Internet Society

Contribution for the Joint ATU/ITU Regional Preparatory Meeting for WTDC-21on Community Networks

Title: Expanding Internet access to remote and rural areas

Agenda item:

Item xx

Summary:

Community Networks provide Internet access in unserved and underserved communities. The digital divide risks depriving a generation the opportunity to develop their potential and their ability to uplift their entire communities economically and socially. Furthermore, it undermines the progress that has been made towards achieving the 2030 U.N. Sustainable Development Goals. Community Networks are a complementary connectivity solution for hard to connect areas particularly in Africa.

Expected results:

RPM-AFR is invited to note this document.

References:

n/a

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The Internet Society (ISOC), an Associate member of the African Telecommunications Union (ATU), is pleased to submit this contribution to the Joint ATU/ITU Regional Preparatory Meeting for WTDC-21. The Internet Society believes that the Internet creates opportunities for socio-economic growth and development, and enables innovation, and should be available to anyone that wants to have access. We are committed to collaborating with ATU members in order to achieve our shared vision of more expansive growth and development of the Internet across the region

This contribution on Community Networks (CNs) highlights priority issues for ATU members that the Internet Society is addressing in the Africa region. We hope it will help enrich the discussions on the thematic priorities and Regional Initiatives on Connectivity and Enabling Environment for the International Telecommunication Union (ITU) Development Sector (ITU-D) and the World Telecommunication Development Conference 2021 (WTDC-21).

The Internet Society would like to commend ATU members for emphasizing the importance of expanding the accessibility, affordability and reliability of broadband infrastructure with the aim to achieve the United Nation's Sustainable Development Goals (SDGs) and bridge digital divides. Further, we compliment ATU members for renewed emphasis in support of broadband infrastructure development in the region.

During the global COVID–19 health pandemic, studies have shown that Africa's digital[1] divide is widening and broadband growth has generally been slow. Moreover, the gender digital divide is proving difficult to overcome, and there is also an urban-rural digital divide.[2] Those without broadband access are usually in underserved remote and rural areas. After more than 25 years of Internet development, network infrastructures built and operated on traditional business models have not yet reached many underserved, remote and hard to reach rural areas.

The Internet Society has been supporting the development of community-powered networks based on innovative and sustainable resource models, as one of the solutions to close the digital divide. These networks, often known as Community Networks, provide Internet access in unserved and underserved communities. The digital divide risks depriving a generation the opportunity to develop their potential and their ability to uplift their entire communities economically and socially. Furthermore, it undermines the progress that has been made towards achieving the 2030 U.N. Sustainable Development Goals. Community Networks are a complementary connectivity solution for hard to connect areas particularly in Africa.

Our experiences show that CNs are naturally complementary to existing networks. However, their development faces a myriad of challenges: lack of affordable access to backbone infrastructure, barriers to entry (e.g., business and/or service licensing, regulatory fees and taxes, access to spectrum), and limited funding, including difficulty in obtaining universal service funding, among others. It is important that we approach these challenges holistically. Therefore, we urge policymakers and regulators to consider the benefits of Community Networks, and to reduce or eliminate barriers to allow CNs to develop.

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[1] https://www.africaportal.org/features/covid-19-implications-of-the-pandemic-for-the-digital-divide-in-africa/

[2] https://blogs.unicef.org/evidence-for-action/covid-19-and-education-the-digital-gender-divide-among-adolescents-in-sub-saharan-africa/

Community Networks are a complementary way of connecting the unconnected, particularly rural and remote areas

The COVID-19 health pandemic has emphasised the 'digital divide' which is even more pronounced on the African continent. Efforts to address the gap have included the adoption of a **'Digital Transformation Strategy'** by the African Union in May 2020, which aims to 'erase the digital divide' and 'narrow the gender digital divide'. To achieve this, a multi-stakeholder approach is essential to foster public-private collaboration and partnerships between African governments, the ICT corporate Sector, the AU and development partners, to accelerate investment in ICT infrastructure and expand affordable and reliable broadband access.

Community Networks can help achieve this strategy by:

- becoming an important element of expanding access to remote and rural places where traditional networks would hesitate to operate/invest primarily due to zero business case;

- demonstrating the ability of community networks to dynamically response during unforeseen events such as the COVID-19 pandemic;

- promoting partnerships between local communities, providers, governments, academia, and civil society. CNs help indeed to ensure an inclusive Internet that connects and can be afforded by everyone;

- serving as a means for community members to create, discuss and exchange information that is of interest to them, hence not only contributing to universal access but also innovation and digital content creation.

Fostering an Enabling Environment for Complementary Connectivity Solutions

Bridging the digital gap requires proactive steps and a commitment to achieve a shared goal of connecting the unconnected. To enable CN's as a solution requires:

1. **Opening up** access to and eligibility for funding mechanisms such as Universal Service Funds for Community Networks;

2. **Creating** innovative and appropriate licensing and authorization frameworks that are affordable and easy to understand for small-scale community operators; and

3. **Adopting** innovative spectrum licensing frameworks to create opportunities to access unused spectrum.[3]

   For more detailed information please <u>see</u>: ISOC's ITU-D Study Group (SG-1) 1/Question1 Submission "Creating an Enabling Regulatory Environment for Community Networks" https://www.itu.int/md/D18-SG01.RGQ-C-0338/

Complementary connectivity in Africa Region – Some case studies

- **Uganda - BOSCO:** Battery Operated System for Community Outreach (BOSCO) Uganda is a not-for-profit organisation under the trusteeship of the Catholic Archdiocese of Gulu founded in 2007. Its mission is to provide innovative information and communication technology (ICT) solutions using a collaborative and web-based approach to foster socioeconomic development and peace building in rural communities in northern Uganda.

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[3]See https://www.internetsociety.org/wp-content/uploads/2017/10/Spectrum-Approaches-for-Community-Networks_20171010.pdf

BOSCO supports 48 ICT and Development Centres with over 60,000 beneficiaries in the Northern and West Nile regions in Uganda. It was awarded the 2010 Breaking Borders Award in Technology from Google and Global Voices, and the Rural E-Services Award from the Uganda Communications Commission in 2012.BOSCO operates over 30 solar-powered ICT labs, and five larger microgrids, two of which at 30 kWp are sustainable economically with a slow payback of capital expense.

— **Zimbabwe - Murambinda Works**: Murambinda Works is a community network in Zimbabwe's rural Buhera district.[4] The connectivity project works closely with local schools and the country's Ministry of Education to provide e-learning services to schools.[5] The publicly owned TelOne Zimbabwe ISP partnered with Murambinda Works to provide Internet connection, and the telecommunications regulator has granted preliminary approval for the pilot to go ahead. The initiative is continued discussions with the regulator for approval of a license.

— **Democratic Republic of Congo,** PamojaNet - Pamoja, "together" in Swahili, is an initiative of Ensemble which began in 2016 to install the island's first Wi-Fi network, Pamoja Net. Over 3,900 people have now benefitted from free access to Pamoja Net. Research carried out by Ensemble revealed that 98% of users felt that Pamoja Net had contributed to a positive change in their life from a new-found ability to connect with family and friends to conducting educational research, making job applications, checking weather reports before fishing on Lake Kivu and saving money.

We request that ATU colleagues consider the importance of Community Networks and other alternative local-access networks to provide much needed affordable connectivity to the underserved in rural and remote areas, working with the Internet Society and other partners to encourage their deployment and uptake.

Additional Resources:

— Unleashing Community Networks: Innovative Licensing Approaches: https://www.internetsociety.org/resources/2018/unleashing-community-networks-innovative-licensing-approaches/

— Policy Brief: Spectrum Approaches for Community Networks: https://www.internetsociety.org/wp-content/uploads/2017/10/Spectrum-Approaches-for-Community-Networks_20171010.pdf

— Innovations in Spectrum Management: https://www.internetsociety.org/resources/doc/2019/innovations-in-spectrum-management/

— Community Network Policies: A Collaborative Governance towards Enabling Frameworks: https://comconnectivity.org/wp-content/uploads/2020/05/building_community_network_policies_-_a_collaborative_governance_towards_enabling_frameworks.pdf

— COVID-19 Policy Recommendations https://www.internetsociety.org/covid19-policy-recommendations

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[4] https://www.tic-ac.org/

[5] https://www.apc.org/en/users/murambinda-works

- Supporting the Creation and Scalability of Affordable Access Solutions: Understanding Community Networks in Africa: https://www.internetsociety.org/resources/doc/2017/supporting-the-creation-and-scalability-of-affordable-access-solutions-understanding-community-networks-in-africa/

- Murambinda Works Community Engagement Workshop in Buhera: Meeting Challenges with Opportunity: https://www.internetsociety.org/blog/2018/12/murambinda-works-community-engagement-workshop/

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