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" ICT POLICIES, STRATEGIES AND INITIATIVES PUT IN PLACE IN UGANDA "

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ICT POLICIES, STRATEGIES AND INITIATIVES PUT IN PLACE IN UGANDA

NITA-U
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1 INFORMATION COMMUNICATION TECHNOLOGY (ICT) STRATEGIES

1.1 Creation of the Ministry of ICT

The Government of Uganda has undertaken a number of Policies, strategies and initiatives in the development of ICT in the country; among this is the creation of a fully-fledged Ministry of Information and Communications Technology to provide strategic and technical leadership, overall coordination, support and advocacy on all matters of policy, laws, regulations and strategy; sustainable, effective and efficient development, harnessing and utilization of Information and Communications Technology (ICT) in all spheres of life to enable the country achieve its national development goals.

With the creation of the Ministry of ICT there have been significant reforms in the ICT sector such as;

- Liberalized telecom sector that has led to more operators, lower costs and more services (GPRS, EDGE, 3G, WiMAX, etc). Blackberry services were also introduced for general public usage and TETRA Systems for the security agencies.
- Increase of telephone subscriber base in the country from 6% penetration -2.2 million subscribers in June 2006 to 24% penetration – 8.2 million subscribers by December 2008. ie. a growth of 6 million subscribers in 2 years or average annual growth rate of 70%.
- Increase of ICT coverage in terms of voice coverage to all districts, Internet, awareness.
- Developed a Business Outsourcing Strategy for Uganda to join in the globally marketable outsourcing services.
- Integration of ICTs into the National Planning Framework
- Reviewed the Telecommunications Policy and the Postal Policy
- Formulation of the draft National IT policy as part of the general National ICT Policy

2 AGENCIES UNDER MINISTRY OF ICT

2.1 National Information Technology Authority-Uganda

The National Information Technology Authority Uganda (NITA-U) was established in 2009 by an Act of Parliament of Uganda. NITA-U is an autonomous body which is also an agency of Government and under the general supervision of the Ministry of ICT. Its mandate is to coordinate, promote and monitor IT development within the context of national social and economic development.

2.1.1 Functions of the Authority

The regulatory functions of the NITA-U are:

- i. To provide first-level Technical support and advice for critical Government Information Technology Systems including managing the utilization of the resources and infrastructure for centralized Data Center facilities for large systems through the provision of specialized Technical skills ;
- ii. To identify and advise Government on all matters of Information Technology Development, utilization and deployment including systems development, Information Technology Security, training and support ;

- iii. To set, monitor and regulate standards for Information Technology Planning, acquisition, implementation, delivery, support, organization, sustenance, risk management, data protection, security and contingency planning.
- iv. To regulate the electronic signature infrastructure and other related matters as used in the electronic transactions in Uganda;
- v. To promote and provide Technical guidance for the establishment of e-Government and e-Commerce in Uganda;
- vi. In liaison with other relevant institutions, to regulate the Information Technology profession in Uganda in order to ensure its effective promotion and Development ;
- vii. To provide and Information management service through acting as a records management facility and an information depository;
- viii. To provide guidance on the establishment of an infrastructure for information sharing by Government and related stakeholders
- ix. To provide guidance in Information Technology audit services to Government
- x. To undertake and commission research as may be necessary to promote the objective of the Authority;
- xi. To arbitrate disputes arising between suppliers of Information Technology solutions and consumers;
- xii. To undertake any other activity necessary for the implementation of the objects of the Authority.

2.1.2 Initiatives

The National Information Technology Authority-Uganda (NITA-U) is currently undertaking a number of initiatives.

2.1.2.1 National Backbone Infrastructure (NBI)/ Electronic Government Infrastructure (EGI)

The Government of Uganda through the Ministry of ICT and NITA-U embarked on an NBI/EGI project. The project involves the following components:

- i. **National Backbone Infrastructure (NBI):** This involves the laying of Fiber Optic Cable in major towns and is intended to ensure that high bandwidth data connection is available in all major towns of Uganda at a reasonable rate.
- ii. **Electronic Government Infrastructure:** This is designed to reduce the cost of doing business in government, improving communications between government agencies, and reducing the need for officials to commute for meetings and thereby increasing efficiency.

2.1.2.2 District Business Information Centers (DBICs)

The establishment of DBICs in Uganda is closely linked with e-government initiatives and is a response to the challenge of enhancing productivity and fighting marginalization of the rural Uganda in a sustainable manner.

The DBICs project aims at promoting, among others, affordable and timely access to ICTs in rural Uganda which will enhance, by electronic means, the exchange of information and experience among government officials and their communities (through Internet, Desktop Services, Telephones, Fax, Printing and other Business Information Systems in different towns).

2.1.2.3 National Security Identification System (NSIS)

The NSIS is a project aimed at registering all Ugandan nationals (citizens & non-citizens) and provision of National ID numbers & ID cards to citizens as stipulated in the provisions of the Article 16 (1) Article 16 (3) (a) of the Constitution of the Republic of Uganda. The project aims at building a system that can identify and verify nationals in a reliable

manner, subsequently enhancing national security and provision of fair and equitable administration services. The first phase of the project involved the registration of voters for the presidential & parliamentary elections.

2.1.2.4 Business Process Outsourcing (BPO)

Uganda made an assessment of the BPO industry by conducting an analysis and evaluation of the current and prospective profitability, liquidity and the overall economic, social and political benefits and challenges of the industry in Uganda. The assessment manifested into a Model. Currently, a strategy for BPO implementation is being proposed to build on the already existing model.

2.2 Uganda Communications Commission (UCC)

The UCC was established to implement the provisions of The Communications Act Cap 106 Laws of Uganda with a principal goal of developing a modern communications sub-sector and Infrastructure in Uganda, in conformity with the operationalization of the Telecommunications Policy. The Commission is mandated to undertake a range of functions in the following areas:

- i. Licensing and standards;
- ii. Spectrum management;
- iii. Tariff regulation;
- iv. Research and development;
- v. Consumer empowerment;
- vi. Policy advice & implementation;
- vii. Rural communications development; and
- viii. Capacity building.

2.2.1 Initiatives

Rural Communications: The Uganda Communications Commission (UCC) started and administers a Universal Service Fund (USF) for communications in accordance with the provisions of the Communications Act of 1997. The USF is called the Rural Communications Development Fund (RCDF). The main objectives of RCDF are to;

- Provide access to basic communications services within a reasonable distance to all the people in Uganda
- Leverage investment into rural communications development
- Promote ICT usage in Uganda

Under the RCDF a number of projects are currently being undertaken among which the following are;

- i. **Internet Points of Presence (POP):** Provides a wireless connectivity network in a radius of about 5-10km. People within this area can access connectivity at costs, speeds and types of services that are comparable to those in the capital, Kampala.
- ii. **Internet Cafes/ICT Training Centers:** This programme provides public access to internet and training services to people in the district.
- iii. **District Web Portal:** The district web portals names take the general form **www.district name.go.ug** and the common information provided by the web portals include; district overview and profile, health, agriculture, education, government and politics, investment and trade, tourism, profile of district leaders and contacts, government programmes, environment, SMS services, infrastructure and news. The portal also provides a translation in to the common language used in the district

- iv. **Public pay phones:** This takes two main forms; the standard type that is used is only limited to initiate calls and the Community Information Center (CIC) used for both initiating and limited termination of calls and other basic services such as charging phones.
- v. **GSM Network Expansion Project:** A subsidy was provided through a competitive bidding process, to operators to expand voice networks to sub counties that did not have network coverage in 2004. A total of 90 sites have been established bringing the network coverage of Uganda at sub-county level to 100%.
- vi. **School ICT laboratories:** The programme provides support to the Ministry of Education and Sports to increase access and usage of ICT in schools. The programme comprises three (3) main projects;
 - A project for establishment of ICT laboratories
 - A project for providing connectivity and;
 - A project for content delivery.
- vii. **Health ICT facilities:** This programme provides support to the Ministry of Health to enhance usage of ICT in health services delivery in the country.
- viii. **Postal Telecentres and Postal Expansion Projects:** Under this programme support has been provided to the postal sector for the establishment of 25 postal offices at the sub-county level and establishment of 20 postal telecentres in 20 selected district post offices across the country.

2.3 Broadcasting Council (BC):

The Broadcasting Council was established to implement the provisions of the Electronic Media Act Cap. 104 Laws of Uganda 2000, with a principal goal of developing a modern broadcasting sector and infrastructure in Uganda.

The Council is mandated to undertake a range of functions in the following areas:

- i. To introduce and exercise control over and to supervise broadcasting activities;
- ii. To be responsible for the standardization, planning and management of the frequency spectrum dedicated to broadcasting and to allocate those spectrum resources in such manner as to ensure widest possible variety of programming and optimal utilization of those spectrum resources;
- iii. To coordinate communication on electronic media with the relevant national and international organizations;
- iv. To receive and consider applications made to it under this Act;
- v. To set ethical broadcasting standards;
- vi. To arbitrate in consultation with the Media Council on disputes between:
- vii. Operators of broadcasting stations; and
- viii. The public and operators of broadcasting stations;
- ix. To advise government on all matters relating to broadcasting Policy; and
- x. To carry out any other function that is incidental to any of the foregoing functions.

3 Laws that have been passed

3.1 Cyber Bills Passed

The Parliament of Uganda on 7th October, 2010 passed into law two cyber bills that will provide for the long overdue legal regulations for security of electronic transactions. This follows the increasing business done on line in the country and world over every day. Cybercrime has invaded online transactions posing a challenge for a legal framework to address this issue in the country that will now be addressed by these Bills when assented by the President of Uganda. As Government embraces the use of ICT in delivery of its services, it is envisaged that more

citizen and business targeted services will move online for easier access and efficiency. The cyber laws will provide the legal framework to govern such transactions and to address cyber terrorism. The passing of these bills closely follows the passing of the Computer Misuse bill.

Here below is a brief on each of the cyber bills;

- i. **Electronic Signatures Bill:** will make provision for and regulate the use of electronic signatures and provide for other related matters;
- ii. **Electronic Transactions Bill:** will provide for the use, security, facilitation and regulation of electronic communications and transactions; encourage the use of e-Government services and provide for related matters;
- iii. **The computer misuse bill:** will make provision for the safety and security of electronic transactions and information systems. The computer misuse bill was developed to make a provision for the safety and security of electronic transactions and information systems; to prevent unlawful access, abuse or misuse of information systems by including computers (and mobile phones too) and to make provision for securing the conduct of electronic transactions in a trustworthy electronic environment and to provide for other related matters.

The computer misuse bill was passed by parliament to provide for a magistrate to grant permission to the Police to search premises and seize computer systems if there are reasonable grounds to believe that a crime has been or is about to be committed. The bill also covers electronic fraud, unauthorized access to computer systems, and disclosure of access codes (can be interpreted to refer to passwords) to unauthorized persons. The computer misuse bill is among the three cyber bills considered by Parliament to protect the conduct of electronic transactions

3.2 Policies and Strategies under formulation by the Ministry of ICT

3.2.1 E-Waste Management Policy

This policy aims at enforcing several strategies for e-waste management. Establishment of e-waste management infrastructure, awareness and education, human resource development, resource mobilization are some of the key strategies encompassed by this policy document. The policy enforcement process will be through several stakeholder parastatals led by the Ministry of Information and Communication Technology then others such as Ministry of Trade Tourism and Industry, Ministry of Health, National Environment Management Authority, National Information Technology Authority-Uganda among many others, the private sector and other stakeholders.

Enforcement of this policy will enable sustainable e-waste management for a safe environment and a healthy nation.

3.2.2 Information Management Services Policy (IMS)

The IT industry worldwide is an ever changing and complex environment that requires effective management of IT services across all sectors on an ongoing basis. How well governments implement policies that enable information to be shared using ICT assistive technologies will determine successful economies. Uganda needs an IMS policy as a guideline and governance model to keep up with the standards of IT Service delivery and support in this ever changing IT industry.

It is the intention of the Government of Uganda to consolidate its efforts and focus its energies to harness the vast information resources to facilitate improved service delivery provision and ease of access to information by the citizenry hence the need for the IMS policy.

3.2.3 Top Country Code Domain Level Policy

It is recognized that although the Internet started in Uganda at around the same time as the mobile telephony market, growth in the former has been comparatively slower. Key constraints to the growth of the Internet market have been identified to include appropriate infrastructure, appropriate content, high costs and the management of the .ug.

This Policy shall establish a system of registration of Internet domain names that facilitates the proliferation of Internet in a country, since the number of registrations of Internet domain names in a country is also a measure of its popularity in the Internet space.

3.2.4 Government of Uganda Website Standards

This document provides the Government of Uganda Ministries and Departments guidelines and recommended best practice in the planning, design, evaluation and day-to-day maintenance of their web sites, in the context of the Uganda Government Website Standards

3.2.5 BPO strategy and Model for Uganda (2008-2011)

The strategy looks at the various categories of BPO services, Uganda's country profile and current initiatives put in place to support the industry. It provides information on lessons learnt from countries like India, Tunisia, South Africa and many more. This strategy also provides information on why companies outsource and provides information on opportunities for the BPO Industry in Uganda. The strategy proposes a conceptual model for the BPO Industry in Uganda clearly defining the inputs and expected outputs. It looks at the current strategies that are vital in the creation of an enabling environment and also proposes a governance model and also discusses the sustainability and risk mitigation strategies.

3.2.6 National ICT Policy

Development in Information and Communication Technology (ICT) have dramatically changed the way Information is collected, stored, processed disseminated and used, thus making it the most powerful tool for modernization and development.

The National ICT Policy focuses on following three areas:

- i. Information as a resource for development
- ii. Mechanisms for accessing information
- iii. ICT as an industry, including e-Business, Software development and manufacturing

The policy has stimulated more participation in the socio-economic, political and other developmental activities, which ultimately underpins sustainable National development and has led to improved standards of living for the majority of Ugandans.

3.2.7 National Information Security Strategy (NISS)

The ICT Sector has been overtaken by various security emerging issues such as;

- i. Increasingly Sophisticated Web Site Attacks that exploit Browser Vulnerabilities - especially on trusted Web Sites
- ii. Cyber espionage efforts by well-resourced organizations looking to extract large amounts of data - particularly using targeted phishing
- iii. Mobile phone and VOIP threats
- iv. Increasingly malicious spyware and;
- v. Web application security exploits among others

Therefore, there is a need to produce a comprehensive National Information Security Strategy that addresses the above emerging issues that are of paramount concern. Its main purpose will be to combat threats to information security. The NISS will provide a common platform for the information security efforts of the Government, businesses, Organizations' and individual citizens

The Strategy is intended to support sub-sector policies and frameworks of the different sub –sectors. This will help guide exchange of secure and timely information through the use of ICTs.

3.2.8 IPv6 transition Policy

The Internet has rapidly grown to become a fundamental infrastructure for economic and social activity around the world. The Current network deployments of the Internet Protocol (IP) are based upon Version 4 of the Internet Engineering Task Force (IETF) specifications. There is, however, a perceived need to migrate to a more advanced and newer version of the protocol, known as IPv6, in view of the technical limitations of IPv4.

However, progress in actual usage of IPv6 remains very slow to-date and considerable challenges must be overcome to achieve a successful transition. Immediate costs are associated with deployment of IPv6, whereas many benefits are long term and depend on a critical mass of actors adopting it.

This Policy will therefore provide for the following:

- i. The new (user) service opportunities and customer benefits that will result from adopting IPv6;
- ii. The operational benefits; technical, economic and social
- iii. Cost Effectiveness (i.e. potential reduction of future operating costs)
- iv. Minimizing industry-wide disruption during the transition (e.g. commercial risk, loss of market confidence).

3.2.9 Digital Broadcasting Migration Strategy

The Main technology being used in Uganda today in delivering Television (TV) broadcasting services is Analogue. However, international developments show that Analogue technology is being phased out in favor of Digital technology.

The development of this policy therefore, is in line with the International Telecommunications Union (ITU) 'Recommendations' of the Regional Radiocommunication Conference of 2006 (RRC06) and the subsequent Geneva 2006 Agreement (GE06) of which Uganda is a party.

GE06 resolved that all countries signatory to the agreement must migrate from Analogue to Digital broadcasting technologies by 2015. This process commonly referred to as Digital Migration involves converting the radio and

television broadcast signals from analogue to digital technology. This policy document however focuses on television broadcasting.

3.2.10 Telecom Policy

It has been established that Communication is a key factor in any development process. In light of the catalytic role that communication plays in National development, the Government of Uganda has set up a policy frame work to ensure optimum utilization of this resource towards social economic development.

The Telecommunications policy focuses on four areas:-

- i. The provision of a robust, cost-effective, broadband Telecommunications infrastructure country wide.
- ii. Promotion of public private partnerships in the development of telecommunications infrastructure and services.
- iii. Promotion of the utilization of telecommunications infrastructure and services by the public by making them affordable.
- iv. Establish E-Government to promote good governance and improve efficiency in public administration.

The policy recognizes that the developments in communication technology will see the convergence between voice, data, video and the media. Hence the emphasis on broadband communications highways across the country.

3.2.11 E-Government Framework Policy

The Government of Uganda has a strong belief that ICT has the potential not only to revolutionize the way government operates, but also to enhance the relationship between Government and Citizens (G2C), Government and Business community (G2B) and within Government to Government departments (G2G).

With this in mind, the GOU developed the e-Government framework which clearly identifies the goal of e-Government and spells out its core pillars, critical success factors and a roadmap which will be adopted to achieve it.

All government agencies have been encouraged to use this framework to further focus and inform their e-Government strategic plans as one of the facets to transform our country into a knowledge-based economy.

3.2.12 Policy for creating IT positions in public service structures for all MDAs and Local Government

Developments in Information and Communications Technology (ICT) have dramatically changed the way information is collected, stored, processed, disseminated and used, thus making it one of the most powerful tools for modernization and development.

In Uganda, ICT has been identified as one of the rapidly growing areas that have the potential to 'leap-frog' the nation to benefit from the globalized economy.

This policy aims at establishing IT personnel positions in the public service structures for all MDAs and Local Governments to provide Technical support in the provision of IT services within these entities.

3.2.13 Uganda Broadband Infrastructure strategy

Uganda was one of the first Eastern African countries to get connected to the internet with the first connection in 1995. Despite being introduced at about the same time that cellular telephones were introduced in the country, growth in the internet segment has been far from significant in comparison with growth in the mobile market.

This slow growth in internet is twofold from both the infrastructure end riddled with low capacity as well as a comparatively lower market demand for the internet.

This strategy therefore, provides options for enabling Uganda to access International Broadband Infrastructure networks at the earliest opportunity to fulfill its needs and developmental objectives, while not losing sight of issues related to cost, completion dates, ownership and capacities as well as taking into account the initiatives taken by the private sector leaders so far.