

The Regional Communication Infrastructure Program (RCIP): Powering economic development through affordable Internet and e-Government

The stories of Firsts are important to the world. They remind us that anything is possible if we dream bigger, work harder and sometimes work smarter. The story of the Regional Communications Project in Uganda, to enhance internet connectivity and service delivery is one that boasts of notable firsts. The Project is being implemented by the Government of Uganda through the National Information Technology Authority, Uganda.

Under RCIP, In July 2019, Uganda opened its doors to the first Tier 3 cloud data center with a capacity to host all Government applications. In the same year, for the first time in Uganda, an underwater internet fiber cable crossed the River Nile, bringing connectivity to Adjumani and Moyo districts. The crossing done beneath the Nile had once been deemed impossible by the ICT Industry in Uganda.

RCIP aims to increase access to high speed internet thus making internet supplied services faster, available and affordable to Ugandans. By improving the communications infrastructure and promoting the efficiency and transparency of the Government through eGovernment, RCIP is in line with the Government of Uganda's Vision 2040 and National Development Plans.

The project aims to achieve its objectives through creating an enabling environment for ICT growth by providing the essential legal framework and security, through building ICT infrastructure and through projects that promote e-government growth.

The beneficiaries

Each project under RCIP boasts of significant impact to the lives of Ugandans. Citizens and businesses are benefiting through more affordable and accessible telecommunications services and enhanced public service delivery. The project had about 5,700,000 beneficiaries in the financial year 2019-2020 with 46% being female. The project is being run with compliance to the World Bank Group, Environmental, Health, and Safety Guidelines.



Reduction in the Cost of internet

RCIP is increasing access to high speed internet thus making internet supplied services faster, available and affordable by Ugandans. In December 2016, using funds from the World Bank under (RCIP), NITA-U negotiated and procured bulk Internet bandwidth which saw a reduction of cost from USD 300 to USD 70 per mbps saving the government more than 5-billion-shillings annually. This pricing is 56% cheaper when benchmarked against regional pricing which is USD 158 per mbps on average. This drop in prices to government also precipitated a momentous drop in market prices.

West Nile and Eastern Uganda connected

Through improving the communications infrastructure, the project aims to promote the efficiency and transparency of the Government through eGovernment. (NITA-U) successfully completed the implementation of three phases of the National Backbone Infrastructure (NBI) project to connect all major towns across the country including Government Ministries, Departments and Agencies via an optical fiber cable but there was still a need to connect the unconnected.



Figure 1 President Museveni launches connectivity in Karamoja

Under RCIP, the Missing Links Project extended the ICT backbone to West Nile and eastern region districts including Pakwach, Nebbi, Arua, Yumbe, Koboko and Adjumani, Katakwi and Moroto plus the boarder points of Oraba, Vurra and Mpondwe.

Uganda is now a fully-fledged communications hub with the seven major border posts of Uganda with its neighboring countries all connected to the NBI further strengthening regional ties. This has facilitated regional integration, cooperation, communication, and trade with neighboring countries.

With phase IV complete, the NBI has been extended to **609** government offices including district local government sites, hospitals, universities and training institutions.

The NBI is not only a self-sustaining project, it generates income for the government, generating 29 billion in the year 2019 alone.

The last Mile Project

Under the RCIP project, through a project dubbed the Last Mile the NBI will achieve its full potential through connecting end users across the country to the NBI in order for them to access to high quality, low cost internet. The Last Mile project has commenced and will expand the coverage of the NBI through the laying of approximately **732km** of fiber optic cable and connecting an additional 700 sites to the NBI.

At the end of the Project, the cumulative span of the NBI shall be over 3,156km across 52 Districts and connecting over 1,300 Government Offices and Target User Groups. As of today a total of 519 out of the 700 sites have been connected.

Cloud based National Data center

Digitization which is at the core of the RCIP obviously creates data. That data needs to be stored and secured efficiently. As opposed to international data hosting which was the norm, the government of Uganda through RCIP set up the first Tier 3 data centre in Uganda to provide centralized Data Centre hosting services.



Launch of the National Cloud Data Centre by H.E Yoweri Kaguta Museveni

This data centre has the ability to host all Government data as opposed to each entity hosting its own data which is an expensive and insecure way to go. With this data centre, all the operational costs including power, cooling, security, maintenance and license costs are centralized. This center has led to annual savings to Government of up UGX. 10Billion annually in costs that's individual agencies would have used to build and maintain their own data centers.

To date, there are over (160) critical e-Governments systems and applications being hosted in this Government facility.

eGovernment for efficiency and transparency

Epayment Gateway

NITA-Uganda under the RCIP set up the Payment Gateway to enable online payments for all Government services; and as well be utilized by interested private

sector business enterprises to receive payments for their supplies, in a bid to promote e-Commerce and financial inclusion in Uganda.

Recently for example, the Office of the Prime Minister unveiled a citizen fundraising platform developed by NITA-U aimed at mobilizing resources and funds to boost the coronavirus fight in the country using this very SMS gateway.

Unified Messaging and Collaboration system (UMCS)

Under the RCIP project, NITA-U has implemented a Unified Messaging and Collaboration system (UMCS) in MDAs and Local Governments (LGs) to improve communication and service delivery within Government. There is no longer need to have several isolated applications to handle tasks like mail, instant messaging, intranet or HR needs. UMCS offers a solution to Communicate with All Stakeholders Instantly. It has now been Rolled out in over 68 entities.

SMS Gateway

NITA-U provides subsidized SMS services which public entities are utilizing to provide USSD services, Bulk SMS notifications among others. Creating an Enabling environment for ICT growth. Over 2,000,000 unique SMSs have been shared by May-2020

Systems Integration

NITA-U is integrating all MDA systems so that data can seamlessly be shared across Government systems in a rational, secure, efficient and sustainable manner in order to improve service delivery to citizens as well as reporting, planning and decision making in Government. Assessment of integration needs of MDAS as well as data collection has been completed as well as User Acceptance Tests.

eGovernment Procurement system

The eGovernment procurement system (eGP) is an initiative of government to leverage ICT to promote efficiency, transparency and accountability in public procurement. Initiated under the RCIP project, eGP is a web-based system that will support the full public procurement lifecycle. eGP is being piloted in Ten (10) Entities (PDEs).

Enhancement National CERT/CC

A National Computer Emergency Response Team / Coordination Centre (National CERT/CC) was established (www.cert.ug) as an organization devoted to ensuring that appropriate technology and systems management practices are used to resist attacks on networked systems and to limit damage while ensuring continuity of critical services in spite of successful attacks, accidents, or failures. Through RCIP the CERT has been enhanced through set up of a Security Operations Centre

The Security Operations Centre provides physical and automated monitoring of Government Systems, Applications and Networks to enable proactive management of vulnerabilities and threats. For more information, please visit:
<https://www.cert.ug>

Gap analysis of the policy, legal and regulatory framework for ICT sector

Government of Uganda is conscious of the fact that for ICT to flourish, and to deliver on its promise of economic and social development, a seamless enabling legal and regulatory environment is key.

Therefore, NITA-Uganda through the Ministry of ICT & National Guidance has carried out a gap analysis of the policy, legal and regulatory frameworks of Uganda's ICT sector in order to identify any policy, legal and regulatory hindrances towards the objectives of the RCIP.