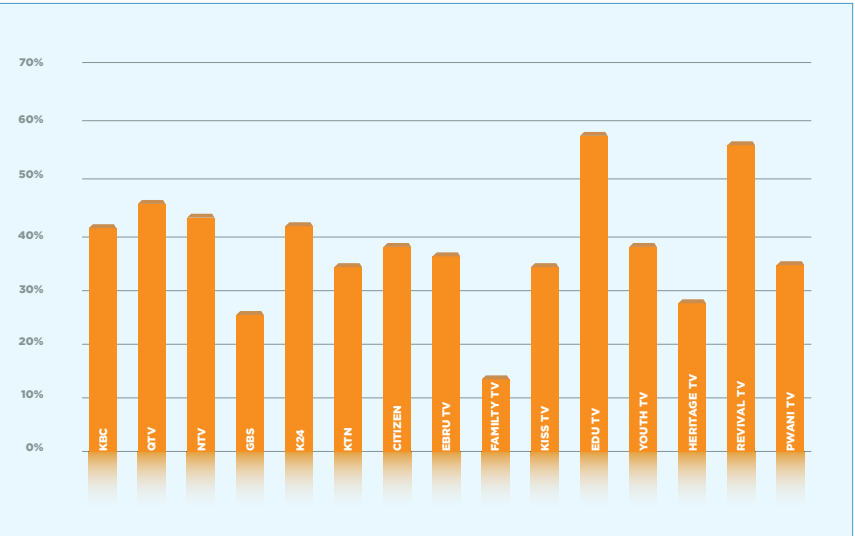
i. Local content

The Authority carried out an independent Local Content Base-line Survey to determine the proportion of local content aired by free-to-air television broadcasters. The objective of this survey was to identify appropriate regulatory interventions that would spur uptake of local content programming by broadcasters. The

findings of the survey established that the level of local content was 35 per cent across the TV stations.

In addition, the Authority monitored 15 TV stations whose average local content for the year are shown in figure 4.6. Six (6) of the 15 TV stations were compliant with the prescribed local content quota of 40 per cent while nine (9) did not meet the required threshold.

Figure 4.6: Average Local Content Proportions for 15 TV Stations Monitored



ii. Accessibility Mechanism for Persons with Disabilities

In order to facilitate access to broadcasting services to Persons with Disability (PwDs), three (3) stations that provide news as part of their programming complied by providing sign language interpretation inserts in their news bulletins and events of national importance. Additionally, the Authority developed specifications for set-top boxes (STBs) and Integrated Digital Televisions (iDTV) with assistive features.

iii. Compliance to other broadcasting standards

During the year, seven stations comprising one TV station and six radio stations were found to be in breach of the standard on protection of minors/children while one TV station contravened the requirement on good taste and decency.

iv. Broadcasting Content Development

Several initiatives geared towards development of local content for the broadcasting industry were undertaken. These included workshops on building the capacity of the local content production industry and an inaugural local content film market dubbed Soko to showcase the available local content to broadcasters and provide a platform where broadcasters could enter into affordable content partnership agreements with content producers.

| Table 4.6 Compliance Returns Status for the FY 2015/16 | | | | | | | | | |
|--|----------------------|----------|----------|---|----------------|----------|----------|----------|----------|
| Indicators | Operational Licences | | | Licensees that Submitted Compliance Returns | | | | | |
| | | Number | | | Percentage (%) | | | | |
| Licence Category | 2013 /14 | 2014 /15 | 2015 /16 | 2013 /14 | 2014 /15 | 2015 /16 | 2013 /14 | 2014 /15 | 2015 /16 |
| Network Facility Provider | 28 | 31 | 42 | 25 | 24 | 30 | 89.29% | 77.42% | 71.43% |
| Application Service Provider | 75 | 107 | 110 | 55 | 75 | 94 | 73.33% | 70.09% | 85.45% |
| Content Service Provider (CSP) | 134 | 170 | 168 | 120 | 132 | 145 | 89.55% | 77.65% | 86.31% |
| International Systems and Services | 13 | 13 | 12 | 12 | 12 | 11 | 92.31% | 92.31% | 91.67% |
| Submarine Cable Landing Rights | 3 | 3 | 3 | 3 | 3 | 3 | 100.00% | 100.00% | 100.00% |
| Business Process Outsourcing (BPO) | 5 | 7 | 9 | 5 | 7 | 5 | 100.00% | 100.00% | 55.56% |
| Data Carrier Network Operator /PDNO | 3 | 4 | 0 | 3 | 2 | 0 | 100.00% | 50.00% | 0.00% |
| Local Loop Operators | 2 | 2 | 2 | 2 | 2 | 2 | 100.00% | 100.00% | 100.00% |
| Internet Service Provider (ISP) | 3 | 3 | 0 | 1 | 0 | 0 | 33.33% | 0.00% | 0.00% |
| Premium Rate Services (PRS) | 16 | 16 | 10 | 11 | 10 | 8 | 68.75% | 62.50% | 80.00% |
| Telecomm contractors (TEC) | - | - | 392 | - | - | 264 | - | - | 67.35% |
| Technical Personel | -- | - | 405 | - | - | 245 | - | - | 60.49% |
| Total | 282 | 356 | 1153 | 237 | 267 | 807 | 84.04% | 75.00% | 69.99% |

Source: Communications Authority of Kenya

4.1.3 Returns from Operators

Submission of quarterly and annual compliance returns by licencees provides a means by which the Authority is able to determine the operational status of each licensee. The compliance returns provide information on various aspects of licencees' operations and also provide information on their facilities, services and subscriber growth, among other statistical information. The information submitted is used for the determination of adherence to sector policy requirements on ownership, tax compliance, as well as assessment of market growth and development.

4.1.3.12 Returns from Telecommunication Operators

In FY 2015/16, the Authority received returns from 807 licencees compared to 267 in the previous year. The increase is attributed to significant migration to ULF by entities licenced in the previous licensing framework and inclusion of Telecommunication Contractors and Technical Personnel in this year's reporting. Table 4.6 indicates the compliance returns submission status of various licence categories.

4.1.3.13 Returns from Postal and Courier Operators

The Authority received compliance returns from the PCK and 94 courier operators in FY 2015/16. This was a slight increase of 13.1 per cent compared to FY 2014/15 in which submissions were received from PCK and 83 courier operators. The increase in the number of licencees submitting compliance returns is attributed to the Authority's enhancement of its compliance monitoring mechanism of the postal/courier industry.

4.1.4 Type Approval

To ensure conformity to national and/or international standards and interoperability of telecommunication networks, the Authority type-approves/accepts communications equipment. During the year, 434 applications for equipment type-approval/acceptance were received and approved as shown in Table 4.7.

| Table 4.7 Type Approval/Acceptance Applications Handled | | | | | |
|---|---------|---------|---------|---------|---------|
| Equipment Type | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Data Routers | 5 | 2 | 2 | 2 | 7 |
| Gateway/Switches/PABX | 4 | 2 | 2 | 12 | 16 |
| PSTN/IP Server Equipment | 6 | - | 1 | - | 0 |
| Wireless Terminals/System | - | - | - | - | 0 |
| Transceiver-VHF/UHF | 5 | 9 | 16 | 22 | 16 |
| Transceiver-HF | - | 1 | - | - | 0 |
| Transceiver-Citizen Band (CB) | - | - | - | - | 0 |
| Low Power Wireless Terminals | 111 | 58 | 203 | 147 | 182 |
| Satellite Terminal | 1 | - | - | - | 0 |
| Alarm Transmitter | - | - | - | - | 0 |
| Broadcast Equipment | 6 | 21 | 17 | 7 | 1 |
| VSAT Equipment (Transceiver, BUC, HPA, etc) | 8 | 5 | 2 | - | 0 |
| Global System for Mobile Communications (GSM) Interface and BTS | 6 | 6 | - | - | 3 |
| CDMA Interface | 1 | - | - | - | 0 |
| VOIP Terminal | 1 | 2 | - | - | 0 |
| Telephone Set | - | - | - | - | 0 |
| Payphone | - | - | 1 | - | 0 |
| GSM Mobile Phones | 60 | 61 | 101 | 186 | 161 |
| CDMA Telephone Set | - | - | - | - | 0 |
| Fax Machine | 8 | 3 | - | - | 13 |
| Modem | 2 | - | - | - | 1 |
| DVB T2 receivers (Set-top boxes, IDTV and conditional access modules) | 7 | 32 | 56 | 44 | 27 |
| LTE Terminals | 0 | 0 | 0 | 0 | 5 |
| Microwave Equipment | 8 | 2 | 5 | 8 | 2 |
| Total | 238 | 204 | 406 | 428 | 434 |

Source: Communications Authority of Kenya

The number of low power devices type approved increased from 147 in the previous year to 182 in the year under review. The decrease in the number of DVB-T2 terminals approved within the year is attributed to the levelling of the market of the devices after the digital migration.

The Authority continued to facilitate the entry of communications equipment in the country through provision of customs clearances. In the year under review, the Authority processed 73 applications for equipment import clearance compared to 81 applications in the previous year.

4.1.5 Cyber Security Management

In order to mitigate the effects of cyber-crime activity in Kenya, and in line with Kenya's ICT Sector Policy, KICA and the National Cyber-security Strategy, the Authority established the Kenya Computer Incident Response Team - Coordination Centre (National KE-CIRT/CC). This is a multi-government agency collaboration established to expedite responses to cyber-attacks and coordinate resolution of cyber-crime activities. This is Kenya's trusted point of contact for coordinating response to cyber-attacks and remediation of cyber-security incidents.

The National KE-CIRT/CC detected, resolved and prevented various cyber-crimes that included: cases of malware attacks, brute force attacks, web attacks, social media abuse and impersonation, website defacement, denial of service attacks, hacking of email accounts. Based on this, the National KE-CIRT/CC sent out advisories and alerts to the National KE-CIRT/CC Cyber-Security Committee (NKCC) constituents.

The National KE-CIRT/CC strengthened trust networks at the national, regional and international level. The National KE-CIRT/CC continued to collaborate with law enforcement agencies, the financial sector, the telecommunication industry, academia, public utility companies and critical infrastructure service providers. The collaboration builds synergy in the prevention of cyber security incidents, thus stimulating rapid response, and the promotion of information sharing among members and the community at large.

Figure 4.7 and 4.8 shows a summary of the report on National Cyber Threats Detected.

Figure 4.7: Cybercrime incidents reported in FY 2015/16

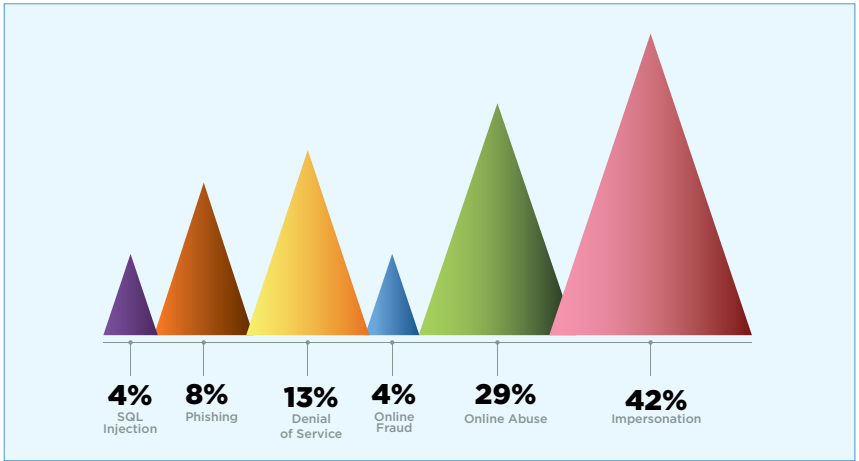
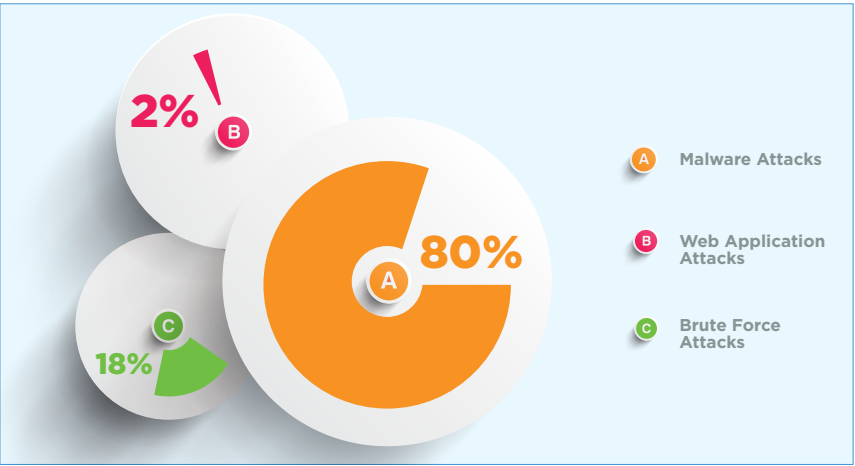


Figure 4.8: Cybercrime incidents reported in FY 2015/16



4.1.6 De-activation of Counterfeit Telephone Handsets

The Authority continued to implement measures aimed at eliminating the use of counterfeit communications devices by enabling consumers verify the authenticity of their devices using Short Code 1555. At the end of FY 2015/16, a total of **111,508** IMEI requests were received from mobile service subscribers as shown in Table 4.8.

| Table 4.8 IMEI Verification Requests | | | |
|--|------------|----------|---------|
| | 2013/14* | 2014/15* | 2015/16 |
| Number of Requests Where the IMEI Was Not Found | 1,480,170 | 34,227 | 11,851 |
| Number of Requests Where the IMEI Was Less Than the required 15 Digits | 3,633,424 | 145,662 | 29,323 |
| Number of Requests Where the IMEI Was Found | 10,883,632 | 198,758 | 70,334 |
| Total Number of Requests | 15,997,226 | 378,647 | 111,508 |

* These figures have been revised

Source: Communications Authority of Kenya

4.1.7 Evaluation of Environment Impact Assessment (EIA) Reports

In accordance with Environmental Management and Coordination Act (EMCA), No. 8 of 1999, the Authority is the lead agency mandated to collaborate with the National Environmental Management Authority (NEMA) on ICT related environmental matters. In line with section 60 of the EMCA, NEMA routinely submits to the Authority EIA reports on proposed telecommunication installations for review. During the year, the Authority assessed 107 EIA reports.

4.2 Empowering and Protecting the Consumer

The Authority is charged with the responsibility of protecting ICT consumers. It undertakes this responsibility by continually implementing appropriate regulatory interventions. These include: consumer awareness campaigns; consumer research and surveys; service delivery monitoring and improvement mechanisms; and handling of complaints and enquiries.

4.2.1 Consumer Education and Information

The Authority acknowledges that children and the youth, as consumers of communication services, are increasingly being exposed to the risks and vulnerabilities in cyberspace while accessing the Internet. In line with the ITU Child Online Protection (COP) Initiative, the Authority developed and launched the Child Online protection campaign dubbed “Be The COP”. The campaign was developed in collaboration with the Department of Children Services, the Cradle, Kenya Girl Guides Association, Kenya Scouts Association, Kenya Association of Professional Counselors, United Nations Children's Fund (UNICEF), Google, Plan International, Terre des Hommes, Childline Kenya, GSMA and mobile service providers; Orange, Airtel and Safaricom.

The campaign was launched on 4th August, 2015 during the Kenya Primary School Headteachers Association (KEPSHA) 11th Annual Delegates Conference. Subsequently, the Authority executed a three-month media and awareness campaign in line with the following key messages: risks and vulnerabilities faced by children and youth online; guidelines on how to protect the children and youths from online related risks as well as safe use of the Internet. Further, the Authority held a sensitization forum for bloggers with a view to increase and sustain social media discussions around child online protection.

The Authority further availed consumer information through several channels. These channels included: the Agricultural Society of Kenya (ASK) Shows in Kisumu and Mombasa and Trade Fair in Nairobi; Postal Corporation of Kenya outlets countrywide; Exhibition during the Kenya Secondary School Heads Association (KESSHA); the 3rd Annual Children's Government Congress;; County ICT Consumer Forums; events hosted by the Authority's partners in COP and the Authority's Reception areas; Corporate events/website/social media platforms, and Regional Offices. A total of 144,675 consumer education materials were distributed during the year.

The Authority held County ICT Consumer Fora in Taita Taveta, Kajiado, Meru, Laikipia, and Kisii dubbed ‘Kikao Kikuu’ under the theme ‘Toa Maoni Yako Kuhusu Mawasiliano’. These fora empowered consumers with information on their rights and responsibilities and also raised awareness on the Authority's role in protecting consumers. This also provided a platform for consumers to directly interact with the Authority as well as communication service providers and consumer organizations.

4.2.2 Understanding Consumers

The Authority carried out surveys to understand consumer needs for the development of appropriate consumer protection regulations. The surveys established consumer behaviour with regard to; purchase and usage of ICT services; motivation to switch service providers; sources of ICT information and the level of trust they attribute to the sources. The surveys also established the level of consumer awareness on the Authority's role in consumer protection and their level of usage of the available consumer protection mechanisms.

4.2.3 Service Delivery

In its effort to improve service delivery, the Authority embarked on the implementation of a 5-year Service Delivery Improvement Strategy. As part of this strategy, the Authority developed and implemented a service delivery awareness campaign that sought to increase awareness of the Authority's service charter commitments. The Authority re-launched its revised customer service charter.

A Customer Satisfaction Survey targeting both internal and external customers was carried out in the last quarter of the FY 2015/16. External customers included licencees, suppliers, consumers, partners and affiliates while internal customers are the Authority's employees. The satisfaction index improved to 77.38 per cent from 71.03 per cent recorded in the previous financial year.

In its effort to enhance service delivery and achieve customer satisfaction, the Authority put in place an automated service delivery monitoring system. This tool is aimed at tracking service delivery commitments as spelt out in its charter. In addition, a customer care desk was established as part of the envisaged customer service centre.

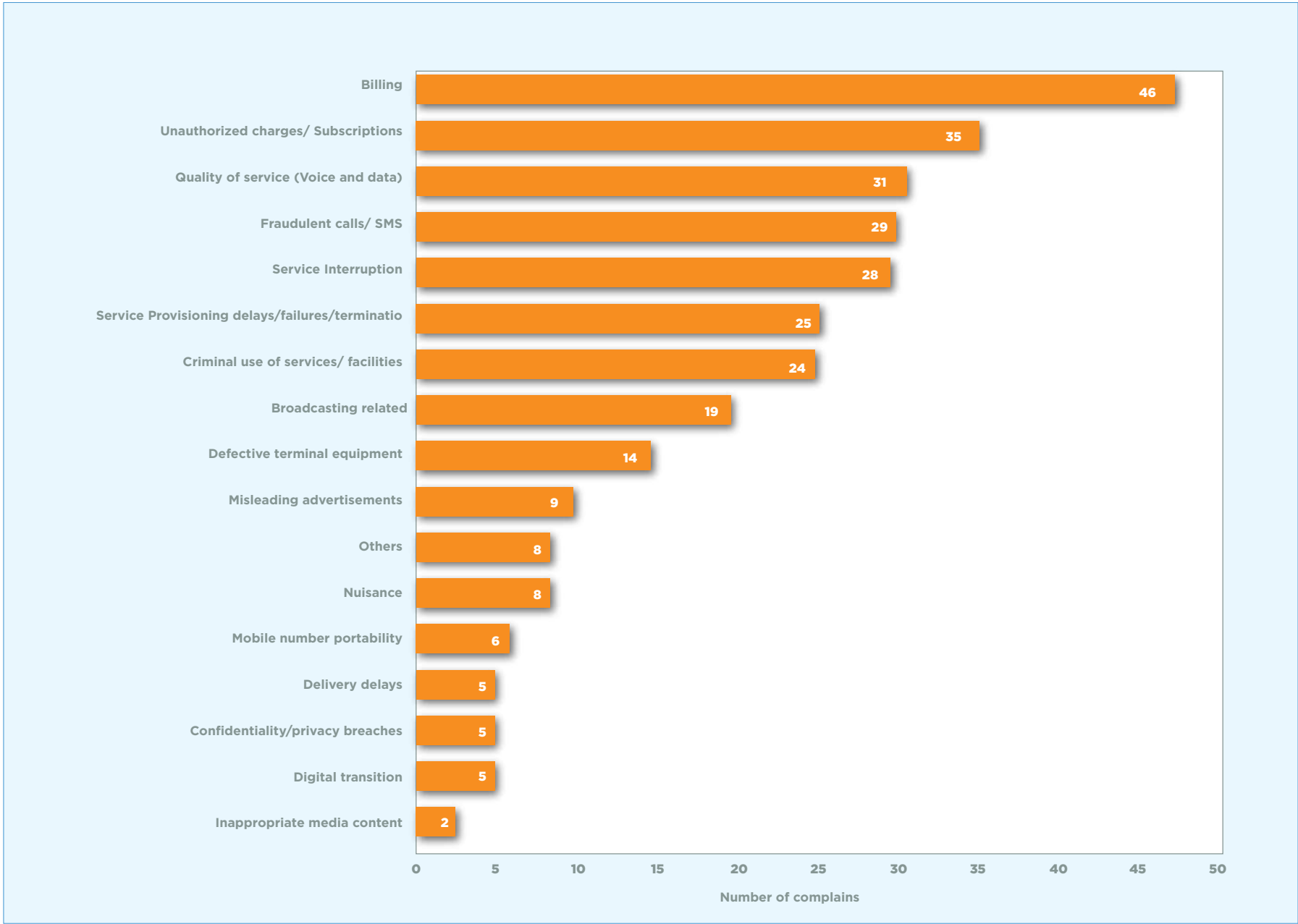
4.2.4 Consumer Protection

The Authority in collaboration with UNICEF held a stakeholders workshop to facilitate the development of a national child online protection framework. This framework aims at addressing child online protection and exploitation while at the same time facilitating the development of mechanisms to the strengthen capacity for the implementation of the framework.

4.2.5 Resolution of Consumer Complaints and Enquiries

The Authority resolved 121 out of 301 complaints received during the year representing a resolution rate of 40 per cent. The major categories of complaints received and their proportionate shares are as highlighted here in figure 4.9 and Table 4.9:

Figure 4.9: Categories of Complaints Received in the 2015/2016 FY.



A summary of the above is provided in Tables 4.9 and 4.10 below.

| Table 4.9 Number of Complaints Received | | | | | |
|--|-------------------------------|---------|---------|-----------|-----------|
| | Number of Complaints Received | | | | |
| Complaint Category | 2011/12 | 2012/13 | 2013/14 | 2014/2015 | 2015/2016 |
| Unauthorized Charges/Subscriptions | 139 | 170 | 204 | 74 | 35 |
| Billing | 43 | 77 | 70 | 30 | 46 |
| Service Interruptions | 47 | 48 | 72 | 26 | 28 |
| Criminal Use of Services/Facilities | 13 | 26 | 43 | 21 | 24 |
| Service Provisioning Delays/Failures/Termination | 29 | 24 | 32 | 36 | 25 |
| Quality of Service (Voice and Data) | 39 | 23 | 41 | 13 | 31 |
| Counterfeit Phones | - | 17 | - | - | - |
| Inappropriate Media Content (Broadcasting) | 10 | 16 | 9 | - | 2 |
| Digital Transition | - | 12 | 28 | 14 | 5 |
| Fraudulent Calls/SMS | 18 | 12 | 28 | 5 | 29 |
| Mobile Number Portability | 91 | 11 | 10 | - | 6 |
| Confidentiality/Privacy Breaches | 4 | 9 | 3 | 8 | 5 |
| Nuisance | 3 | 8 | 16 | 10 | 8 |
| Defective Terminal Equipment | 9 | 7 | 14 | 12 | 14 |
| Tariffs | 1 | 6 | 6 | - | - |
| Misleading Advertisements | 5 | 4 | 3 | 4 | 9 |
| Delivery Delays | 6 | 3 | 7 | 3 | 5 |
| Frequency Interference | 6 | 3 | 7 | | |
| SIM Registration | - | 3 | 6 | - | - |
| Identity Theft | 2 | 2 | 5 | - | - |
| Electromagnetic Radiation | 1 | 1 | | 1 | 1 |
| Unfair Trading Practices | 3 | - | 3 | - | 1 |
| Warranty Violations | 1 | 0 | - | - | - |
| Others | 5 | 11 | 37 | 5 | 8 |
| Total | 475 | 493 | 644 | 262 | 282 |

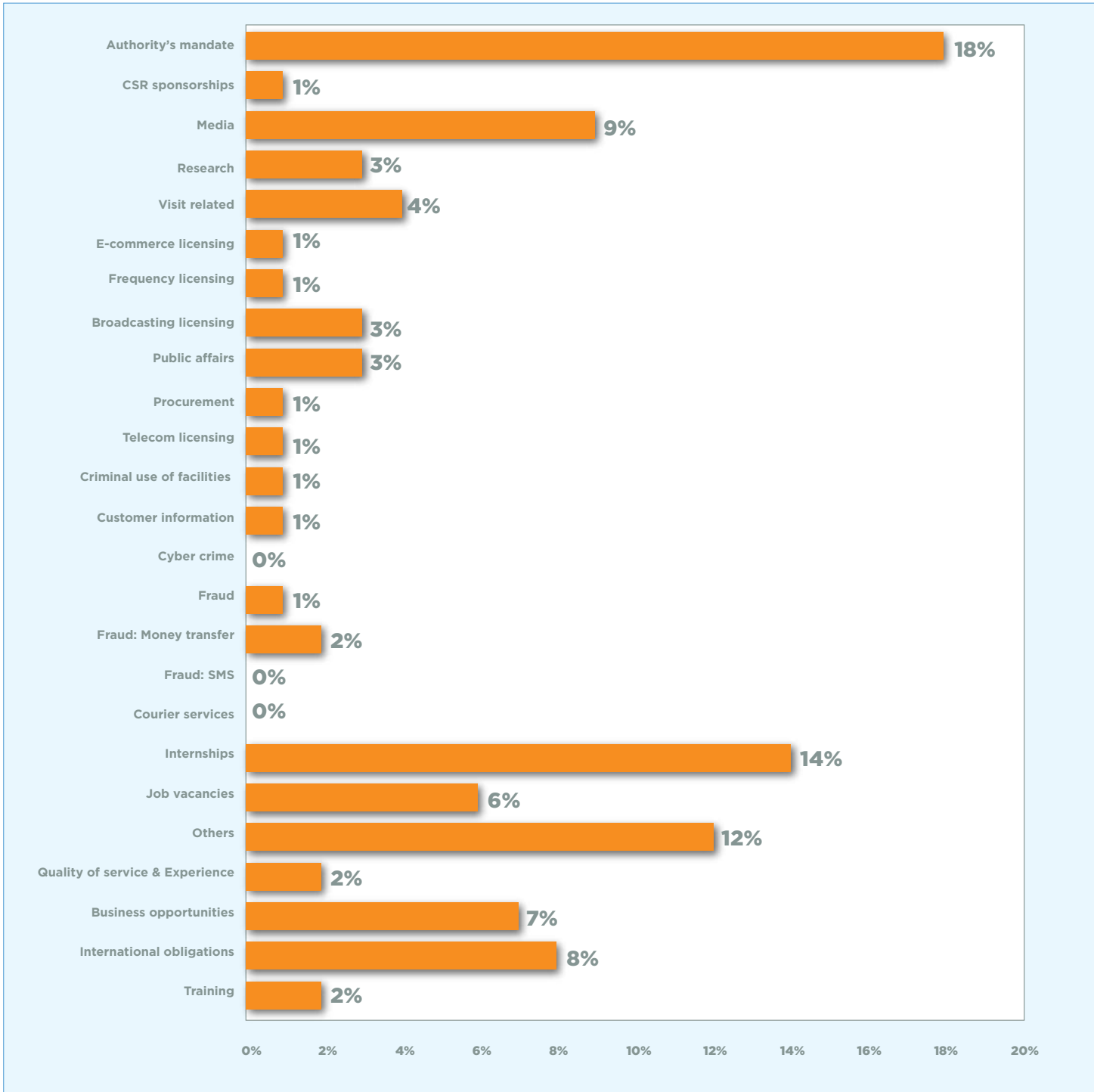
Source: Communications Authority of Kenya

4.2.6 Resolution of Enquiries

The Authority received 1,982 enquiries in the year compared to 1,903 in the FY 2014/15. The bulk of the enquiries were general in nature, while the rest of the enquiries were specific to various aspects of the Authority’s mandate. While the Authority endeavoured to respond to enquiries relevant to it, there are some that were entirely not related to it but relevant to other institutions. These were handled by referring the enquirers to the respective institutions where they could get the necessary information.

The Figure 10 shows proportionate representation of the enquiries received

Figure 4.10: Representation of the Enquiries Received in the 2015/2016 FY.



Communications Authority of Kenya (CA) Chairman Mr. Ngene B. Gituku (left), Taita Taveta Governor John Mruttu (second left), CA's Ag. Director, Consumer and Public Affairs, Mr. Christopher Wambua, (second right) and CA Director General Mr. Francis Wangusi, (right) during the *Kikao Kikuu* forum in Taita Taveta County.



Kajiado Governor Mr. David Nkedianye (standing) addressing participants at the *Kikao Kikuu* forum in Kajiado.

CHAPTER 5

ROADMAP TO UNIVERSAL ACCESS

5 ROADMAP TO UNIVERSAL ACCESS

In order to ensure that all in Kenya have access to and use of information and communication services, the Government established the Universal Service Fund (USF). This fund is governed by the Authority with oversight of the Universal Service Advisory Council (USAC), which is appointed by the Government. As provided by KICA, the Authority collects funds from all licencees offering communication services on a commercial basis.

The USF is designed to leverage operations in high cost areas through provision of grants and subsidies in order to support widespread access to ICT services, capacity building in ICTs and support technological innovations.

5.1 Implementation of the Universal Service Fund

In accordance with Section 102A (1) of KICA, USAC comprises of nine members who oversee the operationalization of the Fund and provide strategic policy guidance to the Board of Directors of the Authority. The Current USAC members were appointed on May 9, 2014 for a three year term.

5.2 E-Resource Centres

The Authority, in collaboration with Kenya National Library Service (KNLS), supported the establishment of additional 46 e-resource centres within public libraries in 27 Counties. This followed the successful piloting of 10 e-resource centers during FY 2014/15. The Authority's contribution towards the establishment of e-Resource centers included the following: Computer hardware and software (10 computers, each 1 printer and 1 server) requisite furniture, Local Area Network (LAN) Cabling; solar energy for 7 centres not connected on the National Grid; and internet connectivity for two years.

5.3 Use of ICTs by Public and Business Enterprises

The Authority partnered with the Kenya National Bureau of Statistics (KNBS) and the United Nations Conference on Trade and Development (UNCTAD) to undertake a survey aimed at measuring the progress in the use of ICTs by Public and Business Enterprises. The findings of the survey will inform policy makers, investors, academicians and business leaders on the current uptake of ICTs in Kenya.



LEFT TO RIGHT: Director General Francis Wangusi, USAC Chairperson Dr. Catherine Ngahu, USAC Member Nixon Gecheo, Chairman of the Board Mr. Ngene B. Gituku during the release of the Access Gap study report.

The survey targeted 890 public sector institutions and 3,530 business enterprises across 43 Counties and sought information on the following key areas: General information of the Public and Business Enterprises access and use of ICTs; Use of ICT infrastructure such as fixed telephone, mobile, facsimile Computer and other ICT devices; Ownership, access and use of Internet, intranet and extranet; Use of mobile applications such as the mobile money platforms; Use of communication applications such as website, email and social media; Use of online applications such as cloud computing, e-commerce; Existence of ICT policies in security and e-waste management; Expenditure on ICTs; and Perception on the use of ICTs. This survey will be finalized in the FY 2016/17.

5.4 ICT Access Gaps

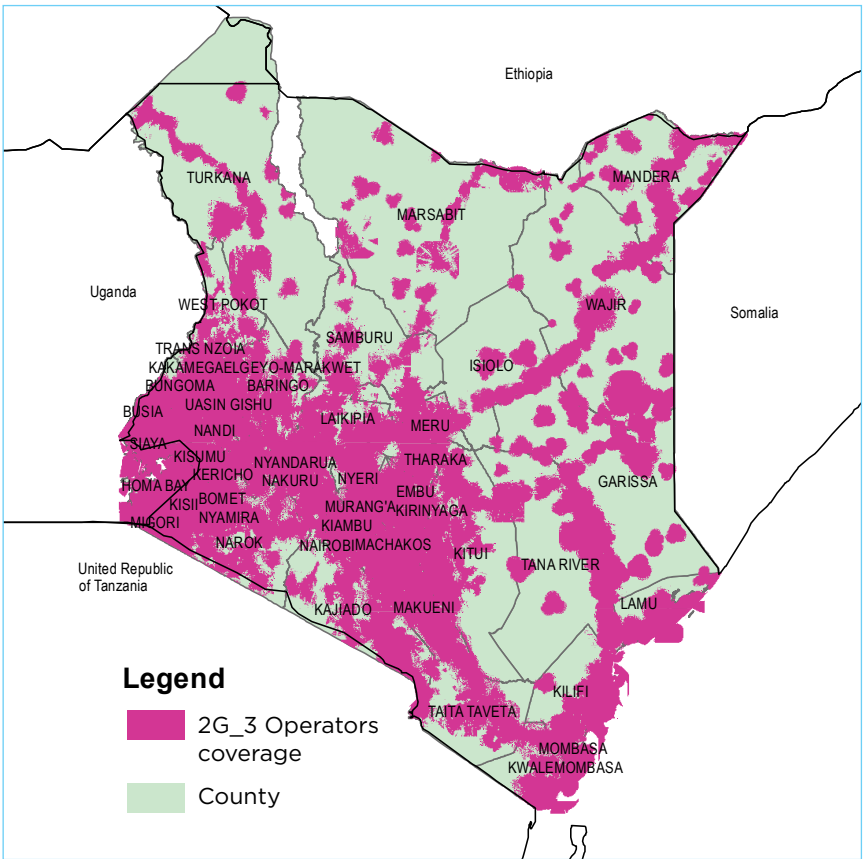
Over the decade, the growth and development of the communications industry in the country has been largely guided by forward-looking regulation and competition in the market. As such, wide range of communication services has become accessible and affordable to majority of the population in areas deemed viable for investment by the private sector. However, even with these regulatory interventions, there are areas in Kenya with significant population sizes that still lack access to basic ICT services. Successful operationalization of the USF is premised on the identification of the ICT access gaps and proper design and implementation of suitable intervention programmes and projects.

The Authority conducted a Study on ICTs Access Gaps in Kenya. The main objective of the study was to assess the level of communication coverage and levels of access achieved since the last Access Gaps study in 2011.

5.4.1 2G Mobile voice services

The spatial analysis showed that 5.6 per cent of the Kenyan population had no access to voice communications services. Whereas geographical coverage is only 45 per cent of Kenya's land area, 94.4 per cent of the population is already covered by 2G mobile services. Out of 7,149 sub-locations, only 164 did not have 2G coverage, while a further 418 have less than 50 per cent of their populations covered.

Figure 5.1: Combined operator 2G coverage

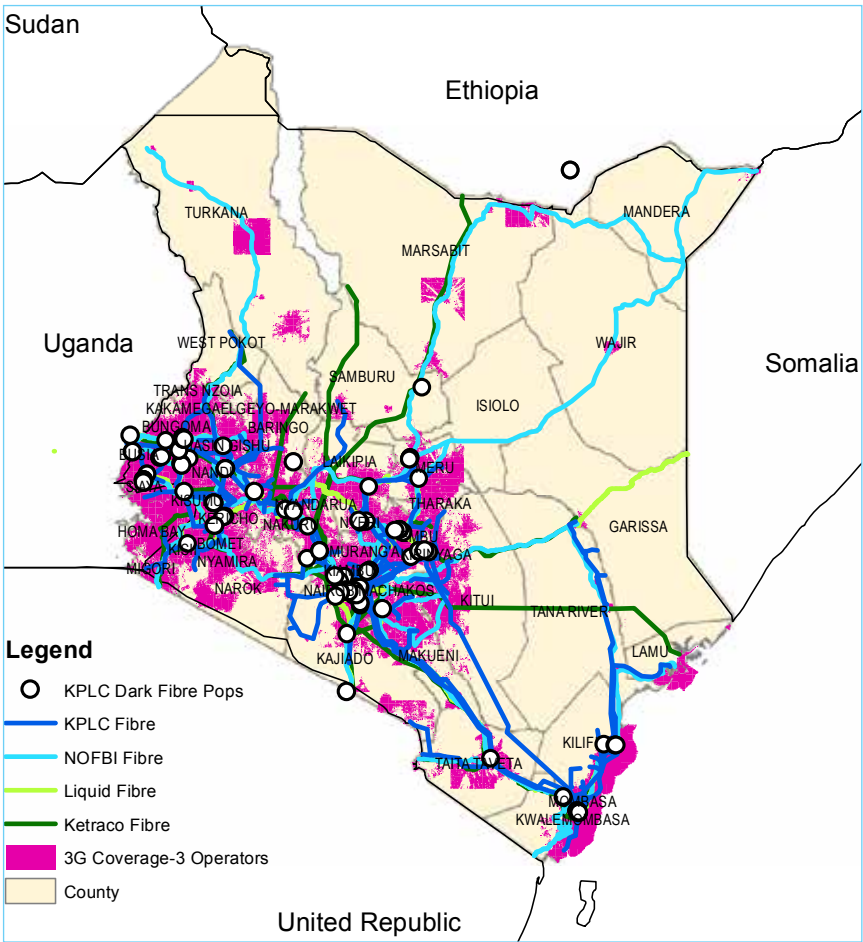


As illustrated in Figure 5.1, nearly all of the major un-served areas are in the Northern and Eastern regions of the country, as well as in the Southwest border counties of Taita Taveta, Kwale, Kajiado and Narok.

5.4.2 3G Broadband coverage

Figure 5.2 illustrates the broadband coverage including the National Optical Fibre Infrastructure (NOFBI) and private fibre routes as well as Kenya Electricity Transmission Company (KETRACO) and Kenya Power line routes which either have or could be equipped with optical fibre.

Figure 5.2 3G Coverage



Whilst 3G-service geographical coverage is only 17 per cent of land area, 78 per cent of the population is covered; thus the access gap for 3G broadband services is 22 per cent of the population. The regional disparity for 3G is more pronounced than for 2G, even though the population coverage has improved significantly in recent years and will continue to expand through market forces, especially as 3G devices become more affordable and popular. Analysis by sub-location indicates that 1,244 sub-locations countrywide have zero 3G coverage and a further 977 have less than 50 per cent coverage.

5.5 Geographic Information Systems Interactive Portal

The Authority developed a Geographic Information Systems (GIS) portal which is a one-stop online interactive platform created to provide a view of the different layers of ICT coverage in Kenya. The Geo-Portal will be updated on a regular basis and will assist the Authority in the identification of the gaps for each service area by giving GPS coordinates for selected Universal Service clusters (access gaps) and required areas of intervention. The portal will also be used to determine the extent of communication coverage and the access levels by citizens.

The map has been populated with different information layers such as telecommunications (3G and 2G coverage from the 3 operators), postal network, broadcasting, Fibre routes, transportation, administrative boundaries, education and health facilities, and electricity networks.

5.6 USF levies

During the FY 2015/16, the Authority collected KES 1.19 billion USF levies from the licencees. As at the close of the year the fund had accumulated a total of KES 4.32 billion.



Left to Right: Universal Service Advisory Council (USAC) Chairperson Dr. Catherine Ngahu, Communications Authority of Kenya (CA) Director General Mr.Francis Wangusi,(second left) CA Chairman Mr. Ngene Gituku,(centre) Kenya National Bureau of Standards (KNBS) Director General Mr. Zachary Mwangi,(third right) Principal Secretary,State Department for Broadcasting and Telecommunications Mr.Sammy Itemere,(second right) and ICT Cabinet Secretary Mr. Joe Mucheru, (right) during the launch of the ICT Access Gap Report in 2016.

CHAPTER 6

CAPACITY BUILDING, IMPROVEMENT OF SYSTEMS AND WORKING ENVIRONMENT

6 CAPACITY BUILDING, IMPROVEMENT OF SYSTEMS AND WORKING ENVIRONMENT

The dynamism in the ICT sector requires a highly competent and efficient workforce. To keep up with this, the Authority constantly endeavors to enhance its human resource capacity as well as creating a conducive work environment and a high performance culture for enhanced service delivery.

6.1 Human capital

In an effort to fulfill its expanded mandate in the ICT sector, the Authority increased its workforce by employing 48 new staff members, while nine staff members separated from the Authority. By the end of the year, the Authority's staff population stood at 240, with 133 males and 107 females, a male-to-female ratio of 56:44.

6.2 Capacity building

The Authority has envisioned the dynamism in the ICT sector and its demand to its human capital; hence need to ensure that the employees are afloat in both innovation and technological issues. The Authority therefore continued to invest in its employees to harness the requisite knowledge and skills in the industry. The Authority also ensures forward and backward integration of skills by providing capacity building opportunities for both industry and academia.

6.3 Organisation learning

In cognizance of the need to maintain its highly skilled staff, the Authority focused on developing a learning organization and developing its employees. 230 employees, a 94 per cent of the workforce, were trained during the year based on institutional needs; while 19 employees were sponsored for master's programmes in various disciplines. The Institutional needs that were addressed included training on the new Public Procurement and Asset Disposal Act 2015, Quality Management System, Inspirational Management, Budget & Budgetary Control and Documentation.

6.3.1 Promoting Capacity Building in the Industry

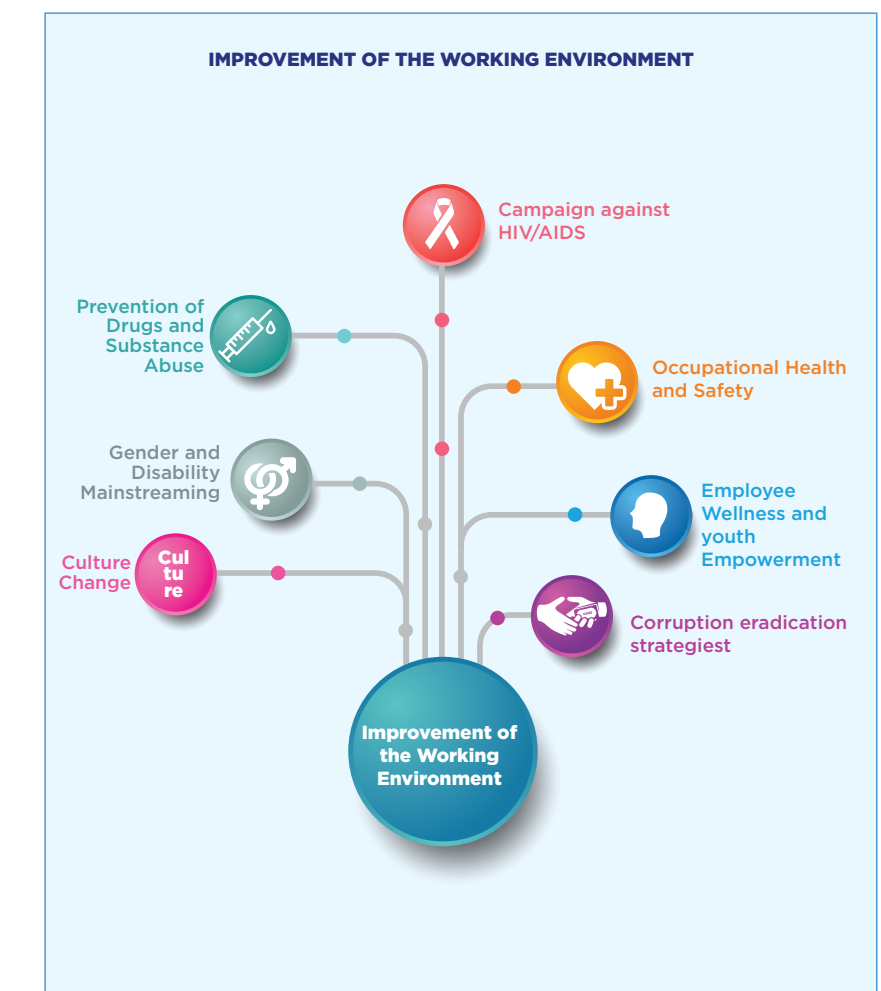
As an initiative in bridging the digital divide, the Authority in collaboration with the ITU, conducted a capacity building workshop on Satellite Communications and ITU Regulations. The Authority also conducted training for the Central Joint Council (CJC) Members and the Communication Workers Union of Kenya, as a continued effort to building and sustaining healthy labour relations.

6.3.2 Knowledge Transfer between Industry and Academia

In line with guidelines on internship and transfer of skills, the Authority offered opportunities to 79 students from tertiary and higher institutions of learning. This comprised of 50 male and 29 female translating to 63 per cent and 37 per cent, respectively.

6.4 Improvement of the Working Environment

The Authority takes cognizance of the fact that, for it to achieve its mandate, it requires a healthy workforce working in a habitable environment, to enhance efficiency and high productivity. It has also continued to promote integrity in its service delivery by embracing a corruption free working environment and promoting national cohesion and integration through its employees.



6.4.1 Occupational Health and Safety

The Authority provided and maintained a safe and healthy workplace for its employees in line with the requirement of Occupational Safety and Health Act (OSHA) No.15 of 2007 and the Factories and other places of work (Fire Risk Reduction and Health and Safety) Rules.

In an effort to ensure preparedness during emergencies, the Health, Safety and Environment (HSE) Committee members were trained on Occupational First Aid. This was followed by staff sensitization on Disaster Preparedness and Mitigation against Technological Hazards, Terrorism and Fire. In addition, fire drills were carried out at the CA Complex.

The Authority carried out the annual HSE audit in all its facilities and continued to implement Climate Change adaptation initiatives such as use of energy saving bulbs and automated water taps. Maintenance/ servicing of the office equipment and machinery was also carried out to reduce dangers that staff could be exposed to.

The Authority also, through the National Environmental Management Agency (NEMA) facilitated sensitization training of all staff on environmental sustainability. An Environment Sustainability Committee was operationalized and the members planted 350 tree seedlings at Kitale RSMS Station as part of environmental conservation.

6.4.2 Employee Wellness and youth Empowerment

In order to retain a healthy workforce, the Authority introduced activities to support its employees in adopting and maintaining healthy living. These activities included physical fitness programmes (gym and aerobics) as well as sessions on nutrition to assist employees adopt healthy living for mental wellbeing and enhanced productivity.

The Authority participated in community-based activities. These included walks such as Mater Heart Run and Charity golf tournaments. In youth empowerment, the Authority sponsored talented youth to participate in Kenya Communications Sports Organization (KECOSO) games.

6.4.3 Corruption eradication strategies

The Authority, through the Corruption Prevention Committee, continued to implement corruption eradication strategies. During the year under review, the Code of Conduct was aligned with the leadership & integrity act 2012, a Gift and Conflict Register was established and two members of the integrity assurance committee were trained by Ethics and Anti-Corruption Commission (EACC). Staff recruited within the year were trained on the code of conduct, ethics and integrity.

A corruption perception survey was carried out and the results indicated that corruption perception index (CPI) was 0.91 which was an improvement from 1.12 recorded in FY 2014/15.

6.4.4 Prevention of Drugs and Substance Abuse

The Authority is aware of the challenges emanating from alcohol and drug abuse and the impact it has at the workplace. In an effort to address these challenges, the Authority formed a committee on Alcohol & Drug Abuse, to spearhead issues related to alcohol and drug abuse among the employees and implemented an Employee Assistance Programmes (EAP) to cater for employees who could be affected.

6.4.5 Gender and Disability Mainstreaming

The Authority complied with the constitutional requirement on gender and disability mainstreaming. As at the end of the financial year, the percentage male- to- female ratio stood at 56:44 compared to 52:48 at the end FY 2014/15. Further, the Authority engaged 23 PwDs (one on permanent basis and 22 on temporary basis).

The Authority through the National Council for Persons with Disabilities (NCPWD), carried out an accessibility audit to evaluate whether its work environment supports the needs of persons with disabilities. The disability friendliness index stood at 83.6 per cent. The Authority's Disability Mainstreaming Policy was also reviewed to institutionalize disability inclusion. In addition, eight staff members were trained in Sign Language by the Kenya Institute for Special Education (KISE) to lessen communication barrier between Authority's staff and its clients who are Hard- of- Hearing.

6.4.6 Campaign against HIV/AIDS

The Authority in collaboration with the National Aids Control Council (NACC) facilitated an outreach programme for staff, their dependents and the neighbouring community. The awareness was on Behaviour Change Initiatives to address blood safety and post exposure which also included Voluntary Counselling and Testing (VCT).

6.4.7 Culture Change

The Authority, with the intent to increase customer satisfaction levels, focused its efforts on enhancing service delivery to its customers. For optimal results, the Authority carried out a baseline survey, to determine the level of compliance against the expected behaviour attributes.

The overall culture index was found to be 0.71 against a full achievement score of 1.0.

The culture change programme was re-launched with the theme 'Change is me' and additional 20 change champions trained. The champions steer the change programme by mobilizing and rallying staff to culture change. To foster team spirit, the Authority organized a team-building event for all staff and also facilitated Board and Management retreat.

6.5 National Cohesion and National Values

The Authority endeavoured to promote patriotism and national unity as articulated in Chapter 10 of the Constitution of Kenya 2010, by enhancing capacity of the regional offices that work in collaboration with the County Governments. The Western and Coast regional offices participated in various County forums with the objective of creating awareness on the Authority's mandate in those counties.

The Authority established a monthly national patriotic day to promote patriotism and national unity. In one of the monthly celebrations, the National Cohesion & Integration Commission sensitised staff on national values as espoused in Article 10(2) of the Constitution. These included patriotism, national unity, sharing and devolution of power, rule of law, democracy and participation of the people, human dignity, equity, social justice and inclusiveness among others. In recognition of these celebrations, the Authority was awarded the best position in National Cohesion and Integration Development judging category during the ASK Kisumu Regional Show.

An award system was established in the FY 2015/16 to recognize staff who were outstanding in upholding ethical values, national values, embracing change, service delivery and best costume representing diversity and national colours.

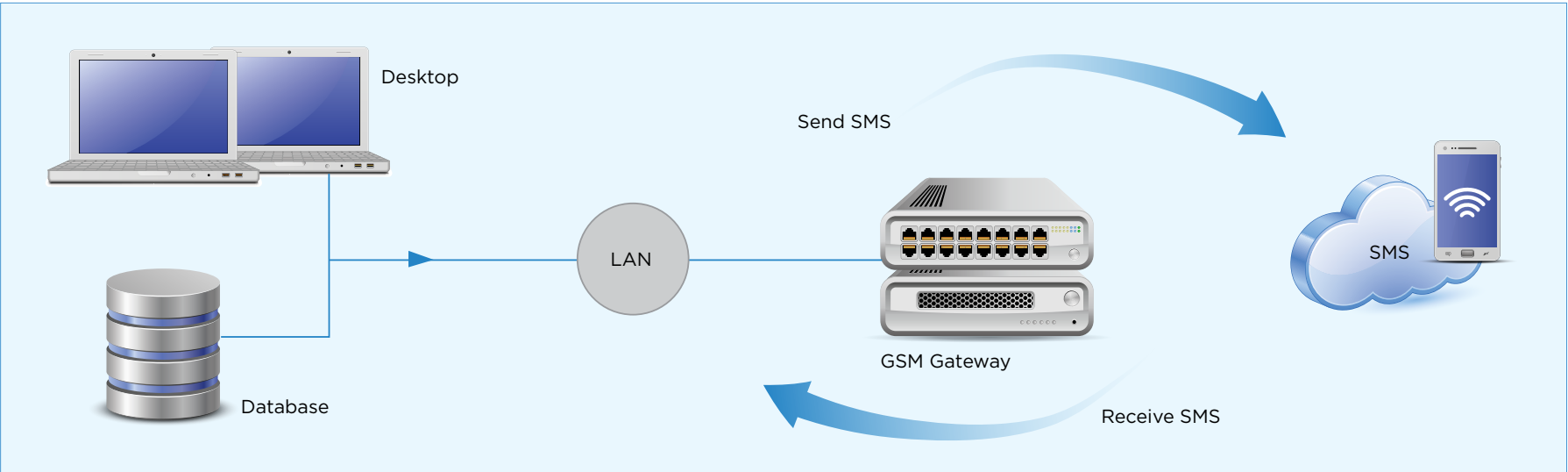
6.6 Automation of the Authority's processes

6.6.1 Implementation of a Short Messaging System (SMS) for the Authority

The Authority implemented a Short Messaging Service (SMS) System within the year. The system is used for sending bulk messages to licencees, debtors, suppliers and staff.

The figure 6.1 below shows the layout of the connectivity for the system.

Figure 6.1: Layout of the Connectivity for the SMS System



6.6.2 Deployment of Business Process Re-engineering & Automation (BPRA)

In order to enhance efficiency, the Authority committed to re-engineer its business processes with a view to improving service delivery. This shall involve review of existing processes and automation with a view of enhancing efficiency and improving performance. During the FY 2015/16, the Authority engaged a consultant to facilitate the process of Business Re-engineering.

6.7 Procurement and Disposal

The procurement process is guided by Article 227 of the Constitution of Kenya 2010, the Public Procurement and Disposal Act, 2015, the Regulations thereunder and the Authority's Procurement Policy manual.

The total procurement budget was KES 1.8 billion. The sum of goods and services procured in the year was KES 1.276 billion. In compliance with the Public Procurement and Asset Disposal Act requirement on the reservation of 30% of all public procurement opportunities to Youths, Women and Persons with Disabilities, the Authority awarded KES 353 million to the designated categories of preference groups. The provision has helped in addressing the challenges faced by the Youths, Women and Persons with Disabilities such as unemployment and competition from the already established large companies participating in Government procurements.

Table 6.1 shows the Top 10 contracts by value awarded in FY 2015/16

| Table 6.1: Top 10 contracts by value awarded in FY 2015/16 | | | |
|--|--|--|--------------------|
| No | Item description | Firm awarded the Tender | Tender mount |
| 1. | Tender to undertake ICT Access gaps study in Kenya | Intelecon Research Consultancy | USD 416,529* |
| 2. | Tender for supply, delivery and installation of computers for E-resource centres | Modern Integrated Business Solutions | Kes. 58,577,471.68 |
| 3. | Tender for provision of consultancy services to undertake an assessment of competition in the telecommunication sector | Analysys Mason | USD 375,382* |
| 4. | Tender for provision of consultancy services to undertake a survey and develop a framework for network redundancy, resilience and diversity of telecommunication networks in Kenya | Interconnect | USD 402,794* |
| 5. | Tender for provision of consultancy services for business reengineering and automation | Ernst & young | Kes.32, 846,091.36 |
| 6. | Tender for supply, delivery and installation and commissioning of RFID file management | Wilcom system | Kes. 18,023,500 |
| 7. | Tender for supply, delivery, installation, testing, commissioning and maintenance of a numbering management system | Giza Systems | USD 543,590* |
| 8. | Tender for supply, delivery, installation, testing, commissioning and maintenance of a Device Management System | Broadband Communication Networks Limited | USD 2,081,359.39* |
| 9 | Tender for creative, media buy and publicity related services for the post digital migration campaign | Transcend Media | Kes. 10,214,552.60 |
| 10 | Tender for supply and delivery of a staff welfare bus | Crown Motors Group Limited | Kes. 10,822,548.20 |

*Tenders awarded to International firms

The Authority encountered two (2) legal challenges to procurement decisions and the Public Procurement Review Board deliberated on the issues as detailed in Table 6.2.

| Table 6.2:Legal challenges to procurement decisions | | | |
|---|--|--|---|
| Case Reference | Tender Number | Case Summary | Case Ruling |
| Ruling in respect of PPARB application no. 59 of 2015 – direct communications systems limited -VS- the Authority. | CA/PROC/OT/06/2015-2016 for supply, delivery and installation of local area network, solar energy solutions and associated maintenance at e-resource centers | M/s Direct Communications Systems Limited made the application premised on the ground that they had been wrongfully disqualified at the technical capacity evaluation stage due to a clerical or arithmetic mistake or error in the addition of marks awarded to them. | The application was dismissed on 4th December 2015. |
| Ruling in respect of PPARB Application NO. 53 OF 2015 Circuit Business Systems Ltd-VS – The Authority | CA/PROC/OT/06/2015-2016 for supply delivery and installation of local area network solar energy solutions and associate maintenance at E- Resource Centers | Circuit Business Systems Limited challenged the award for lots 1, 2 and 3 LAN and Solar Solutions on the ground that the Authority failed to set out in clear and explicit terms its requirement for recommendation letters to demonstrate experience in both LAN and Solar Solutions. | Ruling in the application was delivered on 19th November 2015 annulling the awards of tenders in respect of lots 1, 2 and 3, and ordering the re-evaluation of the tender in respect of the above-named lots. |

In the process of implementing the programme, the Authority faced challenges from the prospective and winning bidders under this preference group. Most of the participants lacked adequate funds and access to credit facilities; adequate knowledge of the market prices and professional skills and resulted in delays/ non- delivery, and sometimes provision of poor quality goods, works and services. This led to delay in the implementation of planned activities as Authority adopted mitigating measures such providing letters of credit to banks and accepting partial delivery to facilitate cash flow streams of the supplier.

6.8 ISO Certifications

6.8.1 ISO 9001:2008

The Authority was first ISO 9001:2008 certified in 2006. Over the years, the Authority has maintained the system through regular Internal and Surveillance Audits. During the year under review, the Authority was re-certified for another cycle running from 9th May 2016 to 15th September 2018.


6.8.2 ISO 27001:2013

The Authority is committed to ensure the confidentiality, integrity and availability of its information assets. Towards this end, it embarked on implementation of the ISO 27001:2013 and was certified in November 2015. This is an ISO standard that prescribes modalities that ensure the security of information assets. In addition the Authority trained 24 internal auditors and implementers.

6.9 Risk Management

The Authority monitored its risks and implemented appropriate mitigation measures to ensure achievement of its objectives. Having established the Enterprise Risk Management (ERM) Framework, the Authority carried out a post-implementation review to ascertain the effectiveness of the framework. This review highlighted a number of areas for improvement key among them the need to create more awareness on risk management in the Authority.

Risk Registers were also revised and aligned with the strategic objectives of the Authority. In order to ensure effective monitoring of the risks, Key risk indicators and attestation questions were developed, uploaded in the system and are being monitored.



CHAPTER 7

CORPORATE COMMUNICATION AND INTERNATIONAL LIAISON

7 CORPORATE COMMUNICATION AND INTERNATIONAL LIAISON

As the ICT regulator, the Authority represents Kenya in local, regional and international ICT activities. Additionally, the Authority engages stakeholders, carries out public awareness campaigns and undertakes Corporate Social Responsibility (CSR) initiatives.

7.1 Engaging with Stakeholders and Local Community

The Authority, in performance of the mandate bestowed on it by KICA engaged stakeholders through public consultations in development and review of the regulatory framework. Additionally, it engaged stakeholders in the ICT sector and other sectors as well as local community on corporate social responsibility activities.

7.1.1 Corporate Social Responsibility

The Authority has a social responsibility to support the community. To this effect, the Authority carried out a number of Corporate Social Responsibility (CSR) activities which included: the Connected Kenya Summit, Media Council of Kenya's Annual Journalism Excellence Awards (AJEA) and the World Conference on Public Relations in Emerging Economies.

The Authority also renewed its sponsorship of Talanta Football Club for another three years to the tune of KES. 69 million. The three-year sponsorship has provided a team of 24 young men aged between 17 to 24 years with an opportunity to not only to nurture their talents but also make a living off their skills. The team has currently grown its football skills that has seen it participate in the National Football Super League.

In an effort to improve the lives of the less fortunate in society, the Authority visited various charity homes and supported through provision of various basic needs. The homes visited included: Tumshangilie Mtoto in Nairobi, Thogoto home for the Aged in Kiambu, Haven Recovery Centre in Eldoret and Tumaini Children's Home in Mombasa.

The Authority also supported other social initiatives through sponsorship of among others: Mater Heart Run, Braeburn Charity Golf Tournament, Sports Personality of the Year Awards (SOYA), Eastern Africa Film and Television International Kalasha Awards, Kianda School.

7.1.2 Public and Stakeholder Consultations

The ever-evolving nature of the ICT landscape in Kenya has created a need for continuous engagement with various stakeholders in order to come up with the necessary regulatory instruments that create an enabling environment for the growth of the sector.

In order to align sector regulations to the KICA as amended in 2013, the Authority reviewed and developed six sets of regulations. This review

involved consultation with stakeholders in the sector including service providers, consumer bodies, academia and the public. The Authority created awareness on the process through public notices in the local newspapers, social media, website updates and direct contact with licencees.

To provide a platform for discussions on industry trends and issues affecting licencees, the Authority held the annual ICT Week. This was a five-day event that engaged telecommunication service providers, vendors, contractors and technical personnel; postal and courier; consumer organisations and broadcasters.

The Authority in consultation with stakeholders developed a programming code that sets standards for the time and manner of programmes to be broadcast by licencees. In its efforts to enforce the programming code, the Authority carried out sensitization workshops to broadcasters in Nairobi, Eldoret and Mombasa.

The Authority engaged stakeholders through public notices on its website and in the media. The engagements focused on various regulatory initiatives which included: unauthorized sale and use of GSM boosters and mobile phone jammers, revocation of licences, modification of existing postal courier licences and sale of counterfeit mobile devices.

7.1.3 Exhibitions and Promotional Activities

The Authority participated at the ITU Telecom World 2015 exhibition in Budapest, Hungary which provided a platform for Kenya and its innovators to showcase their technologies, skills and ICT projects. The Authority sponsored four ICT start-ups to showcase their innovations at the said exhibition. Two of the start-ups; M-Shamba and Toto Health won awards at the Young Innovators Competition at the exhibition.

7.1.4 Public awareness campaigns

As part of regulating the ICT industry, the Authority carried out public awareness campaigns through various channels with the aim of sharing information with its key stakeholders and the public. Such campaigns included: the post-digital migration phase two awareness campaign continued as the country migrated to the digital broadcasting platform. The campaign focused on enlightening the public on the differences between Free-to-Air and Pay TV set-top-boxes. This was done through: road shows in Voi, Kibwezi, Kitui Kajiado and Namanga towns, continuous social media engagement and advertisements on the media.

7.2 International Relations and Liaison

The Authority is the country's representative in regional and international ICT matters. In this regard, it maintained the country's membership and actively participated in activities organised by affiliated ICT organisations, to ensure that it keeps abreast with the current trends in ICT. It fulfilled the financial obligations towards the country's subscriptions to regional and international ICT organizations including: International Telecommunication Union (ITU), Universal Postal Union (UPU), Commonwealth Telecommunications Organization (CTO), East

African Communications Organisation (EACO), Pan African Postal Union (PAPU), African Telecommunications Union (ATU), Association of Regulators of Information and Communication for in Eastern and Sothern Africa (ARICEA) and the African Advanced Level Telecommunications Institute (AFRALTI).

7.2.1 Regional and International Meetings and Conferences

During the year, the Authority launched a campaign for the re-election of Amb. Bishar Hussein, as Director General of the Universal Postal Union (UPU) for a second four-year term. The campaign was a joint effort between the Authority, MoICT, Ministry of Foreign Affairs and International Trade and PCK. The elections are set to be held during the 26th UPU Congress in Istanbul Turkey, in October 2016.

In preparation for the World Radiocommunications Conference 2015(WRC-15), Kenya hosted and chaired the third and final African preparatory meeting. The meeting consolidated the African common proposal ahead of the WRC-15 enabling African countries to present a common front in the negotiations for radio spectrum allocation for African countries.

The Authority in liaison with other Government agencies coordinated the development and presentation of national positions to various meetings and other fora organized by affiliated regional and international ICT organizations.

The Authority hosted international meetings in collaboration with the affiliated bodies including: the CTO Forum and Council Meeting 2015; ITU and EACO validation workshop on conformance and interoperability; ITU and EACO Stakeholders' workshop on Quality of Service (QoS) and Quality of Experience (QoE); and 26th Executive Committee meeting of the Association of Regulators of Information and Communications for Eastern and Southern Africa (ARICEA). The Authority in collaboration with the Internet Corporation for Assigned Names and Numbers (ICANN) facilitated the launch of the first ICANN African engagement office in Nairobi.

7.2.2 Benchmarking

Information sharing is vital in the ICT industry to ensure skills are transferred and capacity is built. To this end, the Authority hosted several delegations on benchmarking missions. These delegations included: Malawi Communications Regulatory Authority (MACRA), Cameroon Telecommunications Board, Zambia Information and Communication Technology Authority (ZICTA), and Tanzania Communications Regulatory Authority (TCRA).

These benchmarks focused on: investment and taxation on mobile telecoms sub-sector; legal, regulatory and economic aspects; broadcast licensing; human resource management; and specific conditions and rules for calculating radio frequency spectrum fees and spectrum pricing mechanisms.



Delegates during the WRC preparatory meeting for the African region in Nairobi.



A participant makes a comment during the 2016 ICT Week in Nairobi. The event provides a platform for the Authority to engage with its licencees.

COMMONWEALTH TELECOMMUNICATIONS ORGANIZATION FORUM 2015



Delegates and dignitaries interact to during the CTO Forum 2015 in Nairobi.



CHAPTER 8

FINANCIAL INFORMATION

8 FINANCIAL INFORMATION

Abridged Version of Financial Information

8.1 Corporate Governance

The Board of Directors regards corporate governance as critical to the success of the Authority. The Board is responsible for ensuring that proper and sound corporate governance is maintained as set out in the Kenya Information and Communications Act, 1998 (Cap 411A). The Act vests the Board with the twin functions of decision making and oversight.

The Board acknowledges the importance of good corporate governance in building a competitive and vibrant ICT industry and enhancing stakeholder confidence in the regulatory environment. To this end, the Board provides leadership and strategic direction for the Authority in fulfillment of its statutory mandate.

The Business of the Board is conducted in accordance with best regulatory practices anchored in principles of accountability and transparency as well as compliance with relevant laws and regulations. In this context, the Authority discharges its mandate based on strong corporate governance principles through application of high and consistent ethical standards.

Auditors

The Auditors, Messrs, Auditor-General is responsible of the statutory audit of the Authority in accordance with Section 20 of the Kenya Information and Communications Act, 1998

By Order of the Board



Francis Wangusi, MBS

Director General

8.2 Statement of Directors' Responsibilities

Section 20(2) of the Kenya Information and Communications Act of 1998 (CAP 411A), Public Financial Management act of 2012 and the State Corporations Act (CAP 429), require the Directors to prepare financial statements in respect of that Authority, which give a true and fair view of the state of affairs of the Authority at the end of the Financial year/period and the operating results of the Authority for that year/period. The Directors are also required to ensure that the Authority keeps proper accounting records which disclose with reasonable accuracy the financial position of the Authority. The Directors are also responsible for safeguarding the assets of the Authority.

The Directors are responsible for the preparation and presentation of the Authority's financial statements, which give a true and fair view of the state of affairs of the Authority for and as at the end of the financial year (period) ended on 30 June 2015. This responsibility includes: (i) maintaining adequate financial management arrangements and ensuring that these continue to be effective throughout the reporting period; (ii) maintaining proper accounting records, which disclose with reasonable accuracy at any time the financial position of the Authority; (iii) designing, implementing and maintaining internal controls relevant to the preparation and fair representation of the financial statements, and ensuring that they are free from material misstatements, whether due to error or fraud; (iv) safeguarding the assets of the Authority; (v) selecting and applying appropriate accounting policies; and (vi) making accounting estimates that are reasonable in the circumstances.

The Directors accept responsibility for the Authority's financial statements, which have been prepared using appropriate accounting policies supported by reasonable and prudent judgments and estimates, in conformity with International Public Sector Accounting Standards (IPSAS), and in the manner required by the KICA Act and the State Corporations Act. The Directors are of the opinion that the Authority's financial statements give a true and fair view of the state of Authority's transactions during the financial year ended 30 June 2015, and of the Authority's financial position as at that date. The Directors further confirm the completeness of the accounting records maintained for the Authority, which have been relied upon in the preparation of the Authority's financial statements as well as the adequacy of the systems of internal financial control.

Nothing has come to the attention of the Directors to indicate that the Authority will not remain a going concern for the next twelve months from the date of this statement.

Approval of the Financial Statements

The Authority's financial statements were approved by the Board on 28th September 2015 and signed on its behalf by



Francis W. Wangusi, MBS

Director General



Ngene B. Gituku

Chairman of the Board

8.3 Revenue

| Statement of Financial Performance For the Year Ended 30 June 2015 | | | |
|--|-------|------------------|------------------|
| | | 2015 | 2014 Restated |
| Revenue from non-exchange transactions | Note | KES'000 | KES'000 |
| Licence Fees | 3 | 7,764,828 | 6,318,816 |
| Revenue from exchange transactions | | | |
| Finance income | 4 | 963,030 | 933,882 |
| Other Income | 5 | 5,643 | 9,517 |
| | | 968,673 | 943,399 |
| Total revenue | | 8,733,501 | 7,262,215 |
| Expenses | | | |
| Employee costs | 6 | 978,997 | 777,682 |
| Directors Expenses | 7 | 74,879 | 28,584 |
| Depreciation and Amortization Expense | 26 | 133,252 | 107,207 |
| Repairs and maintenance | 8 | 70,290 | 89,976 |
| General expenses | 9 | 1,523,068 | 1,230,978 |
| Total Expenses | | 2,780,486 | 2,234,427 |
| Other gains/(losses) | | | |
| Gain on sale of assets | 10 | 320 | 613 |
| Gain on foreign exchange transactions | | (350) | 1,986 |
| Surplus before tax | | 5,952,984 | 5,030,387 |
| Corporation tax 30% | 11 | 1,785,895 | 1,509,116 |
| Dividend/Remittance Surplus | 23(b) | 3,135,114 | - |
| Surplus for the period | | 1,031,975 | 3,521,271 |

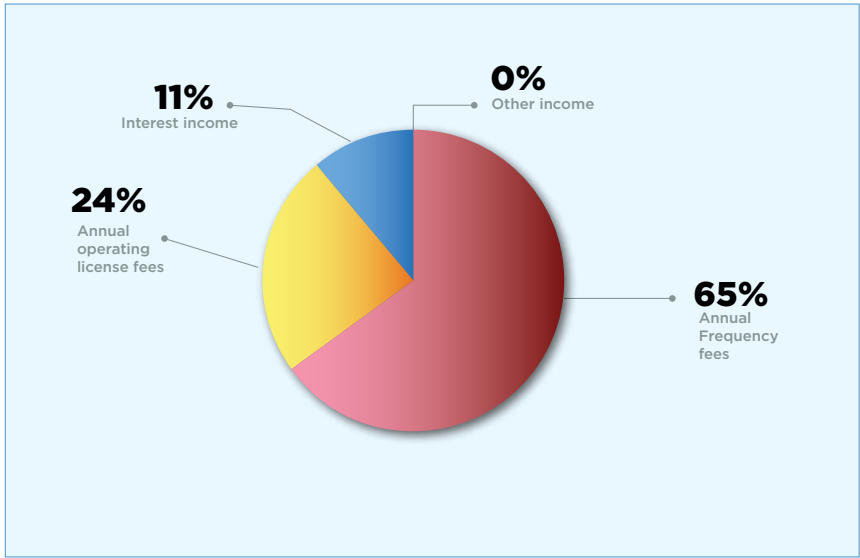


Figure 8.1: Sources of Income

The Authority earned a total of KES. 8.73 billion in the FY 2014/2015 against a budget of KES.8.22 billion, resulting to a favorable variance of KES. 514million. The performance represents an increase of 20 per cent compared to the previous year where income generated was KES. 7.26 billion. The increase was mainly attributed to an increase in annual operating licence fees that grew to KES. 2.08 billion from KES. 759.75 million in the FY 2013/14.

The major income stream remained the frequency spectrum fees, which accounted for 65.0 per cent of the total earned income.

| Statement of Financial Position As at 30 June 2015 | | | |
|---|-------|-------------------|-------------------|
| | | 2015 | 2014 |
| | Note | KES'000 | KES'000 |
| ASSETS | | | |
| Current Assets | | | |
| Cash and cash equivalents | 12 | 9,176,664 | 10,376,490 |
| Receivables from non-exchange transactions | 13 | 1,794,740 | 894,079 |
| Receivables from exchange transactions | 14 | 463,370 | 423,382 |
| Deferred Tax Asset | 11 | - | 315,054 |
| Total Current Assets | | 11,434,774 | 12,009,005 |
| Non-Current Assets | | | |
| Property, plant and equipment | 17 | 2,475,574 | 1,612,460 |
| Total Non-Current Assets | | 2,475,574 | 1,612,460 |
| TOTAL ASSETS | | 13,910,347 | 13,621,465 |
| LIABILITIES | | | |
| Current Liabilities | | | |
| Provisional Dividend/Remittance Surplus | 23(b) | 3,135,114 | - |
| Trade and other Payables from exchange transactions | 15 | 402,117 | 2,714,532 |
| Payments received in advance | 16 | 3,832 | 674,543 |
| Deferred Tax liability | 11 | 94,919 | - |
| Total Current Liabilities | | 3,645,982 | 3,389,075 |
| TOTAL LIABILITIES | | 3,645,982 | 3,389,075 |
| Net Assets | | 10,264,365 | 10,232,390 |
| Owners' Equity | 18 | 41,965 | 741,965 |
| Revaluation reserve | 23(a) | - | 380,681 |
| Accumulated Surplus | 23(b) | 9,522,400 | 9,109,744 |
| Total Net assets and Liabilities | | 10,264,365 | 10,232,390 |

The Financial Statements set out on pages 1 to 18 were signed on behalf of the Board of Directors by:

Francis W. Wangusi, MBS
Director General

Date: 28th September 2015

Ngene B. Gituku
Chairman of the Board

Date: 28th September 2015

8.4 Expenditure

Operating Expenditure

In the FY 2014/2015, KES.2.78 billion was spent on the Authority's operations compared to KES.2.23 billion in the FY 2013/14. This resulted in an increase of KES.546 million, which can be attributed to among others operationalization of the regional offices, digital migration and consumer awareness campaigns.

Capital Expenditure

The total capital expenditure for the FY 2014/15 was KES.786 million compared to KES.144.5 million spent in the previous year. The increase was mainly attributed to the procurement of Spectrum Management and Monitoring System (SMMS).

Surplus

The resultant surplus before 30% corporation tax remittance to Kenya Revenue Authority was KES.5.9 billion compared to KES.5.03billion surplus for FY 2013/14. This reflected an increase of KES.896 million.

Tax Remittance

During the financial year, the Authority paid KES.1.375 billion corporation tax in accordance with Public Financial Management Act 2012.

8.5 Audit of Financial Statements

The Authority's financial statements for the FY 2014/15 were audited by the Kenya National Audit Office which later issued unqualified audit opinion on the financial statements.

Assets

The total assets of the Authority amounted to KES. 13.91 billion, compared to KES. 13.62 billion in the previous year. This represented an increase of KES.29 million. The assets of the Authority comprised of property, plant and equipment valued at KES. 2.47 billion, cash and cash equivalents of KES. 9.17 billion and receivables of KES 2.25 billion.

Current Liabilities

The current liabilities stood at KES. 3.64 billion, which comprised KES.3.13 billion surplus remittance to the National Treasury.

Capital and Reserves

| | Owners' Equity | Revaluation Reserve | Accumulated Surplus | Total Reserves |
|---|----------------|---------------------|---------------------|----------------|
| | KES'000 | KES'000 | KES'000 | KES'000 |
| At July 1, 2014 | 741,965 | 380,681 | 9,109,744 | 10,232,390 |
| Transfer of revaluation reserve | | (380,681) | 380,681 | - |
| Contributions to Universal Service Fund | | | (1,000,000) | (1,000,000) |
| Surplus after 30% corporation tax | | - | 4,167,089 | 4,167,089 |
| Dividends 2013/2014 | | | (1,000,000) | (1,000,000) |
| Remittance Surplus | | | (2,135,114) | (2,135,114) |
| At 30th June 2015 | 741,965 | - | 9,522,400 | 10,264,365 |

8.6 Annual Budget Estimates and Revised Budget

In accordance with Section 19 of KICA, and the provisions of the Exchequer and Audit Regulations, the estimates of revenue and expenditure of the Authority for the FY 2016/17 were prepared and submitted to the National Treasury through MoICT.

During the FY 2015/16 the revised budget was prepared and approved by the National Treasury with expected income of KES.7.49 billion, operating expenditure was estimated at KES 3.54 billion and capital expenditure estimated at KES. 699million.

The total expected income for the FY 2016/17 is KES. 7.23 billion. The operating expenditure is estimated at KES. 3.622billion while capital expenditure is estimated at KES. 1.99billion.



Reporting Cybercrime in Kenya

Internet users can report cyber-crime incidents to the National KE-CIRT/CC through any of the following means:

- The Authority's website, <http://www.ca.go.ke> under the "Information Security" Section;
- The Authority's National KE-CIRT/CC website, <http://www.ke-cirt.go.ke> under the "Report an Incident" Section;
- Send an email to: incidents@ke-cirt.go.ke;
- Telephone Hotlines: Hotlines: +254-703-042700, +254-730-0172700

• Via a letter addressed to:

The Director-General
Communications Authority of Kenya (CA)
CA Centre, Waiyaki Way
P.O. Box 14448
NAIROBI 00800

Visit the Authority's National KE-CIRT/CC located at the CA Centre along Waiyaki Way.



**COMMUNICATIONS
AUTHORITY OF KENYA**

Head Office
CA Centre
P.O. Box 14448
Nairobi 00800
Mobile: 0703 042 000
Email: info@ca.go.ke

CA Western Regional Office
1st Floor, KVDA Plaza
P.O. Box 2346
Eldoret 30100
Mobile: 0703 042 105
Email: wro@ca.go.ke

CA Coastal Regional Office
3rd Floor, NSSF Building
P.O. Box 80141
Mombasa 80100
Mobile: 0703 042 152
Email: cro@ca.go.ke



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YouTube: [CA Kenya](https://www.youtube.com/user/CAKenya)



Consumer complaints: chukuahatua@ca.go.ke

CA is ISO 9001:2008 and ISO 27001:2013 certified