



Case Study

Uganda Refugee Connectivity Project, West Nile Region, Uganda



Key Facts

Uganda

Population: 31.5 million

GDP (per capita): US\$300

Mobile penetration: 22%

Internet penetration: 6.4%

Broadband penetration: <1%

Moyo and Adjumani Refugee Settlements

Refugee Population: 30,000

Estimated average income per household per day: US\$1

School teacher income: US\$120/month

“The project is intended not only to deliver the provision of affordable voice and data services to refugees in Northern Uganda, but also to create the foundation and building blocks for an initiative that can be replicated in refugee communities around the world.” **Noel Meier**, CEO, MTN Uganda

Background: Clinton Global Initiative

The Clinton Global Initiative (CGI) is a non-partisan catalyst for action that brings together a community of global leaders from various backgrounds to devise and implement innovative solutions to some of the world’s most pressing challenges. All CGI members are asked to define and pursue a commitment that involves a new, specific, and measurable approach to a global challenge. Since 2005, CGI members have made nearly 1,000 commitments valued at upwards of \$30 billion to impact more than 200 million lives in over 150 countries.

The Development Fund’s CGI Commitment: Refugee Connectivity in Uganda

In 2007 the GSMA Development Fund made a CGI commitment with Ericsson, the United Nations High Commissioner for Refugees (UNHCR), and MTN Uganda to deliver the Uganda Refugee Connectivity Project. The primary objective of the project is to demonstrate how to provide affordable, sustainable access to mobile phone and Internet services in refugee settlements in support of education, economic empowerment, healthcare, family reunification and other urgent refugee concerns.

"I commend the work of this partnership to bring much needed mobile communications to refugee settlements. The UNHCR's primary purpose is to protect the rights and well-being of refugees, and connectivity not only allows refugees to connect with families and communities at home, but it also enables entrepreneurialism, drives education and provides opportunity and hope for the future." **António Guterres**, United Nations High Commissioner for Refugees

The Challenge: Lack of Access to Affordable Voice and Data Services

Mobile connectivity continues to grow at a phenomenal rate. Today there are over 3.3 billion GSM connections worldwide and over 1.2 million new GSM connections every day (source: Wireless Intelligence). There is however one marginalised group of people with limited or no access to communications – refugees and internally displaced people (IDP) in the developing world.

According to the UNHCR there are currently 9.8 million refugees and as many as 23.7 million internally displaced people worldwide. This means over 32 million people are living in refugee camps or settlements, with little or no access to communications and the benefits mobile communications can bring.

Mobile connectivity, and Information and Communications Technology (ICT) in general, are an important component of social and economic development. Mobile phones provide links to family, increase mobility and provide market information for farmers and entrepreneurs. The Internet delivers vital access for family reunification, and provides knowledge and information to schools and medical facilities. Mobile phone and Internet services can create new sources of income and employment for refugee populations and provide a tool to enable refugees to become self-sustainable.

Some refugee settlements have access to the mobile network, while others such as the Moyo and Adjumani settlements in Uganda have little or no access. However, even in cases where mobile network coverage is available, most refugees cannot afford personal devices and therefore cannot connect to the network to benefit from valuable information and communications services.

The Solution: Community Phones and Internet

The GSMA Development Fund, in partnership with Ericsson, MTN Uganda, and the UNHCR initially focused on delivering the Uganda Refugee Connectivity Project to settlements in Moyo and Adjumani districts in the West Nile Region of Northern Uganda, near the border with Sudan.

The project focused on creating small business entrepreneurs through the delivery of Community Phones and Internet. Community Phones involves providing shared GSM telecommunication devices that are managed by local entrepreneurs who charge a fee for use of the phone. Community Internet uses enhanced GSM networks to bring Internet access to computers in fixed booths, also run by local entrepreneurs.

By enabling entrepreneurs to offer GSM mobile phone and Internet services to the 30,000 refugees of Moyo and Adjumani, local, sustainable businesses are being created, providing a platform for economic growth that can greatly help to reduce poverty.



"Our commitment to the Refugee Connectivity Pilot is in line with our vision to be the prime driver in an all-communicating world. It will allow us to apply our core technology to connect some of those in greatest need, and we hope that mobile connectivity will also stimulate local business development in the area." **Carl-Henric Svanberg**, CEO, Ericsson

In order to provide adequate coverage for phone and Internet services, Ericsson together with MTN constructed two new base stations and upgraded the network to EDGE (Enhanced Data for GSM Evolution). The GSMA Development Fund provided project expertise and project management and worked closely with the UNHCR to implement the project.

The pilot launched in September 2008 with 40 Community Phone entrepreneurs and two Community Internet entrepreneurs managing the new services.

Technical Solution Details

The computer centres are in off-grid locations, therefore, after a diligent period of hardware tests, the following equipment was selected to provide lower power consumption and solar charging capabilities. An Ericsson Village Solar Charger was also provided to enable a mobile phone charging service.



Community Phones	Investment	Price to Customers
Avvio G201 mobile desktop phone	US\$49 (80,000 Ush) per unit This investment has been made by entrepreneurs	US\$0.12 (200 Ush) per unit (40 seconds)
32kb SIM card running the SharedPhone application software		
US\$6.20 (10,000 Ush) of airtime		
35 amps battery		
Phone battery adapter		

Community Internet	Investment	Price to Customers
500W PV Power System	US\$18,500 per centre This investment has been shared among project partners and the entrepreneur	US\$0.45 (750 Ush) per 15 minutes
4 Inveneo PCs		
1 HP all-in-one printer, scanner, photocopier		
1 Ericsson Village Solar Charger		
2 Ericsson W21 Fixed Wireless Terminals		
1 EDGE-enabled SIM card		
2 spare ink cartridges		
25 CD/DVDs		
1 router		
3 plastic computer moulds		
Painting and marketing of centre		

"Mobile networks are the only economically viable way to connect refugee camps to the outside world and provide their inhabitants with the means to communicate with their relatives, access health information, run a business and, above all, educate their children."

Robert G. Conway, Chief Executive Officer and Member of the Board, GSMA

Results: Monitoring Activities Following Launch to Determine Sustainability and Economic Impact

The pilot launched with the following base business case targets, which are very conservative and confirm the sustainability of the initiative. Revenues are expected to increase further as the project is expanded and the services become more engrained in the local and refugee communities.

Base Business Case Targets

Community Phones
Average calls per day: 7
Average call duration: 40 seconds
Average profit per day: US\$0.30

Community Internet
Average Internet usage per day: 2 hours
Number of phones charged per day: 15
Number of photocopies per day: 10
Number of computer students per day: 1
Average profit per day: US\$1.20

Community Phones and Community Internet have already proven to be successful and sustainable initiatives in many non-refugee rural villages. In order to determine the sustainability and economic impact of the pilot in a refugee setting, traffic data including the number of calls and average call duration will be monitored, as well as Internet data usage, the number of handsets being charged per day, and other services such as photocopying, printing and CD burning.

Once the pilot has proven to be a sustainable concept it will be expanded to other regions with enhanced product and service offerings, with a particular emphasis on education and health.

It is expected that the pilot will highlight the need for increased connectivity and mobile-based value adding services such as banking, health, agriculture and educational information, which will drive additional usage of the services and further benefit the social and economic development of refugees in settlements like Moyo and Adjumani.

The GSMA Development Fund

The Development Fund is a core part of the GSMA, the operator-led trade association representing the mobile industry. We work with mobile operators to accelerate mobile solutions for people living under \$2 per day, bringing socio-economic benefits to individuals and communities. We do this by catalysing innovation, driving market scaling, and increasing knowledge networking in our three areas of focus: Connectivity, Energy and mServices.

To date the GSMA Development Fund has delivered 26 projects in 14 countries with 21 operators, benefiting the lives of over 150,000 people directly and 1 million indirectly.



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