

COMMUNITY NETWORK REGULATION AROUND THE WORLD

Association for Progressive Communications

December 2023

In a context where many have access to a mobile signal but are not using it, there is consensus within different organisations, including the International Telecommunication Union (ITU), who recognise that connectivity must not only be universal but also meaningful. For the United Nations Broadband Commission, “meaningful universal connectivity” encompasses broadband that is available, accessible, relevant and affordable, but also that is safe, trusted, user-empowering and leads to positive impact. Doreen Bogdan-Martin, the recently elected ITU Secretary General, added that to achieve meaningful universal connectivity, “business as usual” will not work.

Among the options explored by the ITU Council Working Group-Internet on “Expanding internet connectivity”, a “number of general policy issues related to expanding internet connectivity were highlighted [...] including complementary access solutions such as community networks.” In the COVID-19 era, community networks began playing an increasingly important role in meeting the rising demand for affordable connectivity. Removing barriers for the development of community networks is rooted in international and regional resolutions. For instance, ITU member states have reached consensus to:

- Invite member states, sector members and other stakeholders to work collaboratively “to encourage innovation and entrepreneurship in local populations, including by encouraging community support for entrepreneurship and locally based programmes, including those for complementary solutions and networks.”[1]
- Invite member states to “consider inclusive and innovative policies to close the digital divide, taking into account national initiatives and telecommunications/ICT complementary access networks and solutions,” something that it has instructed the Director of the Telecommunication Development Bureau (ITU-D) to support when requested.[2]
- Invite member states to consider facilitating an environment for sharing national experiences for bridging the digital divide, using affordable technologies, such as current and emerging telecommunications/ICT infrastructure, including telecommunications/ICT complementary access networks, according to national regulations.[3]

This has been further elaborated as part of the best practices developed by the ITU’s Global Symposium for Regulators (GSR) in 2021, where within the regulatory tools to bridge the funding and financial gaps, it recommends practices that “[p]romote local innovation ecosystems and provide incentives for the participation of small and community operators in deploying low-cost rural

networks, including specific licensing measures, access to key infrastructure and funding, and social coverage promotion programs.”[4] The best practices developed by the GSR this year (2023)[5] continue this trend and include that “[p]olicy makers and regulators are encouraged to consider facilitating last mile solutions to connect the unconnected, through means such as municipal, community and mesh networks and social enterprises, as well as spectrum and infrastructure sharing and co-investment to extend networks and services to unserved and underserved areas.”

This contribution has been acknowledged within the context of the ITU-D Study Groups, in particular in part of the 2018-2021 report from Question 5/1: Telecommunications/ICTs for rural and remote areas.[6] As such, these community networks are considered as a solution in the Last Mile Connectivity Guidelines from the ITU[7] and Building Smart Villages: A Blueprint.[8]

There were also several mentions of community networks in background papers to the OECD Digital Ministerial Meeting 2022.[9]

In the Asia Pacific region, community networks are a relatively new topic. Still, they were discussed in 2019 at the Third Session of the Asia-Pacific Information Superhighway Steering Committee and WSIS Regional Review, in an event organised by ISOC and UNESCAP, and included in its deliberations.[10] On 18 August 2021, a second edition of the event where community networks were discussed took place. Its key outcomes acknowledged that community networks are cost-effective and empower rural community ownership to bridge the rural-urban digital divide as a complementary access solution in the Asia-Pacific region, and that innovative policy making is critical to address the challenges they face.[11]

More recently, the preparatory documents of the G20 meeting held in Bali in 2022 included examples of community networks as best practices and innovations on digital infrastructure.[12] For the very same G20 event in Bali, civil society from Indonesia prepared a document highlighting the three main challenges for digital transformation in Indonesia, and included community networks as one of the solutions to address them.[13] The Asian Development Bank also included community networks as one of the solutions to address the last mile connectivity affordability frontier in a paper released in December 2022.[14]

In other continents, recognition for community networks has come from regional bodies themselves. As early as 2019, the African Union Commission was instructed by members to “[p]romote the formulation of strategy and pilot projects for unlocking access to basic infrastructure and services for rural and remote areas including [...] community networks.”[15] In Latin America, the Inter-American Telecommunication Commission (CITEL) has emphasised numerous times the importance of member states creating enabling environments for community networks, including them as part of two priorities of the region for the 2024-2027 Kigali Action Plan.[16]

- As part of priority “AMS1: Deployment of modern, resilient, secure and sustainable telecommunication/information and communication technology infrastructure”, one of the expected results is: “Assistance in designing, funding and implementing national, regional and subregional broadband plans and resilient networks, including support to community networks, with special attention to indigenous communities, underserved and unserved areas, critical environment areas and vulnerable populations, taking into account innovative connectivity solutions that can be locally deployed and managed, including access to spectrum and high-speed networks.”
- As part of priority “AMS4: Development of enabling policy and regulatory environments to connect the unconnected through accessible and affordable telecommunications/ information and communication technologies that support achievement of the Sustainable Development Goals and progress towards the digital economy”, one of the expected results is: “Support for Member States in implementing policy and regulatory strategies to connect the unconnected, with a focus on affordability, including support for small operators and community networks.”

In this context, some organisations such as APC and Rhizomatica have been invited to provide trainings for regional regulatory associations, such as the recent one organised with the Communications Regulatory Authority of Southern Africa in July 2023,[17] or the upcoming course for CITELE members.[18]

At the national level, various countries around the world have already created community network categories in their licensing frameworks. In Africa, Zimbabwe,[19] Uganda,[20] Ethiopia[21] and Kenya have all considered community networks within their frameworks. In Latin America, similarly, Mexico and Argentina have created provisions for their recognition, with Colombia[22] and Brazil[23] working actively to enable them within their current frameworks.

In particular, in Kenya the Communications Authority of Kenya modified its Unified Licensing Framework in 2021 to add a Community Networks Service License with an annual fee of only 5,000 Kenyan shillings (roughly 35 USD).[24] The licence encompasses both an infrastructure and a service licence. Licensees are also exempted from contributing to Universal Service Funds. This licensing arrangement resulted from technical assistance requested by the regulator and commissioned to APC. The technical assistance process included a strong component of stakeholder consultation to ensure broad industry buy-in.[25]

South Africa is following a similar trend, as community networks in the country were operating using categories from their licence-exemptions regulations that were not fit for purpose. Following the recommendations from the Competition Commission, it is proposing the introduction of a new licence category specifically for community networks in the Amendments of the Electronic

Communications Act, the main law for the telecommunication sector, and prioritising them for assignment of shared mobile broadband spectrum.[26]

Argentina has already adopted a licence category for community networks and has adopted a framework which created Universal Service Fund (USF) mechanisms to both incentivise the adoption of a community network licence and the use of the fund to help establish connectivity providers in underserved communities.[27]

Similarly, in Kenya, the USF Strategy 2022-2026 is now looking into financing mechanisms to support 100 community networks and other complementary connectivity providers.[28] In both countries, civil society is playing an important role in building the capacity of these providers to meet regulatory requirements and to encourage collaboration between disparate projects. In addition to them, other countries like Malawi[29] and Papua New Guinea[30] propose to support for community networks in their Universal Access and Service Fund Strategic Plans for the coming years.

Countries with developed markets are increasingly moving toward a simple authorisation system which permits service provision without the need for a special licence or an exemption. This includes the United States,[31] Canada,[32] New Zealand[33] and the countries of the European Union, among others, where operating a wireless ISP with licence-exempt (typically Wi-Fi) spectrum is the same as starting any other business, and no specific telecommunications operator licence is required. Alongside with this, they have created incentive mechanisms for rollout in rural areas, such as the Gigabit Voucher scheme created by the UK's Ofcom,[34] which has helped community networks extend their footprint,[35] or making mobile broadband available to cover gaps from national operators' coverage.[36] Similarly, New Zealand created an incentive mechanism for Rural Capacity Upgrades.[37]

Notes

1 Report by the ITU Secretary-General for the Sixth World Telecommunication/Information and Communication Technology Policy Forum 2021, available at: <https://www.itu.int/wtpf21/en/itu-speeches/sgs-report>

2 RESOLUTION 37 (Rev. Kigali, 2022), Bridging the digital divide. Provisional Final Report of the World Telecommunication Development Conference (Kigali, 2022). Available at: <https://www.itu.int/md/meetingdoc.asp?lang=en&parent=D18-WTDC21-C-0103>

3 Resolution 139 on Use of Telecommunications/ICTs to bridge the digital divide and build an inclusive information society. Final Acts ITU Plenipotentiary Conference: <https://www.itu.int/pub/S-CONF-ACTF-2022>

4 ITU's Global Symposium for Regulators 2021 Best Practice Guidelines. Available at: https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/GSR-21_Best-Practice-Guidelines_FINAL_E_V2.pdf

5 https://www.itu.int/itu-d/meetings/gsr-23/wp-content/uploads/sites/20/2023/06/GSR-23_Best-Practice-Guidelines-E.pdf

6 <https://www.itu.int/hub/publication/d-stg-sg01-05-1-2021/>

7 <https://www.itu.int/en/ITU-D/Technology/Pages/LMC/LMC-Home.aspx>

8 https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-SMART_VILLAGE.NIGER-2020-PDF-E.pdf

9 Building better societies through digital policy:

[https://www.oecd-ilibrary.org/docserver/07c3eb90-en.pdf?](https://www.oecd-ilibrary.org/docserver/07c3eb90-en.pdf?expires=1703601268&id=id&accname=guest&checksum=24ACB06E1B22FCAA426BB97E6C411BD4)

[expires=1703601268&id=id&accname=guest&checksum=24ACB06E1B22FCAA426BB97E6C411BD4](https://www.oecd-ilibrary.org/docserver/175e7ce5-en.pdf?expires=1680055626&id=id&accname=guest&checksum=4BDF420EE5DBC2E4E95E055FA7F4E9FA)

; Developments in Spectrum Management for Communication Services: [https://www.oecd-ilibrary.org/docserver/175e7ce5-en.pdf?](https://www.oecd-ilibrary.org/docserver/175e7ce5-en.pdf?expires=1680055626&id=id&accname=guest&checksum=4BDF420EE5DBC2E4E95E055FA7F4E9FA)

[expires=1680055626&id=id&accname=guest&checksum=4BDF420EE5DBC2E4E95E055FA7F4E9FA](https://www.oecd-ilibrary.org/docserver/175e7ce5-en.pdf?expires=1680055626&id=id&accname=guest&checksum=4BDF420EE5DBC2E4E95E055FA7F4E9FA)

10 https://www.unescap.org/sites/default/files/Summary%20Report%20-%20Third%20AP-IS%20SC_0.pdf

11 <https://www.unescap.org/sites/default/d8files/event-documents/Key%20Outcomes.pdf>

12 <https://www.g20.org/the-g20-endorses-the-g20-compendium-of-case-studies-on-digital-infrastructure-finance-issues-practices-and-innovations/>

13 <https://online.fliphtml5.com/rmpye/oivl/#p=1>

14 <https://www.adb.org/publications/last-mile-connectivity-affordability-frontier>

15 2019 Sharm El Sheikh Declaration from the African Union's Specialized Technical Committee on Communications and Information Technologies (STC-CICT).

https://au.int/sites/default/files/decisions/37590-2019_sharm_el_sheikh_declaration_-_stc-cict-3_oct_2019_ver2410-10pM-1rev-2.pdf

16 https://www.itu.int/dms_pub/itu-d/opb/tdc/D-TDC-WTDC-2022-PDF-E.pdf

17 <https://www.apc.org/en/news/regulators-southern-african-countries-take-deep-dive-community-networks-alternatives-digital>

18 <https://portal.educoas.org/es/curso-enlinea-citel-oea-hacia-un-entorno-regulatorio-de-las-comunicaciones-comunitarias-sostenibles>

- 19 Postal and Telecommunications Regulatory Authority of Zimbabwe License Fee Categories. <http://www.potraz.gov.zw/wp-content/uploads/2022/03/Licence-Categories-Including-Fees.pdf>
- 20 Uganda Communications Commission's Communal Access Provider License. <https://www.ucc.co.ug/wp-content/uploads/2020/05/COMMUNAL-ACCESS-PROVIDER-LICENSE-25-05-2020.pdf>
- 21 Ethiopian Communication Authority's Telecommunications Licensing Directive 792-2021. [https://eca.et/2022-03-24T06-4504.775ZTelecommunications%20Licensing%20Directive%20No.%20792-2021%20\(English\).pdf](https://eca.et/2022-03-24T06-4504.775ZTelecommunications%20Licensing%20Directive%20No.%20792-2021%20(English).pdf)
- 22 <https://dplnews.com/gustavo-petro-firma-decreto-para-que-comunidades-autogestionen-su-internet-fijo/>
- 23 <https://www.gov.br/anatel/pt-br/assuntos/noticias/gt-redes-comunitarias-realiza-sua-primeira-reuniao>
- 24 Communications Authority of Kenya's Unified Licensing Framework, Community Network and Service Provider License. <https://www.ca.go.ke/wp-content/uploads/2021/10/Community-Network-and-Service-Provider-CNSP-License.pdf>
- 25 Public Consultation on Draft Licensing and Shared Spectrum Framework for Community Networks in Kenya. <https://www.ca.go.ke/public-consultation-on-draft-licensing-and-shared-spectrum-framework-for-community-networks-in-kenya/>
- 26 <https://www.gov.za/documents/electronic-communications-amendment-bill-draft-23-jun-2023-0000>
- 27 https://enacom.gob.ar/multimedia/noticias/archivos/202106/archivo_20210625022117_4017.pdf
- 28 <https://www.ca.go.ke/document/draft-usf-strategic-plan-2022-2026/>
- 29 Plans to support 30 community networks in between now and 2027: [https://www.usf.mw/downloads/UNIVERSAL%20SERVICE%20FUND%20\(USF\)%20-STRATEGIC%20PLAN%202022%20-2027.pdf](https://www.usf.mw/downloads/UNIVERSAL%20SERVICE%20FUND%20(USF)%20-STRATEGIC%20PLAN%202022%20-2027.pdf)
- 30 <https://uas.nicta.gov.pg/index.php/consultations/10-uas-projects-consultations/70-public-consultation-uas-strategic-plan-2023-2027-and-proposed-uas-projects-for-2023>
- 31 <https://www.fcc.gov/obtaining-license>
- 32 <https://crtc.gc.ca/eng/comm/telecom>
- 33 <https://www.mbie.govt.nz/science-and-technology/it-communications-and-broadband/our-role-in-the-ict-sector/telecommunications-and-broadcasting-network-operators/register-as-a-network-operator>
- 34 <https://gigabitvoucher.culture.gov.uk>
- 35 <https://b4rn.org.uk/>
- 36 <https://ch4lke.org/index.html>
- 37 <https://www.crowninfrastructure.govt.nz/rural/rural-capacity-upgrades-rcu>