



Adopted Topic for Study

Digital Sound Broadcasting and Optimization of GE84 FM Broadcasting Plan

1. Introduction

Sound broadcasting, mainly FM broadcasting plays a key role in the delivery of ICTs in Africa. And yet, the service is mainly delivered via analogue FM systems. In the light of digitalization of ICTs delivery platforms, notably, the ongoing digitalization of terrestrial TV, it would be essential to consider whether sound broadcasting need to be equally digitalised. This way, sound broadcasting can easily interface with all other ICT delivery systems such as DTT, internet and so on. While nurturing analogue sound broadcasting systems such as AM, MW and FM, it may be essential to prepare for the modernization (via digitalization or otherwise) of these systems to make them continue to play their crucial in the digital era.

This proposal, proposes the study the need and options for the introduction of digital sound broadcasting including optimisation of the GE84 FM Sound broadcasting plan.

2. Problem Statement

In many metropolitan areas in Africa, the demand for FM sound broadcasting frequencies has far exceeded the available frequencies assignable for new or expanding operation thereby hindering the growth of the service. To address this demand, some administrations have optimised their GE84 FM sound broadcasting frequency plan in some of these metropolitan areas by way of modification to the GE84 Plan. Such cases include Tanzania in case of Dar-es-salaam and Zambia in the case of Lusaka and Kitwe metropolitan areas. There is need to collectively approach the optimization in a harmonised manner to guarantee maximised optimization and minimise potential cross boarder harmful interference that could arise from ad-hoc approaches. This process could be similar to the harmonised approach with which the region approached the GE06 frequency plan modification agenda which resulted in significant optimization of the plan thereby fostering spectrum use efficiency.

Analogue sound broadcasting, particularly FM sound broadcasting is a crucial part of ICTs in Africa. However, it is expected that as demand for sound broadcasting continues to grow, FM sound broadcasting frequency plan alone may not fully satisfy the demand. Therefore, there is need to explore the various digital sound broadcasting standards in order to determine the options for the adoption and introduction of digital sound broadcasting in Africa including associated frequency plans. This way, the demand for sound broadcasting can be sustainably addressed and also ensure sound broadcasting is part of the digitalization agenda.

3. Title of topic

Digital Sound broadcasting including the optimisation of the GE84 FM Sound broadcasting plans

4. Scope of study

- a. Study the need and recommend options for introduction of digital sound broadcasting including applicable standards and associated frequency plans
- b. Study the need and recommend options for optimisation of the GE84 FM Sound broadcasting plans including options for introduction of digital FM radio

5. Suggested timelines/work schedule

Phase I: Need analysis	June 2014
Phase II: Option formulation	December 2014
Phase III: Frequency planning or optimization	December 2015

6. Output

The desired output is a report outlining:

- a. Status of sound broadcasting in Africa including why current digital broadcasting has not being successful and recommending options for modernization/optimization;
- b. Modalities for introduction of digital sound broadcasting including applicable standards and associated frequency plans; and
- c. Optimisation of the GE84 FM Sound broadcasting plan through harmonised frequency plan modification including options for introduction of digital FM radio.

7. Conclusion

Sound broadcasting remains a crucial component to ICTs due to its low cost and easy of accessibility. In order to make the role of sound broadcasting continue to relevant and in line with the digitalization of ICT service delivery, it is essential that sound broadcasting is modernised and all its frequency bands optimised to deliver the much needed digital sound broadcasting. This is important for continued inclusive social economic development.