ADDRESSING LAST MILE CONNECTIVITY

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@ INTERNET GOVERNANCE FORUM

BICC ON 31ST MAY 2022

THE USF

- Establishment and Mandate
- Duties and functions of the Authority
- The USF Committee
- Functions of the Committee
- Financing
- Project consideration by the Authority

Establishment and Mandate

- Established as provided for by the Communications Act (2016), Section 157

Functions:

- **Offer subsidies** on a competitive basis to licensees in order to provide them with incentives to provide universal access in areas that are not economically viable or that are marginally viable without subsidies;
- Provide other financial incentives and assistance;
- Meet administrative expenses associated with the execution of the duties, functions and responsibilities of the Universal Service Fund Committee, the management of the Universal Service Fund, publication and independent audit costs of annual reports of the Fund, and the staff costs for the implementation of the Fund, which shall not exceed a certain amount, as determined in regulations made under this Act; and
- Conduct research and consultancy assignments related to universal access.

Duties and functions of the Authority

- to define the expected components of universal services and the remote areas that are un-served or under-served areas and communities;
- to set out the operations to be undertaken to ensure universal services;
- to propose annual and multi-annual universal access programmes and budgets, as well as activity, plans to be submitted to the Universal Service Fund Committee;
- to define, plan and co-ordinate the implementation and monitoring of the universal access and universal service;
- to designate one or more licensees to be in charge of the universal service or components of the universal service; and
- to ensure that the provision of universal services is made on affordable tariffs that are accessible to all

The USF Committee

- Members of the Universal Service Fund Committee shall hold office for a period of three years and shall be eligible for re-appointment to one more term.

The Committee is established by the Authority (Section 159 of the A

It is composed of:

- one member nominated by each of the communications service sectors;
- one member nominated by the consumer protection organizatio
- the Director-General of the Authority; and
- One representative from the government, as identified by the Minister.

How is the Fund financed?

(a) To review all proposed annual and multi-annual universal access programmes and budgets, as well as activity plans submitted by the Authority; and

(b) provide written comments and specific recommendations for improving the proposed annual and multi-annual universal access programmes and budgets, and the activity plans

How is the Fund financed?

- Operators' levy as prescribed in the licensee, which shall be set by the Authority and reviewed from time to time;
- Moneys appropriated by government of Malawi through Parliament;
- Grants, subsidies, donations, gifts and subscriptions from government or any other person;
- Competitive minimum subsidy auctions;
- Public access projects designed to generate income for long-term financial self-sustainability; and
- Funds made available by the Authority

THE LAST MILE

Component name	Also known as	Brief description	Typical distances	Common infrastructure technologies
International cross-border traffic	International bandwidth	Connects countries to other countries and the world	Thousands of km	Fibre-optic cables (undersea and terrestrial), satellite
International transit traffic	Transit	Applies to traffic crossing countries to land-locked countries, adding to international bandwidth costs	Hundreds to thousands of km	Fibre-optic cables (undersea and terrestrial), satellite
National backbone network	Core	Connects major network servers and data centres (PoPs) within a country	Hundreds to thousands of km	Fibre-optic cables (terrestrial and some undersea), satellite
Middle-mile network	Backhaul	Connects core network to regional PoPs	Tens to hundreds of km	Fibre, microwave, satellite
Last-mile network	Access	Reaches end users with connectivity from regional PoPs	Tens of km	Wireless (cellular: 2G, 3G, 4G, 5G, fixed wireless access, Wi-Fi, satellite, etc.); wired (fibre, copper, coax, etc.)

Source: ITU - The Last-mile Internet Connectivity Solutions Guide

June 2019 summary report, they wrote:

"We recommend that by 2030, every adult should have affordable access to digital networks, as well as digitally-enabled financial and health services, as a means to make a substantial contribution to achieving the SDGs."

Source: The age of digital interdependence –
the United Nations Secretary General's High-Level Panel on Digital Cooperation5

Similarly, a report released by the New European Union-African Union Digital Economy Task Force in June 2019 identified its first goal as follows:

"1. Accelerate universal access to affordable broadband"; and a 2018 report by the Pathways for Prosperity Commission on extending universal access focused on meaningful connectivity

Source: Pathways for Prosperity Commission, Digital Lives. Meaningful Connections for the Next 3 Billion (2018).

THE LAST MILE

There are four overarching reasons why billions of people remain offline:

1. Lack of Network Infrastructure availability

3. Lack of perceived relevance

2. Lack of affordable internet service

4. Gaps in skills and ability

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IT IS ESTIMATED THAT .....

- Up to 750 million people worldwide live in areas where there is a “coverage gap”, i.e. no signal from any mobile broadband network (at least 3G)

- A further 3.28 billion people are in the “usage gap”, i.e. they live in an area covered by a mobile broadband network but are not using the mobile Internet, for reasons related to affordability (of service and devices), relevance, and user skills.

According to GSMA (the association of network operators)

ICT ACCESS MARKET REPORT - 2019

433 TAs	18Million people	Market Demand
233 TAs without mobile coverage	2 Million without Mobile coverage	2 Million without Mobile coverage

ADDRESSING THE LAST MILE

ICT development and Innovation

Promote e-education

Connect a school project – 250 by 2027

Connect 10 TTCs to internet by 2027

Connect at least 25 institutions with PWD to internet

Enhance broadband coverage

Support atleast 28 community-based ISPs by 2027

Facilitate construction of 76 towers by 2027

Specific targeting of potential investors to open device assembly points – 3 by 2027

Digital Skills for educators & learners

Promote e-health

Provide broadband services to 33 public hospistals by 2027

Support hard to reach health institutions with alternate power

Promote e-commerce

Promote digital skills for rural SMEs in different communities by 2027

Develop e-commerce platform

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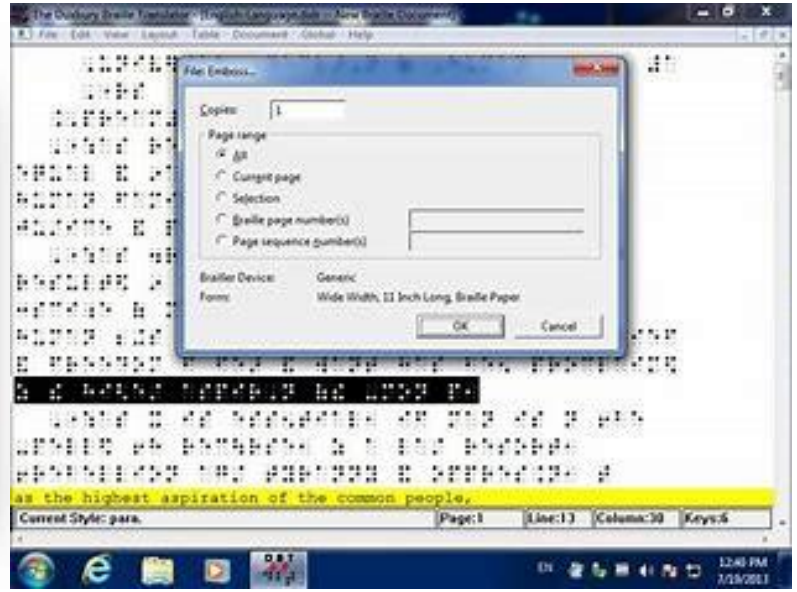
Lack of Network Infrastructure availability:

- Community Broadband operators
- Installation of mobile network towers

Promote e-education

- Connecting Schools
- Public institutions (Post Offices, Government Offices etc)
- Teachers Technical Colleges, and
- Institutions for People with Disabilities to internet



COMMUNITY NETWORKS

Community Networks can gain access to spectrum, including the use of unlicensed spectrum, sharing licensed spectrum, and innovative licensing.

- Call for EOIs was done
- Request for proposals
- Design of Community Broadband Framework
- Engagement of CNs

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BOSCO Uganda, connecting communities through solar | KICTANet Think Tank

ADDRESSING THE LAST MILE

Gaps in skills and ability

Around **15 per cent of the world's population**, or an estimated one billion people are persons with disabilities.[1]

According to the 2018 Disability & Development Report[2] from the UN, "persons with disabilities are at a disadvantage regarding most Sustainable Development Goals", and "concrete action is needed to include the world's one billion persons with disabilities, as both agents and beneficiaries of development".

Barriers to inclusion and participation are exacerbated by the lack of access to affordable, relevant assistive technology. **Only one in 10 people** have access to the assistive technology they need to live independent and autonomous lives.

Digital accessibility is recognised as a key priority in several global commitments, including the Convention on the Rights of Persons with Disabilities (CRPD), the Sustainable Development Goals (SDG) and the UN Disability Inclusion Strategy, with the core aim to ensure "no one is left behind" in our increasingly digital world.

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Lack of Affordable Internet:

What value is the derived from a digital service?

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Gaps in skills and ability

Img Source – teenzglobal.org

Recommendations from GSMA on digital inclusion:

- Conduct consumer insights research to better understand the requirements, circumstances and views of persons with disabilities and the barriers limiting their access to and use of the mobile-enabled products and services
- Explore the attitudinal and social barriers, such as stigma and discrimination, faced by persons with disabilities in addition to the physical or technological barriers
- Consult, involve and listen to persons with disabilities in the development and iteration of products and services, in line with the mantra "nothing about us without us"
- Consult with those who understand the experiences, requirements and barriers of persons with disabilities in the market (e.g. Disabled Peoples' Organisations (DPOs), relevant customer facing employees)

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Fleet Manager

ADDRESSING THE LAST MILE

National Addressing System

- Increased revenue to Government through tax collection
- Effective response to emergency situations by Fire, Police and ambulance services
- Provision of verifiable proof of residence
- Effective identification and control of disease outbreaks

Broadcasting services

Broadcasting services

Receiver Subsidies

Decoder Subsidies

Grants for content development

"None of us, including me, ever do great things. But we can all do small things, with great love, and together we can do something wonderful”

Mother Teresa

Zikomo