

09 AUGUST 2018

VIA EMAIL

JUDE MULINDWA | OFFICER INFORMATION SERVICES

Uganda Communications Commission

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jmulindwa@ucc.co.ug

Re: Uganda Communications Commission consultation guidelines to manage TV White Space radio spectrum use in Uganda.

Dear Mr. Mulindwa:

The IEEE 802 LAN/MAN Standards Committee¹, as a leading consensus-based standards body, is pleased to review the Uganda Communication Commission consultation on guidelines for use of the TV White Spaces (TVWS) in Uganda. Here are responses to the questions in the consultation:

Question 1:

Should the use of TVWS be permitted in Uganda? Please explain your answer

Response:

Yes. TVWS enables long distance connectivity to unserved and underserved areas. This is because these bands have a very good propagation characteristics. Regulatory rules to permit TVWS will enable rural and even urban areas of Uganda to avail themselves of cost-effective broadband connectivity, resulting in many social benefits in areas including education, healthcare and finance.

Question 2:

What is your view of the scope and proposed requirements and procedures for authorization of service providers that wish to use TVWS as highlighted in sections 3 and 4?

Response:

No comment.

Question 3:

Do you have any concerns about the proposed technical requirements and standards specified for the use of TVWS in Uganda as highlighted in section 5?

If yes, please explain.

Response:

Using IEEE standards 802.11af and 802.22, as specified in the consultation, will help Uganda's population to deploy interoperable products that adhere to standard specifications and follow the regulatory rules. We recommend that IEEE 802.15.4 be added to the list, since it now includes the material originally published in IEEE 802.15.4m.

¹ This document represents the views of IEEE 802. It does not necessarily represent the views of the IEEE as a whole or the IEEE Standards Association as a whole.

Higher EIRP could help the connection to more of the population and could be configured in the database scheme.

Adding a point-to-point AP (Access Point) to AP allocation with higher power should also be considered. These links would allow increased range to help connect more villages and towns.

Question 4:

What is your view on the proposed arrangement for management of the TVWS database by a third party authorized and under the oversight of UCC as highlighted in section 6?

Response:

Using a third party for the TVWS database management has worked well in other countries, e.g. in the UK and the USA. You may want to consider two or more third parties, for economic reasons and to protect deployments from a single instance of the database. With this, it will help connect the unconnected in a more robust manner for an increase in the social value of TVWS for Uganda.

Question 5:

Do you have concern(s) with any of the roles assigned to the different stakeholders in the TVWS ecosystem in Uganda as highlighted in section 8?

Response:

No comment.

Question 6:

Do you have any additional roles that should be included for any of the stakeholders to ensure successful implementation of these guidelines or effective used of TVWS technology in Uganda?

Response:

No comment.

Question 7:

Do you have any general comments or remarks with respect to these guidelines?

Response:

Use of public funds to fuel large scale TV White Space deployments in Uganda will accelerate the proliferation of broadband connectivity. Such a program could be initiated by the Government. This model has worked in many other countries including the United States.

Summary

We would like to thank the UCC for allowing us the opportunity to respond to their consultation on use of the TV White Spaces in Uganda.

Regards,

By: /s/ Paul Nikolich

Paul Nikolich

IEEE 802 LAN/MAN Standards Committee Chairman

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