IGF 2016
Reporter: Michael Oghia

Session title: Dynamic Coalition on Community Connectivity (DC3)
Session organizers: Luca Belli and Nicolas Echaniz
Date: Wednesday, 7 December
Time: 12:00 p.m. – 1:30 p.m.
Room: Workshop Room 9 PALCCO
Link: https://igf2016.sched.org/event/8htn/dc-on-community-connectivity?iframe=no&w=100%&sidebar=yes&bg=no

The session focused on the potential of community communications networks to promote sustainable Internet connectivity and foster the full enjoyment of fundamental rights such as freedom of expression and self-determination. Moreover, it was meant to explore in greater depth both the Dynamic Coalition on Community Connectivity (DC3) Declaration on Community Connectivity, and a book regarding community connectivity experiences and best practices edited by Mr Luca Belli (Center for Technology and Society), the session moderator.

The moderator welcomed everyone to the first meeting of the DC3. Before introducing the speakers, he explained that it was created to explore the emerging issue of community connectivity, and to provide a space for collaboration and to share best practices, experiences, and solutions.

Mr Bob Frankston (Institute of Electrical and Electronics Engineers (IEEE) Consumer Electronics Society) addressed how for communities to be connected, common infrastructure needs to be created so that services via applications can be operated on top of infrastructure. 'The pricing model of service providers determines connectivity costs,' he said. 'Once you have passive infrastructure, that's what makes connectivity sustainable.' He also discussed how pooling resources, especially via governments as a mechanism, encourages sustainable connectivity at sustainable prices.

Mr Nicolas Echaniz (Altermundi) emphasised, 'Community networks are not just a model for underserved regions; it is the right of the people to build community networks.' They also show how a different model of networking can be created and deployed. He said one of the biggest problems his organization has faced in Argentina is that state networks may reach villages, but they often do not extend to homes, which provides a key challenge to connectivity in the country. In order to overcome this challenge that could capitalize on the human capital and minimize financial resources was by using a mesh network, which distributes access points around an area, using energy-efficient routers they created that circumvents non-applicable regulation (e.g., from the Federal Communications Commission (FCC)). He also discussed how they are also using a model that employs unused television whitespace over the 2.4-gigahertz frequency.

Mr Roger Baig (Internet Society-Catalonia (ISOC-CAT)) analysed 36 communities, and found that community connectivity revolves around two key points: non-discrimination and openness to participation. He reinforced that three main stakeholders are involved with community networks: public administrations (regulating public spaces and facilitating access space), professionals (business and technical), and community volunteers. He also stressed, 'Community networks do not mean that they are free. Its not incompatible with business, I'd even say the contrary. We need business to make them sustainable.'

Ms Maureen Hernandez (Independent researcher) described a tool she made using a Raspberry PI that acts as a spectrum sensor that can identify empty spectrum space, which can be used to create community networks.

Mr Leandro Navarro (Technical University of Catalonia) spoke about his experience building community networks in Catalonia as well as the larger issues surrounding building such networks in a heavily regulated landscape, such as in Europe. He stressed that government, citizens, and private enterprises are the main stakeholders that need to be addressed when considering community connectivity. He closed by noting how many connectivity models exist, especially as it related to collaborating across stakeholder groups to create community networks and build trust, but said that community networks are one of the best models to expand infrastructure across the European continent and in urban environment where the market does not have as many incentives to connect individuals (such as low-income areas).

Ms Anya Orlova (Sao Paulo State University (UNESP)/Fonías Jurua Project) presented a case study on a community network deployment in a rainforest reserve in the Brazilian Amazon. She described how infrastructure of fonías radios was initially used in the reserve in the 1970s, but gradually went into disrepair due to lack of maintenance and neglect. Coupled with the decay of the local rubber tapping industry and its effect on rural communities in the area becoming low-income communities, there is little ability to build fibre optic cable or employ satellite telephony. Using high frequency radio band technology, however, they have been able to build a community network that is sustainable, carbon neutral, built and maintained by the community, low cost, and no monthly, external costs. Such community connectivity is imperative for the people of that region since it helps produce and sell goods to other parts of Brazil, utilize various services such as health and education, and help empower those rural communities to continue to thrive and push-back against efforts to take over the reserve, develop the area, or use the forest for logging.

Mr Carlos Rey-Moreno (University of the Western Cape) described the first community networking initiative map in Africa, which included 37 self-defined community networks in 12 countries where 60% are located in South Africa. He suggested that the regulatory framework in South Africa might account for why community networks flourish there as compared to other African countries. He also highlighted that in many places, community already exists; thus, community networks can help facilitate interaction and connectivity.

Ms Ritu Srivastava (Digital Empowerment Foundation) presented a case study of around 150 community networks around India that were developed by the Digital Empowerment Foundation. She stressed how such networks are encouraging civic engagement and participation. She also added that governments should legitimize community networks when considering Internet service providers, especially in rural and underserved areas. Many of the engineers that work on these networks are local engineers as well. Additionally, she stressed that spectrum should be considered a human right, specifically access via spectrum.