East African Communications Organisation

Communications for All in East Africa

PROPOSAL FOR A BROADCASTING SATELLITE FOR THE EAST AFRICAN REGION

Introduction

Satellite technologies are among the key enablers in achieving sustainable development goals. Across the globe, these technologies have made it possible for regions with rugged terrain and unserved communities to have access to information and communication services. This is due to the wide coverage area served by a single satellite requiring only low-cost user terminals to access the services by a large number of the population especially broadcasting services.

The broadcasting sector plays a strategic role for the East African region being the primary way governments communicate to the general population. However, this sector is still facing the challenge of poor infrastructure. Most of the EACO countries have already migrated from analogue to Digital Terrestrial Television (DTT) and yet none of these countries have achieved a 100% coverage and still rely on Broadcasting Satellite for covering the uncovered areas.

Further, global trends in spectrum management have been targeting the frequency spectrum reserved for TV Broadcasting to be used for Mobile Broadband. For the whole frequency range 270-862 MHz, only the band 470-694 MHz is remaining. Discussions at the international level are targeting the allocation of the band 600-694 MHz for the mobile service ahead of WRC-2023 This will have an adverse impact on the cost of DTT equipment and the maintenance. For instance, most developed countries such as the USA, some European as well as Arabic countries are in the process of switching off Digital Terrestrial TVs.

At the 2019 World Radiocommunication Conference, members adopted an important resolution that provided an opportunity for all the EACO member states alongside other African countries to have orbital slots and frequencies for broadcasting satellite. This is an appropriate time for the East African region to start considering having a regional Broadcasting satellite which will carry all programs with both international and local content across the region.

Proposed Regional Broadcasting Approach

According to the International Telecommunication Satellite Organisation, it costs about US$ 500 million to launch a broadcasting satellite with a 7-year lead time for planning and design prior to launch. It is hence not economically viable for a single developing country to launch a national broadcasting satellite considering the initial high deployment costs and the target market size. The most feasible approach for EAC member states would be to work together guaranteeing an aggregated market of over 150 million people and benefit from economies of scale.

Benefits and Justification

The following are the benefits for having a regional Broadcasting satellite:

1) A regional satellite will enable 100% coverage of the region with digital broadcasting;
2) The improvement in availability of broadcasting services is vital to enhance regional integration, dissemination of local content and important information with the public.
3) Having broadcasting satellite covering a bigger region is more viable economically;
4) The provision of Broadcasting services using satellite technologies will ensure the sustainability of the sector given that the currently used Spectrum for Broadcasting is being re-allocated for Mobile Broadband.
5) A satellite broadcasting project will contribute to the development of the regional Space sector.

Requirements and Cost Estimates

An estimated cost for having a Broadcasting satellite is summarized in the table below:

Requirements	**Estimated cost (USD)**
Commissioning a study for orbital slot and frequencies	1 Million
Procurement for the satellite (https://globalcomsatphone.com/costs/)	290 Million
Operation of the satellite (Opex)	100,000 to 200,000 per year

Recommendations

The following are the recommended course of action for EACO secretariat;

1) To develop a broadcasting satellite project concept paper laying forth the implementation strategy.
2) To discuss the concept with EAC member states and seek their cooperation and support for the regional project.
3) To develop a regional space strategy that will guide future space-related activities in the region.
4) To initiate discussions with EAC member states on the possibilities for setting up a regional space agency to foster investment and development in the region's space sector.
5) To start consultations with regional space agencies in other parts of the world and satellite operators for benchmarking.