



THE REPUBLIC OF UGANDA



MAKERERE UNIVERSITY

PILOTING A RURAL BROADBAND CONNECTIVITY MODEL

Project Summary

1. Background

Uganda has registered increased Internet penetration largely driven by a growth in mobile internet subscription and increased demand for broadband services. This growth has enhanced the need to address potential constraints including access to affordable Internet services. In addition, some communities in Uganda remain underserved, lacking access to affordable Internet, access devices, and technical knowledge to benefit from any available Internet. This project sought to design and deploy a model rural community

broadband network (RCBN) in Apac District. Given previous experience, the model was to be underpinned by strong partnership with members of the beneficiary communities. The project was funded by the Government of Uganda through the Makerere University Research and Innovation Fund (Mak-RIF).

The main objective of the RCBN project was to pilot a model for rural broadband connectivity in support of a knowledge-based economy with a focus on the agriculture and education sectors. The RCBN framework will guide provision of affordable broadband connectivity in line with the National Broadband Policy and

in support of strengthening Uganda's Science, Technology, and Innovation (STI) capabilities and performance. In addition, the project sought to explore appropriate applications in partnership with local government leadership, civil society, and innovators to take advantage of the broadband network. In particular, the project targeted applications or services addressing service delivery, agriculture groups, and women and youth groups. For this reason, potential deployment locations were based on the presence of an active partner in the community already addressing a socio-economic issue.

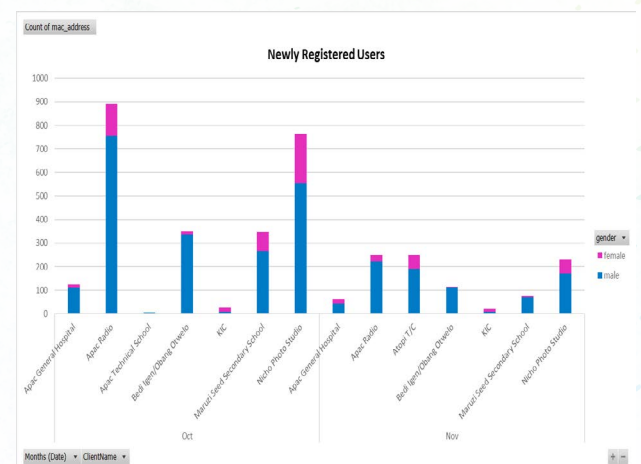
2. Network Partners

The network is currently comprised of 12 partners connected to the Internet, with one of the partners being the hub for connectivity to the other 11 sites.

#	Site Name	Description	Latitude	Longitude
1	Apac Radio (Hub)	Radio	1.983308	32.5326
2	District Headquarters	Government Office	1.983268	32.52873
3	Apac General Hospital	Hospital	1.97935	32.53385
4	Nicho Photo Studio	ICTs	1.986629	32.53466
5	Atopi Primary School	Education	1.974766	32.48863
6	Apac Secondary School	Education	2.025264	32.52729
7	Apac Technical School	Education	1.981352	32.56673
8	Maruzi Seed Secondary School	Education	1.963171	32.52825
9	St. Albert Technical School	Education	1.94712	32.53489
10	Bedi Igen Women's Group	Farmers Group	2.031608	32.46412
11	Kubere Information Center	NGO	1.989997	32.532383
12	Atopi Trading Center	Market Community	1.972964	32.483775

3. Site Data Collected

Details of new users are captured and categorized according to several parameters, including age and gender. In addition, traffic statistics are captured to identify total network traffic as well as individual data rates experienced by users. This graph shows the new users categorized according to their gender.



For more information on the project and its successes so far, read this blog post¹ by one of the beneficiary members of the community.

¹ <https://www.radiocomnetu.org/radioapac/2023/03/26/makerere-university-mounts-equipment-to-support-internet-connectivity-in-apac/>