# 44 NEW VISION, Tuesday, October 8, 2019

# Govt pushes innovations, **BY APOLLO MUBIRU**

ne Ministry of Information and Communication Technology (ICT) has prioritised infrastructure development, innovation.

development of ICT parks and Business Process Outsourcing (BPO).

The ministry's mission is to increase access and usage of ICT infrastructure and services throughout the country, ensure effective communication of government policies and programmes as well as promotion of a national ideology for

socioeconomic transformation. As a result, it has registered a 76% reduction in the cost of Internet bandwidth to \$70 per Mbps from \$300 per Mbps.

Since the 2013/14 financial year, under the strategy for rationalisation of IT services across Government ministries, departments and agencies (MDAs), NITA-U is currently providing bulk Internet bandwidth to Government through the

National Data Transmission Backbone Infrastructure (NBI)

The provision of bulk Internet bandwidth through the National Data Transmission Backbone

Infrastructure (NBI) has seen the reduction of the cost from \$190 Mbps per month to \$70 per Mbps

NITA - U currently offers one of the lowest prices for Internet. The body intends to reduce this cost further, which will in turn lower the bandwidth prices across the country.

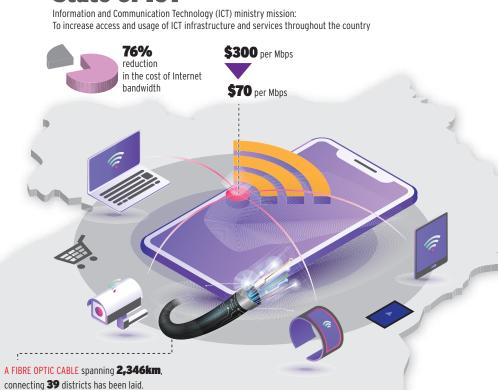
ICT minister Frank Tumwebaze said the Government's investment in

infrastructure development such as optic fibre and satellite is meant to make Internet a public good. A public good is a

commodity or service that is provided without profit to all members of a society, either by the government or by a private

individual or organisation. "If we cannot have accessible

and affordable Internet, we cannot talk about the digital inclusion. We want to use the Internet to



• The ICT sector employs more than **1.3 million** Ugandans.

reduce the cost of doing business, create new jobs, opportunities and to solve our problems for development," Tumwebaze recently told an Internet Summit in Kampala

## Future of broadband

He noted that telecoms had focused on voice calls little did they know that data would take over

Fibre-optic Internet is the future of broadband. It uses fiber-optic technology to reach the fastest

peeds available The number of innovation hubs that received grants today. Optical fibre is used by many telecommunications under the National ICT Initiatives Support Programe in 2017/18 companies to transmit telephone signals, Internet

> communication and cable television signals. Optic fibre is one of the common important tools in the Internet infrastructure and I thank telecommunication companies that are leading on this. The aovernment is coming in to complement the establishment of

The reduction in the cost of Internet bandwidth to \$70 per Mbps from \$300 per Mb

# AT THE NATIONAL DATA CENTRE

The National Data Centre is fully equipped with state-of-the-art technology and the functionalities: Multiple layers of hardened

- physical security. Closed-circuit television (CCTV)
- surveillance Instant SMS Alerts to predefined
- personnel Biometric access and code
- protected entry
  - Access to data centre only by
  - designated and authorised staff Fireproof door
  - Direct AC power 220 240V
- (Umeme)
  - Two generators one with 200KVA
  - backup and other 250KVA back up
- with two-day fuel
- Three UPS systems
- Fully redundant precision
- controlled air conditioned environment
- Monitoring of virtualised

infrastructure to host production site such as CPU, RAM and storage Provision of required platform to host production as well as sites

infrastructure to host production

site for applications and databases Provision of required

GRAPHICS BY BRIAN SSEKAMMATE

Dedicated virtual servers with required specifications Dedicated virtualised storage system for customer data Platform for customer requirements

Upgrade of 22 base stations in rural areas from 2G to 3G providing connectivity to over 1,000,000 Ugandans

ple surfing the Internet

# affordable Internet

this," the minister noted. In May 2017, Google and three other companies signed an agreement with government to invest in CSquared. Csquared is a broadband infrastructure company focused on building wholesale metro fibre-optic Internet networks and enabling Internet access in Africa.

Tumwebaze said like a revolution was started on safe water access to everybody, the same should be done for the Internet.

"These days we want to supply Internet to all people but when I was growing up, it was all about supplying water. This is the same when it comes to the Internet, it should be accessible to all people in Uganda and Africa," he said. The National Data Centre and

The National Data Centre and Disaster recovery site has been upgraded to a Tier 3 classification. It currently hosts 46 government applications.

This has greatly reduced the Government cost towards establishing separate data centres in the different ministries, departments and agencies.

#### Fibre optic cables

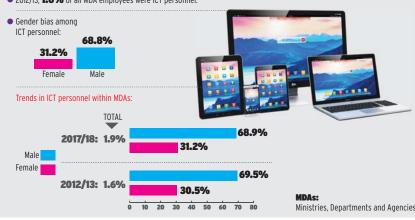
The ministry has laid a fibre optic cable spanning 2,346km connecting 39 districts. Government and NITA-U in 2012 launched the laying of the fibre optic cable network that links Uganda to the submarine cable on the East African coast and provide faster and cheaper Internet access.

Fibre optic cable can be used as a medium for telecommunication and computer networking because it is flexible.

It is especially advantageous for long-distance communications, because light propagates through the fibre with little attenuation compared to electrical cables. This allows long distances to be spanned with few repeaters.

# 98% Of MDAs and LGs have been supported in setting up and maintaining fully functional websites. 312 websites developed, 280 being provided hosting services at National Data Centre.

2019, Within MDAs, ICT personnel account for 1.9% of the total work force.
2012/13, 1.6% of all MDA employees were ICT personnel.



#### Connection to NBI A total of 420 ministries,

departments and agencies (MDAs) and Local Government (LGs) sites have been connected to the National Backbone Infrastructure (NBI).

Over 98% of MDAs and LGs have been supported in setting up and maintaining fully functional websites. A total of 312 websites have been developed and 280 are being provided hosting services at the National Data Centre.

Within MDAs, ICT personnel account for only 1.9% of the total workforce. This is a slight improvement compared to 2012/13, when 1.6% of all MDA

# ABOUT MINISTRY OF ICT

Ministry of ICT & National Guidance is composed of National Information Technology Authority- Uganda, Uganda Communications Commission, Uganda Post Limited, Uganda Institute of Information and Communications Technology, Uganda Broadcasting Corporation, Uganda Media Centre and the Media Council.

employees were ICT personnel. Given the Government's ambition to mainstream ICT in its operations and to leverage ICT to improve the efficiency and effectiveness of service delivery through use of e-government services, the proportion of ICT personnel is still very low. Other issues like the gender bias among ICT personnel (31.2% female vs. 68.8% male), as well as increased specialisation in key areas like IT security and user experience design, need to be urgently addressed through targeted efforts and programmes. A total of 1,000 new MDA/LG



Prime Minister Ruhakana Rugunda, Minister of ICT & National Guidance, Hon Frank Tumwebaze; State Minister Finance in-charge of Investments, Evelyne Anite and NITA-U ED James Saaka, pose for a picture with the various winners at the inaugural eGovernment Excellence Awards

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ICT minister Frank Tumwebaze

sites will be connected to NBI by end of next FY 2019/20.

A new NDP III pipeline project IT shared Platform (GovNet) which will extend connectivity to over 5,000 Government administrative units across the country will commence implementation in FY 2020/21.

Under the last mile project, NITA-U will extend connectivity to 20 Uganda People's Defence Forces sites in the FY2019/20.

#### Rural stations

Upgrade of 22 base stations in rural areas from 2G to 3G providing connectivity to over 1,000,000 Ugandans. Over 1,047 School ICT labs will be equipped.

Selected Post Offices of Kitgum, Kasese, Mubende and Moroto and public libraries have been converted into ICT access centres for eGovt Services.

Uganda Communications Commission (UCC) through its Rural Communications Development Fund (RCDF) said the one-stop community centres provide information for citizens on public services.

The facilities are equipped with desktop computers connected to Internet in a well-partitioned arrangement. The public information centres have capacity to serve 60 people a day.

The services, which are entirely free, aim to respond to any citizen query and to encourage them to uptake online government services including URA returns, e-payments, e-health and eeducation, among others.

The Uganda Institute of ICT Master Plan developed and refurbished institute infrastructure. It also established and equipped digital labs.

#### Key achievements

The approval of the National Broadband Policy 2018, Enactment of the Data Protection & Privacy Act 2019 and Development of the Digital Uganda Vision.

Continued on page 46



Of MDAs and LGs have been supported in setting up and maintaining websites

The number of people public information centres serves per day



# ICT sector employs over 1.3 million Ugandans

From page 45

ver 15 critical ICT Laws, policies and strategies have been developed, passed and are being implemented to ensure

a harmonised and well-regulated ICT sector

They are: Data Protection and Privacy Law 2019, Uganda Communications Act 2013, Electronic transactions Act 2011, Electronic signatures Act 2011, Computer Misuse Act 2011 and National Information Technology Act 2009

Policies include National Broadband Policy 2018, Uganda National ICT Policy 2014, E-Government framework Policy 2010 and three strategies

The Uganda National ICT Policy 2014 is aimed at supporting the realisation of the national vision. Its objectives are:

Build a knowledge-based human capital

Promote innovation in economic and social systems

 Expand ICT infrastructure and its integration throughout the country

Deepen utilisation of ICT services by government, private sector,

Non-Government Organisations and citizenrv

Enhance research and innovation in ICT products, applications, and

services Improve ICT governance and environment in Uganda

The e-Government framework policy is a legal and regulatory Framework meant to provide the requisite environment for the e-Government service delivery between government, citizens, business and non-citizens.

## Innovations

Five innovation hubs have received grants under the National ICT Initiatives Support Programme (NIISP) in FY 2017/18. The initiative is derived from

Uganda's Vision 2040, which envisages ICT as key among the drivers of inclusive economic growth and modernisation. NIISP aims 3 at creating a sustainable ecosystem for ICT innovations and support ICT innovators and

developers in Uganda, A total of 60 innovators in June shared sh6b startup.

The programme looks at tackling bottlenecks to creating a digital ecosystem by promoting the development and deployment

Start-up shared among 60 innovators in June



people access reliable Internet at a

Bandwidth to eight other innovation

hubs to be provided under the last mile project in FY 2019/20. The ICT Innovation and

Incubation Hub at Nakawa will act as a mentoring and coaching centre for SMEs. The government is in the

process of establishing of an ICT park. Land for the IT/BPO Park secured in Entebbe, feasibility study for the project completed and project submitted to the PPP Unit for registration.

BPO Centre established at Statistics House and incentives extended to BPOs with over 5,000 employment opportunities created cumulatively through the BPO Centre and BPO companies.

ICT sector tax revenue collection in 2015

# **CONTRIBUTION TO** ECONOMY

GRAPHICS BY BRIAN SSEKAMMATE

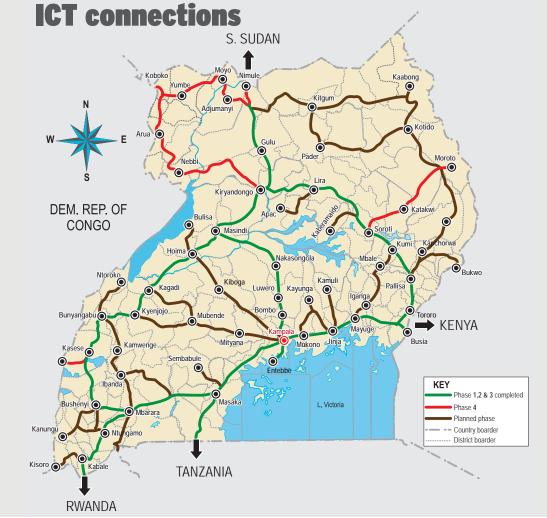
The sector employs more than 1.3 million Ugandans. The contribution of ICT sector activities to the national GDP accounted for 9.8% in FY2017/18 compared to 9.6% in FY2016/17 while its contribution to Government revenue totalled sh946.4b (6.5%) of total Gross Revenue collection in FY2017/18.

ICT sector has steadily been growing average 19.7% annual growth employing over 1.3 million Ugandans and sh484.4b in tax revenue collection in 2015.

The mobile phone market grew to approximately 23 million people in 2015 representing a penetration rate of 54.9%.



Female ICT personnel in ministries, departments and agencies



#### Government, companies and individuals to innovate and reach new markets.

of applications to create an

open ecosystem in Uganda

Subsidised Internet

bandwidth provided to five Business Process

Outsourcing (BPO)/

innovation companies

i.e. Cameo Tech, Techno

brain, Munu Tech, BDE

that shall enable the

consults and Cayman Consults. This will help more

low cost

Districts connected by a 2,346km fibre optic cable