NATIONAL INFORMATION COMMUNICATION TECHNOLOGY (ICT) POLICY

DRAFT

BY

**THE MINISTERIAL COMMITTEE
ON ICT POLICY HARMONIZATION**

January 9, 2012

PREAMBLE:

On the 17th of July 2011 the President and Commander in Chief of the Nigerian Armed Forces of the Federal Republic of Nigeria, Dr. Goodluck Ebele Jonathan appointed a Minister for the new Ministry of Communications Technology. The President's action was a culmination of many years of consultations between Government and ICT stakeholders, which resulted in several policy recommendations and reports.

The Hon Minister of Communications Technology, Mrs. Omobola Johnson, on 25th August 2011, set up an Adhoc Committee to harmonize all the various policies for the different sectors in the ICT industry (Telecommunications, Broadcasting, Information Technology and Postal Services). The membership of the Committee was drawn from the various sectors and comprised the following:

Prof. Raymond Akwule	President DBI	Chairman
Engr. Ngozi Ogujiofor	MCT	Member
Alheri Saidu	NBC	Member
Mrs. Yetunde Akinloye	NCC	Member
Dr. Vincent Olatunji	NITDA	Member
Abdul-Karim Baba	NIPOST	Member
Mr. Ayoola Oke	SA (Telecoms)	Member
Dr. Abiodun Jagun	SA (T & P)	Member
Mr. Ola Ogunneye	SA (IT)	Member

The Committee was inaugurated on 25th August 2011 by the Honourable Minister at the Conference room of the Ministry and given a 6-week timeframe within which to conclude its assignment.

The Term of Reference for the Committee was:

- *To harmonise all existing Policies in the Information and Communications Technology Sector into a Single Information and Communications Technology Policy.*

The Committee in carrying out its assignment considered the following documents:

- Final Report of the Committee for the Review of Communication Policy for Nigeria;
- Report of the Presidential Task Force on Restructuring of Government Institutions/Organizations in Telecommunications and ICT Sector in Nigeria;
- Bureau of Public Enterprise ó Draft Report on National Postal Sector Policy (May 2009);
- The First National Implementation Plan for Vision 20:2020 Vol. 1;
- The First National Implementation Plan for Vision 20:2020 Vol. II;
- National Mass Communication Policy;
- Draft Document on Broadcasting Policy;
- Nigerian Communications Act, 2003;
- Report of the Presidential Committee on Masterplan and Roadmap for the Implementation of Information and Communications Technology for National Development (Sept. 2010);
- Nigerian Policy for Information Technology;
- National Outsourcing Policy and Institutional Framework for Nigeria (Jan. 2007);
- National Information Technology Development Agency Act, 2007;
- National Broadcasting Commission Act 1992 as amended;
- Nigerian Postal Service Act 2004;
- Draft Communications Policy (2011);
- National Telecommunications Policy, 2000.

TABLE OF CONTENTS

1   INTRODUCTION

1.1   Background

Over the years, the Federal Government of Nigeria has initiated or adopted several ICT related policies and laws aimed at guiding the development of the sector and harnessing its power for national development. But Nigeria, like other nations, faces the inevitability of the fast technological and market convergence of the global ICT industry and must therefore continue to evolve new ICT policy frameworks to accommodate convergence and maximize the potential of ICT tools for national development.

The reality of ICT convergence has not yet been reflected in Nigeria where the institutions that regulate and/or develop the ICT sector still function as distinct actors in the industry, without much coordination. Though there have been significant gains in the last decade, especially with regard to mobile telephony, the lack of industry convergence in the Nigerian ICT industries has resulted in fragmentation and inefficiency in the management of resources in the sector.

The goal of this National ICT Policy therefore is to provide a framework for streamlining the ICT sector and enhancing its ability to help address some socio-economic and development challenges while facilitating the transformation of Nigeria into a knowledge based economy. In addition the ICT Policy shall be used to develop action plans, sub-sectoral policies and specific implementation guidelines as appropriate.

1.2   Status of ICT in Nigeria

Prior to 1999, development in the ICT sector of Nigeria was far below expectation for a country of its size and resources. For example, total fixed telephone lines were less than 400,000 while regular internet users were less than 200,000. From a policy and regulatory standpoint, the Federal Government of Nigeria adopted the National Telecommunications Policy (NTP) in 2000 to guide the development of the telecommunications industry in

Nigeria. This was followed by the enactment of the Nigerian Communications Act (NCA) 2003 to give legal effect to the NTP. Previously, the National Mass Communications Policy recommended the creation of a regulatory body to regulate Broadcasting and this led to the promulgation of Decree 38 of 1992 that established the National Broadcasting Commission (NBC). In a similar vein, the National Information Technology Policy was approved in 2000 to guide the IT industry in Nigeria, and was followed by the enactment of the National Information Technology Development Agency Act 2007 which became the legal platform for the creation of NITDA. It is noteworthy that there has never been a national postal policy, however, Decree No. 41 of 1992 established the Nigeria Postal Service (NIPOST) to provide postal services in Nigeria.

These policy and regulatory developments along with other government and private sector initiatives have resulted in significant improvement of the ICT sector. For instance, Nigeria has moved from approximately 400,000 available fixed telephone lines pre- 1999 to over 90.5 million available mobile telephone lines by the first quarter of 2011, thereby making Nigeria's telecommunications market the fastest growing in Africa. There is now modest ICT deployment in the functioning of government organizations, as well as in the private sector. In addition, ICT now drives some activities in the financial and oil and gas sectors while various e-Government initiatives are ongoing in various departments at the three tiers of government.

Available statistics[1] indicates the following;

i.	Mobile Penetration (per 100 people)	-	55.76
ii.	Fixed penetration (per 100 people)	-	0.48
iii.	Internet Penetration (per 100 people)	-	23.48 (2010)
iv.	Internet Users (000)	-	43,270 (2010)
v.	Broadband Penetration	-	6.1% (2010)
vi.	PC Penetration (Number of PCs per 100)	-	4.7 (2010)
vii.	Computers Assembled in Nigeria	-	< 500,000
viii.	Number of registered ICT companies	-	350
ix.	Broadcasting stations nationwide	-	308

---

[1] Unless otherwise stated, statistics are for the year 2011 and are from a variety of sources including relevant agencies under the Ministry. These indicators will be updated in the final version of the Policy document.

x. Post offices (total inc. postal agencies and post shops)   -   1,065 (3,000+)

xi. Licensed courier companies   -   250

1.3   The Policy and Regulatory Framework

Currently the Nigerian ICT sector is guided by the following policies and enabling laws:

1. The National Telecommunications Policy (NTP) 2000;
2. National Mass Communication Policy;
3. National Broadcasting Commission (NBC) Act 1992 (as amended)
4. Nigerian Communications Act, 2003;
5. Nigerian Postal Service Act 2004 Cap 127 Laws of the Federation of Nigeria;
6. National Information Technology Policy 2000;
7. NITDA Act 2007; and
8. The Wireless Telegraphy Act, Laws of the Federation 1990

1.4   ICT Nigerian Vision 20:2020

The long term strategic vision for the ICT sector was elaborated in the National Development Plan titled õNigeria Vision 20:2020ö. According to the document:

The increasing globalization driven by ICT makes it imperative for Nigeria as an emerging market to irreversibly consider the application and promotion of ICT strategy to facilitate its rapid growth and development. This will involve the development of a vibrant ICT sector to drive and expand the national production frontiers in agriculture, manufacturing and service sectors. It would also require the application of the new knowledge to drive other soft sectors: governance, entertainments, public services, media sector tourism, et cetera.

The Vision 20:2020 document further acknowledges the following:

In respect of knowledge and digital divide the situation remains worrisome. This is, in terms of knowledge generation, penetration of ICT, access to and usage of internet and telephone penetration (fixed and mobile) and physical infrastructure. The knowledge and digital divide cuts across geographical, gender and cultural

dimensions. It exists among the 36 states of the Federation plus the Federal Capital Territory, the 774 Local Governments, rural and urban areas, men and women, rich and poor, young and old, able bodied and disabled, illiterate and educated.

This National ICT Policy has been developed in support of the development goals of Nigeria's Vision 20:2020.

2 VISION AND MISSION STATEMENTS

2.1 Vision

Nigeria as a knowledge-based, and globally competitive society

2.2 Mission

To fully integrate information and communications technologies into the socio-economic development and transformation of Nigeria into a knowledge based economy

3 POLICY OBJECTIVES

3.1 Policy Statements

The main objective of the National ICT Policy is to create a conducive environment for the rapid expansion of ICT networks and services that are accessible to all at reasonable costs, and for the transformation of Nigeria into a knowledge-based economy.

3.1. Policy Objectives

The objectives of this National ICT Policy are:

i.   To reflect convergence by de-emphasizing the differences between the IT, broadcasting, telecommunication, and postal sectors;

ii. To bring all ICT related activities under a single Ministry so as to give policy guidance to the converged industry;

iii. To enact a new Information and Communication Technology (ICT) Act that ensures a competitive and converged industry as well as provide an appropriate legal framework;

iv. To promote universal access to high quality advanced Information and Communication technologies and services, in particular the Internetand related capabilities ;

v.   To develop and enhance indigenous capacity in ICT technologies and software development;

vi. To ensure the countryøs effective participation in regional and international ICT fora in order to promote ICT development in Nigeria, meet the country's international obligations and derive maximum benefit from international cooperation in these areas;

vii. To establish an administrative and legal framework for the transition to digital broadcasting and ensure a smooth switchover in accordance with ITU guidelines;

viii. To establish the framework for the implementation of community radio in Nigeria;

ix.   To divest NIPOST of its regulatory function and transform it into a commercial provider of postal and integrated data communications services.

x.   To eliminate multiple regulation and taxation in the ICT sector which serves as disincentives to investors;

xi.   To encourage the development of Broadband services that will enable Nigerians enjoy the benefits of globalization and convergence; and

xii.   To create the enabling environment for investment in ICT in Nigeria.

4 CHALLENGES OF ICT IN NATIONAL DEVELOPMENT

4.1 Introduction

The development and deployment of ICTs have brought about phenomenal improvements and great opportunities for developing countries to participate meaningfully in the global digital economy. Therefore, the need for Nigeria to harness existing ICT tools to enhance sustainable socio-economic development cannot be over-emphasized.

It must however be noted that numerous challenges which include lack of a comprehensive and harmonized ICT policy, inadequate infrastructure, legal and regulatory framework, Universal Access/Service, Security and Local content, etc. must be addressed for the country to meaningfully participate in the information age.

4.2 Policy, Legal and Regulatory Framework

Presently in Nigeria, Policies guiding the ICT sector are treated under various legislations. These laws are however not comprehensive enough to deal with convergence and other ICT related issues in the current digital world. There is therefore an urgent need for the country to have a single comprehensive ICT policy to address the following:

    i.   Appropriate policies, legal, regulatory and institutional frameworks, including a converged ICT regulatory agency;

    ii.   Affordable and reliable access to ICT;

    iii.   Investment in ICT.

    iv.   Research and Development (R&D) in ICT;

    v.   Legislations on the following:

- cyber crimes,
- ethical and Moral Conduct,
- privacy,
- copyrights,
- intellectual property rights,
- piracy; and

- e-transactions;

vi. Competition and Public-Private Partnership; and

vii. Institutional framework for ICT policy development, monitoring and review

4.3 ICT Infrastructure

The paucity of ICT infrastructure in the country has greatly hindered the provision of efficient and affordable ICT services to the citizens. Nigerian ICT policy should therefore focus on the development of the following:

i. national ICT backbone and Broadband infrastructure;

ii. infrastructure that will foster digital literacy and Internet usage;

iii. affordable Universal Access to ICT; and

iv. national physical infrastructure (including power)

4.4 Internet and Broadband

Internet and Broadband have been globally acknowledged as the foundation for transformation to the knowledge economy. Broadband has the potential of enabling entire new industries and changing how we educate our children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge. Even though there are some initiatives aimed at deploying broadband in Nigeria, there is need to accelerate ongoing efforts and introduce new initiatives. This is necessary for the actualization of the developmental goals of vision 20:20;20.

4.5 Capacity Building

Despite the proliferation of ICT training institutions in the country, proficiency in ICT is still very low among the populace. Therefore, the importance of strengthening ICT human capital development should be accorded the necessary priority. Attention should be given to developing globally competitive indigenous human capital and Knowledge based Products and Services in targeted areas of ICT (software, hardware, networks, card technologies, security/biometrics, web and digital content development, etc) Accordingly, the following issues must be adequately addressed:

i. development of appropriate ICT curricula for all levels of educational institutions (primary, secondary and tertiary);

ii. promotion of digital literacy and provision of appropriate digital literacy guidelines and standards for the informal sector, non literate population and special groups;

iii. provision of training programs for public servants and employees in the private sector;

iv. establishment of information resource centres and strategies for research, development and innovation; and

v. provision of, and recognition for, non-formal and distance e-learning modes of education.

4.6   Universal Access

Over 70% of Nigerians reside in the rural areas and most do not have access to advanced ICT services. In addition, some Nigerians reside in urban areas that are unserved or underserved. Consequently efforts should be made to ensure universal access and quality service through the nationwide development of ICT infrastructure and services, especially broadband Internet access and related facilities and applications. Some issues to be considered include: development of a national fibre-optic backbone infrastructure that ensures high bandwidth availability, universal access funding and programs, Internet connectivity and telecommunications access network extensions; encouragement of private operators to rollout nationwide high speed broadband and data infrastructure; and use of appropriate and existing government structures (e.g. Post Offices, Schools, Libraries) as platforms for extending ICT to rural communities. All ICT industry participants should contribute toward supporting development of universal access.

4.7   Community Broadcasting

Community broadcasting typically augments the services of the national broadcasting system by attending to needs that cannot be adequately addressed at Federal, State and Local levels by public and commercial broadcast operators. Community broadcasting in Nigeria has been minimal and yet it is acknowledged that community broadcasting can play a useful role in

national development. Efforts should be made to promote a more robust community broadcasting culture in Nigeria, including IP-based retransmission of broadcast signals in Nigeria.

4.8   Public Private Partnerships (PPP)

Private sector participation has been identified as a major catalyst in ICT development across the globe. However, Nigeria is yet to take full advantage of the enormous potentials inherent in public-private-partnership in ICT development. The necessary enabling environment should therefore be created for the realization of this benefit.

4.9   Youth and ICT

In recognition of the peculiar roles of the youth in sustainable national development, appropriate measures should be put in place to empower and engage them through initiatives that facilitate access to affordable ICT Infrastructures..

4.10   Local Content Development

ICT local content (including software and hardware) is grossly underdeveloped in Nigeria. This has resulted in over-dependence on the foreign importation of software and hardware and diminished opportunity for capacity building in ICT content creation. In addition there has been the related drain on the Nigeria's foreign exchange. Consequently to remedy this challenge, efforts must be put in place to ensure that local content which includes production of local software and hardware is properly developed through appropriate local content laws; content development in indigenous languages; and encouragement of the industry to focus on solutions and services that meet the needs of the society.

4.11   Security

Major challenges facing the country in the area of ICT development include cybercrime. Fighting cybercrime requires appropriate legislation and a high degree of coordination between ICT related agencies and security organizations. The lack of appropriate legislation

and coordination of the activities of various security arms of government are issues that should be addressed.

4.12 e-Applications

e-Applications refer to the application of ICT in every sector of human life which includes Governance (eGovernment), Agriculture (eAgriculture), Commerce (eCommerce), Health (eHealth) eLearning (Education), etc. However, lack of requisite infrastructure, appropriate legal framework and affordable/reliable services constitute major challenges in the provision of these electronic services in Nigeria. Government will therefore put in place appropriate measures to create an enabling environment to enhance effective service delivery in all sectors.

4.13 Research and Development

Though there is some research and development (R&D) in the general area of science and technology, R&D in the specific area of ICT is very minimal or non-existent in Nigeria. There is a need to promote R&D activities to stimulate and sustain innovation in ICT solutions. Attention should be paid to the following issues:

    i.   the competencies and capabilities of researchers and research institutes and tertiary institutions to be globally competitive in targeted ICT areas.

    ii.   availability of high tech equipment and Internet connectivity for all institutions;

    iii.   reforms to refocus the institutions in specialized and targeted research and development activities;

    iv.   linkage between ICT based companies and research institutes in targeted areas of ICT solutions; and

    v.   legal and institutional framework for the protection of copyrighted materials and other Intellectual properties.

4.14 Multiple Regulation

Multiple regulations refer to a phenomenon where players in the ICT sector are subjected to various rules and regulations from different agencies of Government (Federal, State or

Local). This tends to discourage investments and deprive the sector of the necessary funding for improvement and expansion, and should be discouraged.

5 INDUSTRY SUBSECTORAL PROFILES

5.1 Telecommunications

There has been a tremendous advancement in the development of the telecommunications (telephony) sector in Nigeria, particularly since the commencement of mobile services using GSM technology in 2001. Nigeria in recent years has been adjudged as the fastest growing mobile market in Africa and one of the fastest in the world.

The telecommunications sector is governed by the Nigerian Communications Act, 2003 (NCA 2003) and The Wireless Telegraphy Act, 1990. The NCA 2003 set up the Nigerian Communications Commission (NCC) as the independent regulatory authority for the telecommunications sector. The objectives of the regulator are to:

  i.   Create an enabling regulatory environment to facilitate the supply of telecommunications services and facilities;
  ii. Facilitate the entry of private entrepreneurs into the telecommunications market;
  iii. Promote fair competition and efficient market conduct among all players in the industry; and
  iv. Establish the Universal Service Fund to promote the widespread, availability and usage of network services and application services throughout Nigeria.

With the liberalization of the industry in the year 2000, several services and licenses have been introduced into the sector. These include;

  i.   Fixed Telephony;
  ii.   Cellular Mobile Telephony;
  iii. Long Distance Transmission;
  iv.   Global Mobile Personal Communications Services;
  v.   International Data Access;
  vi.   High Speed Data Transmission;
  vii. Value Added Services;
  viii. Internet Service;

ix.   Unified Access Service License.

The telecoms network comprises the following:

Five (5) Mobile GSM Licensees and Eight (8) CDMA licensees in the country. A number of other operators also exist in other market segments, including the following; Interconnect Exchange Houses, International Data Access License (IDA) Fixed Wireless, Private Network operators, amongst others. The current telecommunications sector is highly competitive though with a huge market share imbalance between the GSM players and CDMA players etc, with the market share currently at 91% and 9% respectively.

In 2006, the NCC in response to technology convergence introduced the Unified Access Service Licenses (UASLs). The UASL is a technology neutral license that enables holders to offer a variety of services including voice, data, ISP services amongst others.

The growth in subscriber lines and teledensity has been very impressive. From a modest start of about 400,000 fixed and 25,000 mobile telephone lines in 2001, the industry by July 2011 had an active subscriber base of about 90 million with a teledensity of 60. This growth was the result of continued uptake of digital mobile services (with about 98% market share) and the adoption of a Unified Licensing Regime.

The Communications sector has actively contributed to Gross Domestic Product (GDP). The percentage share of GDP from Communications, according to NCC rose from 0.06 in 1999 to 2.39 in 2007, 2.90 in 2008 and 3.66 in 2009. Private investment in the telecoms subsector rose from US$50 million in the year 1999 to over US$18.0 billion at the end of 2009.

Some of the achievements in the telecom sector have been supported by extensive optical fibre projects across the country, as well as, deployment of satellite communications infrastructure. The NCC initiated the establishment of Internet Exchange Points (IXPs), the Wire Nigeria Project (WIN) and the States Accelerated Broadband Initiative (SABI).

The USPF is a mechanism to extend service to unserved and underserved areas of the country. The NCC contributes 40% of Annual Operating Levy (AOL) received to the Fund. Projects executed under the Fund include:

i.   School Access Program;

ii.   Community Communication Centres;

iii. Backbone Transmission Infrastructure

iv.   Rural Broadband Internet Project;

v.   Accelerated Mobile Phone Expansion Project

In spite of this growth a substantial part of the country (approximately 20%) is not covered, therefore do not have access to even basic voice services. Only a minority percentage of the population has access to multimedia broadband services including the Internet.

5.2 Information Technology

The promulgation of the indigenization decree in 1977 led to the increase in the number of indigenous vendors in the computer business, and stimulated more aggressive marketing by the vendors which in turn resulted in a significant increase in the number of computer installations and usage in the country.

Before 1999, development in the IT sector of Nigeria was minimal. For instance, regular internet users were less than 200,000 out of a population of over One Hundred and Twenty Million. The Federal Government therefore embarked on major reforms in the sector which included:

i.   development and launch of National Policy on Information Technology in 2001 and the establishment of NITDA to implement the policy, co-ordinate, and regulate information technology development in the country; and

ii.   establishment of Nigeria Internet Registration Authority (NIRA) in 2006 to increase Nigeria's presence in the cyberspace.

NITDA's enabling Act was passed into law by the National Assembly in April, 2007. According to NITDA Act of 2007, the mandates of the Agency include the following:

i.   create a framework for the planning, research, development, standardization, application, coordination, monitoring, evaluation and regulation of Information Technology practices, activities and systems;

ii.   provide guidelines to facilitate the establishment and maintenance of appropriate infrastructure for information technology and systems;

iii. develop guidelines for electronic governance, networking of public and private sector establishments; and for the standardization and certification of Information Technology Systems in Nigeria;

iv. render advisory services in all information technology matters to the public and private sectors and create incentives to promote the use of information technology in all spheres of life in Nigeria including the setting up of Information Technology parks;

v. introduce appropriate regulatory policies and incentives to encourage private sector investment in the Information Technology industry;

vi. determine critical areas in Information Technology requiring research intervention and facilitate Research and Development in those areas; and

vii. advise the Government on ways of promoting the development of information technology in Nigeria including introducing appropriate information technology legislations, to enhance national security and the vibrancy of the industry;

Various efforts by NITDA and other stakeholders have culminated in significant development in the IT sector. For instance Nigeria has moved from about 200,000 regular internet users in 1999 to about 2,418,679 users in 2005 and to an estimated 10 million Internet users in 2008,tThe country currently has over 44 Million Internet users.

Also, analysts project that the Nigerian PC market, which is still in its infancy, is expected to expand by 21.5% annually on average from 2009 to 2014 with a notable shift towards mobility which would increase laptop and other mobile PC sales.

The hardware market in Nigeria is shared between multinationals and about five local Original Equipment Manufacturers (OEMs). Nigeria is still largely dependent on foreign software. National Office for Technology Acquisition and Promotion (NOTAP), recently disclosed that Nigeria losses US$1 billion annually to software importation. Over 90% of the software used in Nigeria is imported. However efforts are being made to encourage the patronage of õMade in Nigeria Softwareö to save the country from the huge foreign exchange being expended on foreign software annually.

Government initiatives and policies have led to the creation of the requisite enabling environment thereby leading to both local and foreign direct investment in IT development in

Nigeria. Prices of IT equipment and services have fallen considerably. This will make services and equipment available to more Nigerians as well as enable access to online information.

The potential in the Nigerian IT industry is enormous because the market is vast and citizens are eagerly waiting to embrace and deploy new technologies which are now the modern tools of sustainable socio-economic development.

5.3   Postal Services

The Nigerian Postal Sector comprises of NIPOST as the dominant operator and regulator of the industry. It has a network of 1,065 post offices and more than 3000 additional postal agencies distributed nationwide in 547 of the 774 local government areas in Nigeria. This extensive network penetration into rural areas and the variety of services offered have enabled NIPOST to serve as a tool for the promotion of social, financial and digital inclusion.

There are 250 licensed courier operators in the country, in addition to a large number of courier grey market operators. As at the end of 2010 the annual turnover of the industry was over 350 billion Naira. The dual role of NIPOST as a regulator and operator compromises its effectiveness as a regulator.

The Postal Sector is an amalgam of transport, logistics and distribution, and related entities that are involved in the linking of communities by movement of messages, information, goods and services.

5.3.1   The postal sector is empowered to do the following:
  i.   collection (pick up), transport and distribution of letter mail (letters, newspapers, journals, periodicals, brochures, leaflets and similar printed matters), parcels and packages, express and courier dispatches, whether for domestic or foreign destinations;
 ii.   Post office counter services;
iii.   other postal services which include mailbox rental services, "poste restante" services, philately and public postal services;
 iv.   licensing of private postal operators;

v.   providing financial services; and

vi.   providing eServices

5.3.2   The other stakeholders in the postal sector are:

i.   Private Postal Operators;

ii.   Public Private Partners, including the Postal Agencies;

iii.   Operators such as Aviation Handling Companies, Customs, and Police; etc.;

iv.   Financial Services Operators

v.   eServices Providers

A key tool for postal services is the post code which NIPOST developed since 2000. Its operation is hampered by the fact that most of the country does not have a well organized street naming and house numbering address system by Local Government Authorities.

5.4   Private Sector Participation

NIPOST faces substantial competition from private sector operators inthe postal sector. As mentioned earlier about 250 courier firms have been legally licensed and moreover many transport companies (legal and illegal) are active in the postal market. Furthermore NIPOST is confronted with substitution of physical mail by electronic communication like fax and email. Although these means of electronic communication are not yet highly penetrated in Nigeria, they will certainly become more important in the near future.

International and local courier companies and transport companies are competing with NIPOST in various segments of the postal market: not only in the market for courier items, but also in the letter and parcel markets.

5.4.1   Public Private Partnership

Several Public Private Partnership (PPP) initiatives have been developed within the sector, notable among which are:

i.   NETPOST Limited created to provide ICT services through NIPOSTøs network of post offices around the country;

ii. National Mail Route Network is an outsourced service to private transport operators to assist NIPOST in its mail distribution system;

iii. Post Cash: A financial service product for international and local cash remittances; and

iv. National Cargo Services for transportation and delivery of cargo (items weighing above 50kg).

The competition in the postal market might be considered a favourable phenomenon, showing that private customers and businesses have a choice between various providers of postal services. However, this competition does appear to have influenced the operation of NIPOST fundamentally, especially with respect to efficiency and product differentiation. This may be as a result of NIPOST's legal status and the obligation of the Federal Government of Nigeria (FGN) to cover losses incurred by the agency. A restructuring of NIPOST - including the removal of its regulatory function and, in the least, corporatisation of the agency - is necessary for the continued vibrancy and relevance of the Nigerian postal sector in the new knowledge-based environment.

5.5   Broadcasting

Broadcasting plays a very important role in the lives of the citizens worldwide and is the most effective means of reaching the largest number of people simultaneously. The Federal, regional and state governments monopolized broadcasting in Nigeria, until the promulgation of Decree 38 of 1992 (as amended) which established the National Broadcasting Commission (NBC) and charged it with the responsibility of liberalizing and regulating the broadcasting industry in the country. The law empowers the Commission to license broadcast stations, allocate frequencies, regulate content and, generally set standards for quality broadcasting in the country. NBC's Act Empowers the Commission to:

i.   advise the Federal Government generally on the implementation of National Mass Communication Policy with particular reference to broadcasting;

ii. receive and process applications for the establishment, ownership and operation of broadcasting stations;

iii. recommend applications through the Minister to the President, Commander-in-Chief of Armed Forces for grant of radio and television licenses; and

iv.   regulate and establish a National Broadcasting Code and set standards with regard to the content and quality of materials for broadcast. The Code contains guidelines on a variety of issues including licensing, etc as well as sanctions.

The categories of broadcasting services include:
   i.   terrestrial and Satellite free-to-air sound/television;
   ii.   satellite subscription direct-to-home sound broadcasting;
   iii.   community broadcasting;
   iv.   content distribution service (syndication); and
   v.   Internet broadcast.

The legislative, regulatory and licensing framework for the broadcast sector is transparent and liberalized, and seeks to regulate broadcasting only in circumstances where market forces are inadequate to realize public policy objectives. Broadcast licenses will not be granted to any religious organization or political party. Private and community interests are encouraged to contribute to the development of the industry, while foreign interests are also encouraged to invest and assist in developing broadcast services in the country.

Today, as a result of the deregulation of the Nigerian broadcast industry, the number of Federal, State and private broadcasting stations in the country has, as at 2010, risen to 406, from less than 30 before deregulation. This comprises of:
   i.   211 radio stations;
   ii.   141 TV stations;
   iii.   41 Cable Retransmission Stations known as MMDS; and
   iv.   13 Direct to Home (DTH) Stations.

Federal Government recognizes that there are different funding models for broadcasting services, which contribute to the achievement of public interest objectives in unique ways. This facilitates the provision of a range of broadcasting services through both Government and private sector funding. Community broadcasting in Nigeria augments the services of the broadcasting system by attending to needs that cannot be adequately addressed at Federal, State and Local levels by public and commercial operators, and focuses on the specific communities they serve.

There is a shortage of qualified broadcasters in Nigeria and the Commission is seeking ways to encourage training and skill development in the sector. Based on ITU recommendations, Nigeria, along with other countries has committed to transit from analogue to digital terrestrial broadcasting and broadcasting on the VHF band. Consequently, the Commission has set a July 15, 2013 deadline for the switchover from analogue to digital.

6 SECTORAL STRUCTURE

6.1 Industry Structure

Nigeria's industry structure comprises of operators, suppliers and investors.

6.2 Government Institutional Structure

6.2.1 Current Government Institutional Structure

A Ministry of Communication Technology has recently been created and the following Agencies have been brought under its purview: NCC, NITDA, and NIPOST. Two Limited Liability Companies wholly owned by government; NigComSat and Galaxy Backbone have also been brought under the Ministry[2].

6.2.1.1 The Role of NigComSat

The role of NigComSat includes:

    i.   To manage and exploit the commercial viability of the Nigerian Communications Satellite for the socio-economic benefit of the nation.

6.2.1.2 The Role of Galaxy Backbone

The role of Galaxy Backbone includes:

    ii.   providing ICT infrastructure, applications and services to all FG MDAs and institutions e.g. manage Government Data centres, and databases, Directory Services, National information repositories, IP telephony and other solutions; including but not limited to services delivered on the shared platform

    iii.   providing technical support to the Ministry of Communication Technology for end to end Quality Assurance of ICT projects and capacity building for ICT professionals in Government

---

[2] It should however be noted that the nature of the ownership of these entities will continue to be reviewed by Government and they may in the future cease to be wholly government-owned.

We however note that previous committees have proposed that the new Ministry be named Ministry of Communications and Information Technology and that in addition to the Agencies and wholly owned government institutions, the following Agency and entities should also be brought under its purview: NBC, CPN, and a new ICT intellectual Property Office.

6.2.2   Proposed Government Institutional Structure

The Nigeria ICT institutional structure shall consist of the following components:

- iv.   Ministry responsible for Communications and Information Technology;
- v.   The converged ICT Regulator (Telecommunications + Broadcasting +Postal+ IT);
- vi.   The ICT Development Agency;
- vii.   The Public Postal Operator (NIPOST);
- viii.   Provider of Satellite Services (NigComSat)
- ix.   Provider of connectivity for government agencies(Galaxy Backbone);
- x.   Universal Service Provision Fund; and
- xi.   The National Frequency Management Council (NFMC).

6.3   The Role of the Government

The role of Government in the ICT sector includes:

- i.   providing overall direction for ICT development;
- ii.   ensuring policy consistency of ICT with other national policies; and
- iii.   enacting necessary laws and taking other measures promptly in support of the National ICT Policy.

6.4   The Role of the Ministry

The ministry formulates broad ICT Policy. Specific roles of the ministry shall include the following:

- i.   Proposing policy options and recommending to Government such measures as legislation, fiscal incentives, etc;
- ii.   Monitoring the implementation of government policy in the industry;

iii. Ensuring that the Policy is continually reviewed and aligned to the overall developmental goals of the country and the aspirations of the Government in consultation with all stakeholders in the industry;

iv. Ensuring that the ICT sector provides needed support to the other sectors of the national economy;

v. Liaising with other Ministries on matters affecting the ICT sector and which require inter-ministerial intervention;

vi. Ensuring and co-coordinating national representation and participation in regional and international Organizations and activities;

vii. Liaising with National Assembly on ICT matters; and

viii. Managing the general ICT policy framework for the Federal Republic of Nigeria

6.5 The Role of the Converged Regulator

The converged regulator will consist of departments including Telecommunications, IT, Broadcasting and Postal; each of which should be headed by an executive commissioner. The roles of the converged Regulator shall include the following:

i. Develop and administer a comprehensive regulatory regime for the ICT sector;

ii. Regulating the ICT industry in line with government policies, objectives and goals;

iii. Promote, encourage and protect private sector led investment in the industry through a fair and competitive ICT environment, as well as economic and technical regulation of the sector;

iv. Use its regulatory powers to promote a level playing field for all participants through equal opportunity and equal access to relevant information, markets and resources such as spectrum and numbers;

v. Promote Universal Access to ICT services, including developing regulations and designing a framework to guide the attainment of Universal Access, as well as enabling funding to help finance investment in ICT for unserved and underserved populations;

vi. Ensure the provision of Universal Postal Service Obligations;

vii. Establish and enforce technical/operational standards and practices as well as Quality of Service (QoS) standards.

viii. Balance regulatory concerns in order to ensure that the interest of all Stakeholders are carefully considered and protected;

ix. Encourage a light touch regulatory approach;

x. Ensure equitable and transparent assignment of scarce resources such as radio frequency spectrum allocated to it by the National Frequency Management Council for (commercial ICT providers), numbers, internet names and addresses among other and promoting efficient use of same;

xi. Promote transparency in consultation and rulemaking, including undertaking Regulatory Impact Assessments (RIA) on proposed regulatory initiatives;

xii. Develop options for infrastructure sharing and collocation;

xiii. Review current licensing categories so as to be compliant with the converged framework;

xiv. Provide a dispute resolution framework for the ICT sector.

xv. Prepare and implement programmes and plans that promote and ensure the development of the ICT industry and the provision of ICT services in Nigeria;

xvi. Advise the Minister on the formulation of the general policies for the ICT industry and generally on matters relating to the ICT industry in the exercise of the Minister's functions and responsibilities;

xvii. Generally advising and assisting ICT industry stakeholders and practitioners with a view to the development of the industry; and

xviii. Developing and implementing Consumer Protection standards for customers of communications services to ensure fairness, transparency, and valuable services are provided.

6.6   The Role of the ICT Development Agency

The ICT Development Agency shall carry out the following functions:

i. Formulate plans for ICT initiatives as appropriate;

ii. Provide support to the private sector where appropriate to implement ICT developmental initiatives;

iii. Identify emerging global ICT trends and evaluate their potential impacts on Nigerian ICT Industries;

iv. Facilitate the implementation of e-government initiatives;

v. Develop frameworks and guidelines, including interoperability and e-government frameworks, for the enhanced development and use of ICT in the Government

vi. Facilitate and promote an enabling environment for the development of world-class indigenous ICT content;

vii. Facilitate and promote standards for development of ICT projects;

viii. Conduct studies to aid ICT sector development;

ix. Advise the Minister on the formulation of the general policies for the ICT industry and generally on matters relating to the ICT industry in the exercise of the Minister's functions and responsibilities;

x. Generally advising and assisting ICT industry stakeholders and practitioners with a view to the development of the industry;

xi. Provide general guidelines for MDA ICT projects and procurements to eliminate duplication and ensure efficient use of government resources; and

xii. xi. Encourage ICT capacity building programme among MDAs, the legislature and the judiciary to assist in the transformation of the country into a knowledge driven economy.

6.7 The Role of the National Frequency Management Council

The National Frequency Management Council (NFMC) shall be the entity responsible for:

i. overall planning, coordination and bulk allocation of the radio frequency spectrum in the country; and

ii. overall monitoring of the radio spectrum allocation in the country.

6.8 The Role of the Public Postal Operator

The Public Postal Operator (PPO) is responsible for:

i. developing and operating the network of postal outlets;

ii. providing postal services; and

iii. acting as a conduit for financial, social and digital inclusion through the extension of ICT-enabled products and services to traditionally un-served or underserved groups.

iv. Providing Universal Postal Service Obligation

7 POLICY FOCUS AREAS

7.1 Research, development and Innovation

Research, Development and Innovation (RDI) is a strategic imperative for the attainment of sustainable development and competitiveness. Research is necessary for the technological development of the nation and for reaping the enormous benefits that exist in the ICT sector of the economy. There is therefore a compelling need to boost RDI in the ICT sector.

7.1.1 Objectives

i. Stimulate and encourage research, development and innovation in ICT;

ii. Exploit the results of research, development and innovation in ICT;

iii. Ensure that adequate resources are provided for ICT related research;

iv. Enhance collaboration among stakeholders in the design, execution, documentation and exchange of research ideas and results.

7.1.2 Strategies

The Government shall;

i. Promote collaborative R&D in ICT and encourage stakeholders to support such efforts in relevant institutions;

ii. Identify R&D focus areas with the involvement of Industry, Academia and Research institutions;

iii. Set, review, and implement guidelines for ICT research and development initiatives;

iv. Ensure development of national ICT standards as well as contribute to global standards;

v. Encourage collaborative ICT R&D in hardware and software as well as high-end computing and socio-economic issues;

vi. Facilitate and nurture local ICT content development; and

vii. Undertake collaborative research, advocacy, and consultation to monitor the impact of the adoption of ICT initiatives on the society and disseminate the findings as appropriate.

7.2 Safety and National Security

The protection of life and property as well as the promotion of national security is vital for overall economic development.

7.2.1 Objectives

i. Enhance national security, including physical and cyber security;
ii. Protect the rights and privacy of the citizens;
iii. Foster information sharing among security agencies;
iv. Ensure protection of the child in cyberspace;
v. Ensure that ICT operators comply with generally accepted standards for provision of special services for safety, emergency and national security;
vi. Build confidence in the use of ICT networks and services.

7.2.2 Strategies

The Government shall:
i. ensure capacity development of its institutions to contain cybercrimes and collaborate with regional and international Agencies;
ii. review existing legal instruments pertaining to procedural and evidential law to permit the usage of electronic evidence, recognition of õ cyberspaceö and address jurisdictional issues;
iii. ensure that operators take all necessary steps to prevent the use of their ICT networks and facilities for the commission of crimes.
iv. ensure the protection of life and property of all citizens and safeguard ICT infrastructure;
v. ensure the provision of ICT services for emergency and distress situations in all parts of the country (on land, sea and air) and support international co-operation;

<ol type="i" start="6">
ensure that laws relating to ICT offences are kept under constant review and enforced; and
ensure that all the necessary instruments for the administration of the ICT industry are set up with the enactment of relevant legislations.

7.3 Software Development and Hardware Production

7.3.1 Software Development

The software industry is a multibillion dollar industry and Nigeria can benefit tremendously from developing its own domestic software industry to cater for both domestic and export markets. However the sector has received limited support from Government and has generally faced the challenge of intense foreign competition. There is need for Government to create an enabling environment to encourage private sector software innovation and development.

7.3.1.1 Objectives

<ol type="i">
Position Nigeria as a world leader in software development where the software industry becomes a major contributor to national wealth.
Provide incentives for the growth of the software industry.
Promote software development education in the country.
Encourage promotion of software development and content for local and export markets;
Encourage the attainment of a significant increase in local content of ICT software and services by 2014.

7.3.1.2 Strategies

<ol type="i">
Ensure that indigenous software meet international standards;
Provide incentives and initiatives that will significantly increase the number software developers in the next few years;
Build a strong interface between the industry and academia for software development;

iv.   Promote collaboration amongst software developers, as well as development of open source software;

v.   Ensure that security and privacy in software information system is maintained;

vi.   Ensure that intellectual property rights are protected;

vii.   Promote international certification of indigenous software;

viii.   Encourage the creation of major software projects as platform for indigenous software industry to acquire appropriate experience for global competitiveness;

ix.   Promote the patronage of indigenous software products and services.

7.3.2   Hardware Production

The hardware component of the ICT industry is substantial and thus it would be beneficial for Nigeria to develop a sustained program for enhancing its hardware production industry

7.3.2.1 Objectives

i)   To promote the local design and manufacture of ICT hardware;

ii)   To establish appropriate standards for the production of efficient and cost-effective solutions;

iii)   To significantly increase the number of Nigerians that own computers.

7.3.2.2 Strategies

i)   Encourage the local design and manufacture of ICT hardware that conform to global standards;

ii)   Promote the diffusion of ICT knowledge for optimal use of hardware;

iii)   Facilitate low cost, individual ownership or access of computers for every Nigerian;

7.4   Local Content and Manufacturing

Most ICT platforms in Nigeria such as the World Wide Web tend to be dominated by non local content. The desirability of creating local content has been acknowledged by Governments worldwide. Creating more local content will make the various ICT platforms; including those that reside in cyberspace, more relevant and applicable to national development.

7.4.1   Objectives

i.   Increase Nigerian indigenous content on the World Wide Web;

ii.   Ensure rapid indigenization and domestication of high technology ICT products and services; and

iii.   Create Nigerian equivalent of Google, Netflix, eBay, and other web based media platforms.

7.4.2   Strategies

i.   Develop and implement an ICT Local content Policy for Nigeria;

ii.   Digitize local content in areas such as music, movie, tourism, etc; and

iii.   Digitize and make available on line local content.

7.5   Local Manufacturing

The domestic production of ICT hardware is desirable for national development and, in particular, the ICT industry.

7.5.1   Objectives

i.   To produce various categories of ICT equipment and components to meet local and export demands;

ii.   To promote the development of the ICT sector as an integral part of the National Industrial Policy of Nigeria;

7.5.2   Strategies

Government shall:

i.   Encourage the establishment and expansion of domestic capacity to produce hardware and software for the ICT sector;

ii.   Encourage the Regulator to ensure that the domestic production of hardware and software complies with international technical standards and quality;

iii.   Encourage joint ventures between Nigerian and foreign enterprises towards the production of ICT equipment;

iv.   Encourage the patronage of locally manufactured ICT products;

v.   Encourage research and development of appropriate ICT devices for the physically challenged to enable them enjoy the benefits of the ICT revolution in the country;

vi.   Encourage manufacturers to set up factories for the manufacture of Set Top Boxes that are required for the transition from analogue to digital broadcasting; and

vii.   Provide incentives to encourage Foreign Direct Investment for local manufacturing.

7.6   Outsourcing

Outsourcing is a multi-billion naira industry world-wide. Many developing nations are devoting significant resources to growing the industry and making it a significant contributor to gross domestic product (GDP).Nigeria is particularly well positioned for this industry because its official language is English and it has a large, fairly well educated and relatively inexpensive labour force.

7.6.1   Objectives

i.   Develop a globally competitive Information Technology Enabled Services (ITES) sector in Nigeria;

ii.   Facilitate the diversification of the national economy through the development of a vibrant outsourcing sector, including developing an export-oriented ICT product and service delivery industry;

iii. Accelerate human resource and ICT infrastructure development to support growth in the outsourcing sector; and

iv. Ensure an integrated and coherent effort and coordination between all tiers of Government.

7.6.2 Strategies

Government shall:

i. Promote an enabling, legal, regulatory, technological and infrastructural environment for the sustainable development of the outsourcing sector in Nigeria;

ii. License outsourcing companies for certification in conformity with international standards and best practice;

iii. Fund appropriate ICT infrastructure development that will support reliable outsourcing businesses; and

iv. Provide incentives (such as tax relief or pioneer status over a specified period) to encourage strong private sector leadership of the sector.

7.7 Capacity Building

Transformation to a knowledge based economy requires significant investment in the development of ICT skills. Therefore there is the need for a sustained program to build a critical mass of ICT skilled personnel in Nigeria.

7.7.1 Objectives

i. To integrate ICT into the national education curriculum.

ii. To promote the culture of lifelong learning.

iii. To promote development of ICT skilled personnel.

iv. To support training and capacity building among public sector employees in the development and use of ICT tools and applications to improve the delivery of Government services.

7.7.2 Strategies

Government shall:

i. Develop facilitate the development of globally competitive training institutions in the field of ICT;

ii. Introduce mandatory training and appropriate courses for the ICT at all tiers of education;

viii. Encourage continuous training for professionals through specialized training institutes (e.g. Digital Bridge Institute, NTA College Jos, Radio Nigeria Training School Lagos, NIPOST training Institute etc);

ix. Foster an ICT driven educational administration environment;

x. Train and retool teachers and facilitators at all levels, to enhance their ICT competence;

xi. Promote ICT awareness and proficiency in mass and non-formal education with emphasis on children, women and the physically challenged;

xii. Promote the development of instructional materials in electronic format.

xiii. Develop and implement ICT training programs for public sector employees, in connection with introduction of e-Government and other digital functions within Government offices.

7.8 ICT Infrastructure

Globalization makes it compelling for Nigeria to enhance the development of its National ICT Infrastructure to respond effectively to new challenges. Therefore it is necessary to develop ICT infrastructure in support of National development.

7.8.1 Objectives

i. To develop a nationwide ICT infrastructure that will support national broadband connectivity and accelerate socio economic development;

ii. To accord ICT infrastructure the status of critical national infrastructure;

iii. To connect all Federal & State networks to a National fibre backbone;

iv. To provide a reliable, accessible, secure and affordable ICT connectivity to national and international ICT Infrastructure.

7.8.2 Strategies

Government shall:

   i. Encourage the upgrading and expansion of ICT infrastructures;
   ii. Accelerate the deployment of fibre optic and wireless backbone infrastructure that ensures high bandwidth availability, universal access. throughout the country;
   iii. Encourage the development and interconnection of all National Databases;
   iv. Coordinate the integration of national e-Government network infrastructure and services;
   v. Ensure appropriate security for ICT infrastructure nationwide;
   vi. Accelerate the ongoing power sector reforms which are critical to the development of the ICT industry.

7.9 Broadband

It is widely acknowledged that broadband infrastructure is an enabler for economic and social growth in the digital economy. Therefore as part of the national universal service obligation, broadband access shall be made universally available to all citizens

7.9.1 Objectives

   i. To accelerate the penetration of affordable broadband Internet in the country;
   ii. To foster broadband usage for national development.

7.9.2 Strategies

Government shall:

   i. Provide periodic review of the broadband penetration targets in order to determine further action for broadband expansion.

ii.   Promote both supply- and demand-side policies that create incentives for broadband backbone and access network deployment;

iii.   Facilitate broadband development and deployment, leveraging on existing universal service frameworks;

iv.   Provide special incentives to operators to encourage them to increase their investment in broadband rollout;

v.   Promote e-Government and other e-services that would foster broadband usages.

7.10 Management of Scarce Resources

The effective and efficient deployment of ICT requires prudent and judicious management of some scarce natural resources or government owned and government influenced assets which include radio frequency spectrum, numbers, right of way, and orbital space. It is imperative that appropriate measures are adopted tomaximize the economic and social benefits that Nigerians derive from the use of these scarce resources.

7.10.1 Policy objectives for Management of Government owned and Government influenced Assets (Scarce Natural Resources)

i.   To ensure effective planning, allocation, licensing, assignment and monitoring of spectrum;

ii.   To ensure judicious allocation of numbers;

iii.   To devise a national plan for allocation of right of way for all tiers of Government;

iv.   To devise a national plan for effective coordination of Nigerian's orbital space.

7.10.2 Strategies for effective Spectrum Management

The Government shall

i.   Ensure the effective allocation and management of bulk and commercial spectrum;

ii.   Ensure the judicious allocation of numbers based on an open non discriminatory transparent basis;

iii.   Ensure coordination between the relevant agencies that are involved in issuing right of way for ICT infrastructure deployment; and

iv.   Ensure, in consultation with ITU, the proper coordination and utilization of orbital space for effective national development.

7.11 Investment and Funding

Investment and funding are critical to the success of any national ICT development plans and programs. Typically sources for such funding would include Government, the private sector, as well as international organizations. Government has the critical role of creating an enabling environment that will attract investment and funding from these various stakeholders.

7.11.1 Policy Objectives

i.   To create an enabling environment and facilitate foreign direct investment as well as national private sector investment in the ICT industry;

ii.   To further deregulate, liberalise and increase competition in the ICT sector;

iii.   To encourage public-private partnerships for the development of ICT; and

iv.   To provide funding of government ICT projects through appropriate budgetary allocation.

7.11.2 Strategies

Government shall

i.   Provide incentives such as appropriate tax and import duty reliefs;

ii.   Grant pioneer status to qualified investors to encourage investment in the ICT sector;

iii.   Provide appropriate fiscal incentives to encourage local manufacture of ICT equipment and development of related software;

iv. Streamline procedures and requirements for the importation of ICT equipment;

v. Provide a simplified licensing regime to encourage rapid inflow of private investment;

vi. Encourage the creation of õone-stop shopsö for obtaining approvals and permits required for the development of ICT infrastructure;

vii. Take steps to reduce the occurrence of multiple taxation and regulation in ICT;

viii. Adopt financing models that foster indigenous ICT entrepreneurship.

7.12 Regional/International Cooperation and Collaboration

International co-operation is essential for development of the ICT sector. It affords countries the opportunity to share experiences and to set common standards and policies for ICT development. It is important to maximize participation in relevant international fora in order to accelerate Nigeriaøs full integration into the global information society.

7.12.1 Policy Objectives

i. To promote effective participation of Nigeria in the activities of various international organizations;

ii. To ensure that Nigeria adopts international best practices and standards in the ICT industry;

iii. To promote existing and future markets for Nigerian ICT products and services;

iv. To advance the harmonization of ICT policies and legal framework across the region.

7.12.2 Strategies

Government shall

i. Ensure effective participation by Nigeria at all relevant regional and international fora through adequate planning and formulation of Nigeriaøs position and strategies;

ii. Comply with all membership obligations and provide requisite support to regional and international organizations;

iii. Actively pursue international agreements that promote Nigeria's ICT development agenda;

iv. Support and participate in sub regional and regional policy harmonization initiatives embarked upon by regional organizations;

v. Ensure that Nigeria occupies strategic positions in regional/international organizations;

vi. Ensure effective implementation and monitoring of collaborative agreements;

vii. Promote participations of all stakeholders such as the Youth, Academia, Civil Societies, Private Sector, Diaspora, in Nigeria's participation in international fora.

7.13 Transition from Analogue to Digital Broadcasting

There is a current global trend towards conversion from analogue to digital broadcasting and Nigeria should take advantage of the opportunities inherent in this transformation. Some of the benefits of migration include higher quality reception, access to more channels and availability of a wider spectrum of value added services.

7.13.1 Policy Objectives

i. To comply with ITU mandate of migrating from analogue to digital broadcasting;

ii. To properly manage the benefit of digital dividend that will result from the migration.

7.13.2 Strategies

The Government shall:

i. embark on a massive publicity campaign for the purpose of sensitizing the general public on the transition from analogue to digital broadcasting;

ii. Ensure availability and cost effectiveness of set top boxes;

iii. Encourage the local manufacturing of set top boxes in Nigeria;

iv. Develop a licensing regime for signal distributors and content providers;

v. Provide a clear roadmap for harvesting the õdigital dividendö spectrum and ensure competitive allocation of the resource;

vi. Ensure compliance of migration by the ITU mandated dates of 2015 for UHF and 2020 for VHF

7.14 Legal Framework

The reality of technological and market convergence implies that existing policies relating to the ICT sector in Nigeria are in need of a critical review. Most of the objectives in the existing policies have been overtaken by technological advancement and market transformations worldwide. A key requirement is the development of appropriate policies, as well as legal and regulatory framework that foster an enabling environment.

7.14.1 Policy Objectives

i. To enact Laws that appropriately promotes the development of ICT sector for national growth.

ii. To enact appropriate legislation to ensure protection of physical ICT infrastructure, address cyber security and safeguards national security.

iii. To prevent the occurrence of multiple regulation which is a disincentive to investors

7.14.2 Strategies

Government shall;

i. Review and harmonize all existing laws as well as create new ICT related laws to promote the growth of the sector;

ii. Enact new laws that support development of the sector; and

iii. Amend the relevant sections of the 1999 Constitution of the Federal Republic of Nigeria to permit the issuance of broadcasting licenses by the Regulator.

7.15 ICT and the Environment

Preservation and enhancement of the environment is an established and growing worldwide concern. There is increasing interest in the impact of ICT activities on the environment. Accordingly, the relationship between ICT and the environment is given significant attention in national ICT development plans.

7.15.1 Policy Objectives

i.   To promote the use of environmentally friendly and sustainable ICT
ii.   To monitor the relationship between the environment and ICT;
iii.   To utilize ICT to minimize environmental degradation and manage natural disasters.

7.15.2 Strategies

The Government shall;
i.   Commit to initiatives, policies and programs that ensure that the environment is adequately protected; and
ii.   Promote collocation as a means of minimizing impact of ICT infrastructure on the environment.

7.16 Universal Access and Service

It is globally acknowledged that citizenøs access to ICT networks and services is a desirable national development goal. However in many developing countries including Nigeria significant portions of the population are either unserved or underserved. Lack of access has obvious consequences for national development such as diminished participation in elections and democratic governance.

Nigeria, following international best practices is addressing the challenges through the development of various initiatives in the sector. It is important that the pursuit of the goals of universal access/service be accelerated as indicated in Vision 20:2020.

7.16.1 Policy Objectives

i.   To extend the universal access/service nationwide in the shortest possible time;

ii.   To ensure ubiquitous broadband presence nationwide for citizen access to the information super-highway;

iii. To ensure that citizens have access to all ICT services at affordable prices; and

iv.   To ensure that ICT contributes to national growth and improve the welfare of the citizens;

7.16.2 Strategies

Government shall

i.   Extend the definition of universal service/access to incorporate digital literacy and nationwide broadband presence;

ii.   Continue to subsidize infrastructure deployment including broadband that would foster universal access/service;

iii. Utilise existing infrastructure (Post Offices, Schools, Libraries) to extend universal access/service;

iv.   Promote the use of e-Services nationwide for all population groups and including in remote and underserved areas;

v.   Evaluate existing funding mechanisms to improve efficient use of resources in pursuit of universal access/service;

vi.   Encourage the aggressive and rapid fibre-optic network deployment through a regime of incentives and subsidies as well as the promotion of public private partnerships;

vii. Provide personal computers in public places (e.g. post offices, schools, public libraries, etc.) in small and large communities to help low-income segments of society gain access to the internet and for educational purposes.

viii. To establish a robust and independent Universal Service Provision Fund for the converged industry for effective and efficient delivery of its services to unserved and underserved areas of the country.

8   POLICY IMPLEMENTATION AND REVIEW

Successful implementation of any national policy program must incorporate monitoring and review. The National ICT Policy shall;

    i.   be used to develop Action Plans for the ICT sector.

    ii.   serve as a guide for developing some sub-sectoral policies and specific implementation guidelines as appropriate.

An effective monitoring and review process shall be put in place and annual reports on ICT development in Nigeria will be prepared and published by the Ministry.

9 CONCLUSION

This National ICT Policy is the end result of the harmonization of various existing ICT related policies, laws and committee reports. It has taken into account the background, history and problems facing the ICT industry in Nigeria. There was further extensive consultation even during the harmonization process. To the extent that is possible, the interest, views and opinions of every relevant organization were sought and taken into account. The National ICT Policy is, therefore, all inclusive.

ANNEX LIST OF ACRONYMMS

1. African Telecommunications Union (ATU)
2. African Union (AU)
3. African Union of Broadcasting (AUB)
4. Association of Licensed Telecom Operators of Nigeria (ALTON)
5. Broadcasting Organizations of Nigeria (BON)
6. Code Division Multiple Access (CDMA)
7. Commonwealth Telecommunications Organisation (CTO)
8. Communication Service Providers (CSPs)
9. Computer Emergency Response Team (CERT)
10. Computer for all Nigerian Initiative (CANI)
11. Computer Professionals Registration Council of Nigeria (CPRCN)
12. Digital Video Broadcasting (DVB)
13. Direct to Home (DTH)
14. Education Trust Fund(ETF)
15. Emergency Management Agency (NEMA)
16. Federal Government of Nigeria(FGN)
17. Federal Ministry of Education (FME)
18. Federal Ministry of Science and Technology(FMST)
19. Federal Radio Corporation of Nigeria (FRCN)
20. Foreign Direct Investment (FDI)
21. Global System of Mobile Communications (GSM)
22. Honourable Minister of Communications & Information Technology (HMCIT)
23. Honourable Minister of Communications Technology (HMCT)
24. Honourable Minister, Science and Technology (HMST)
25. Information Technology Association of Nigeria (ITAN)National Board for Technical Education (NBTE)
26. Institute of Software Practitioners of Nigeria (ISPON)
27. Interconnect Clearing House of Nigeria (ICN)
28. International Mobile Satellite Organisation (IMSO)
29. Internet Corporation for Assigned Names and Numbers (ICANN)

30. Internet Exchange Point Network (IXPN)

31. Internet protocol (IP)

32. Internet Protocol Television (IPTV)

33. Internet Service Provider (ISP)

34. Key Performance Indicator (KPI)

35. Knowledge Based Economy (KBE)

36. Licensed Interconnect Clearing Houses (ICHs)

37. Local Government Area (LGA)

38. Millennium Development Goal (MDG)

39. Ministry of Information and Communications (MOIC)

40. Ministry, Department and Agency (MDA)

41. Monitoring and Evaluation (M&E)

42. National Broadcasting Commission (NBC)

43. National Film/Video Censorship Board (NFVCB)

44. National Frequency Management Council (NFMC)

45. National Identity Management Commission (NIMC)

46. National Information Technology Development (NITDA)

47. National Information Technology Development Fund (NITDEF)

48. National Office for Technology Acquisition and Promotion (NOTAP)

49. National Orientation Agency (NOA)

50. National Planning Commission (NPC)

51. National Radio Frequency Plan (NRFP)

52. National Space Research and Development Agency (NASRDA)

53. National Telecommunications Policy (NTP)

54. National Television Authority (NTA)

55. News Agency of Nigeria (NAN)

56. Nigeria Computer Society (NCS)

57. Nigeria Telecommunication Ltd (NITEL)

58. Nigerian Communications Act 2003 (NCA)

59. Nigerian Communications Commission (NCC)

60. Nigerian Communications Satellite (NigComSat) Ltd

61. Nigerian Film Corporation (NFC)

62. Nigerian Internet Group (NIG)

63. Nigerian Internet Registration Authority (NIRA)

64. Nigerian Investment Promotion Commission (NIPC)

65. Nigerian Maritime Administration and Safety Agency (NIMASA)

66. Nigerian Postal Services (NIPOST)

67. Nigerian Press Council (NPC)

68. Office of the Head of the Civil Service of the Federation (OHCSF)

69. Operation Wire Nigeria (WiN)

70. Original Equipment Manufacturer (OEM)

71. Personal Computer (PC)

72. Petroleum Trust Development Fund (PTDF)

73. Public Key Infrastructure (PKI)

74. Public Private Partnership (PPP)

75. Public Safety Answering Point (PSAP)

76. Quality of Service (QoS)

77. Regional African Satellite Communications Organisation (RASCOM)

78. Research and Development (R & D)

79. Rural Broadband Initiative (RUBI)

80. Rural Information Technology Centre (RITC)

81. Rural Telephony Project (RTP)

82. Set Top Boxes (STBs)

83. State Accelerated Broadband Initiative (SABI)

84. Subscribers Identification Module (SIM)

85. Television (TV)

86. United Nations (UN)

87. United Nations Economic Commission for Africa (UNECA)

88. Universal Access Service Licences (UASLs)

89. Universal Service Provision Fund (USPF)

90. Very Small Aperture Terminal (VSAT)

91. Voice of Nigeria (VON)

92. Voice Over Internet Protocol (VOIP)

93. West African Telecommunications Regulatory Authority (WATRA)

94. World Trade Organisation (WTO)