

# Licensing of TV White Space Networks in Kenya

PRESENTATION AT DYNAMIC SPECTRUM ALLIANCE SUMMIT

11<sup>th</sup> MAY 2017

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- 1. TV White Space Technology**
- 2. Licensing of TV White Space Networks in Kenya**
- 3. Way forward**

**TV White Spaces refer to frequencies allocated to TV broadcasting services but not locally used in order to avoid interference between two adjacent TV channels**

**TV White Space technology used to operate in the unused portions of the broadcasting band IV and V (470-862 MHz) during the analog era to provide internet connectivity in rural (underserved) areas**

**After the transition from Analog to Digital broadcasting TVWS was confined to 470-694 MHz when the upper portion of ATV band was allocated to Mobile services**

- The Authority received an application for the deployment of a trial TV White Space network in December 2012

- Deployment of a trial network by the applicant at
- two designated rural sites was authorised in August 2013 for a period of 12 months

Due to the on-going ITU studies at the time the following conditions were prescribed alongside the authorisation:-

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The applicant was required to obtain a Network Facilities Providers' (at least NFP Tier 3) license or works in partnership with an existing/ licensed operator.

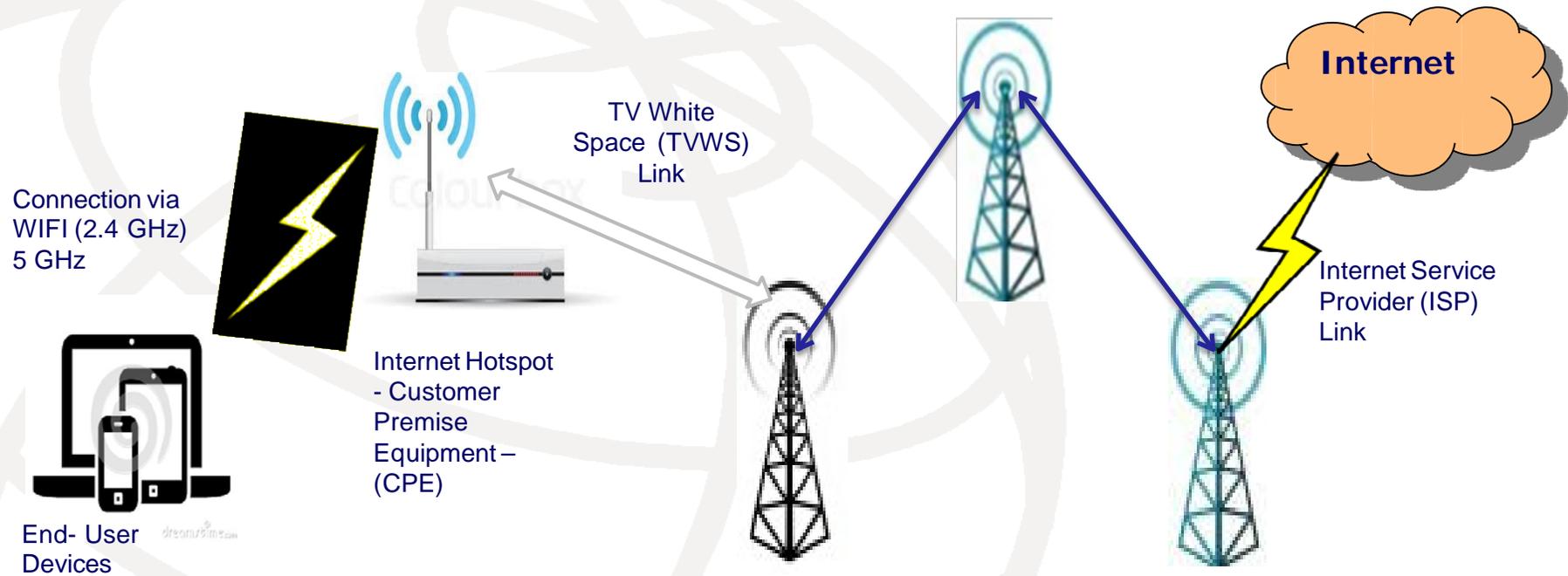
The TVWS network be confined within the frequency band 470 - 694 MHz on non-protected to non-interference and non-exclusive basis

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- That the devices and equipment to be used in the network should be type approved by the Authority prior to installation and use.
- That should the deployed trial network cause any interference to a protected radio service, the applicant shall promptly take steps to eliminate the interference and upon notification by the Commission, cease all transmissions until the interference is eliminated.

- That the TVWS devices and databases will be installed and operated in consistency with technical rules and/or international standards what will ensure that no harmful interference to is caused any licensed service.
- That at the expiry of the trial period the applicant will present to the Commission a report on the project for review. The satisfactory performance of this, together with the results of the ongoing ITU studies on the matter will determine if the trial will be converted into an operational license.

# Typical TVWS Network Set up



- At the WRC-15 it was decided that UHF shall remain a broadcasting band till 2023, as such it was not possible to out rightly Authorise telecom services to freely operate in the 470-694 MHz as though they were Wi-Fi networks whether there is interference or not.
- In order to strike a middle ground and enable Digital Broadcasting Signal Distributors recoup their investments in a harsh broadcasting environment, the Authority recently Authorised BSDs to either re-use their assigned DTV channels or seek new DTT channels for TVWS services and provide or partner with existing or new ISPs to provide internet services.
- This approach will limit the number of prospective TVWS users and also shield the Authority from being accused of flouting it own rules adopted from WRC-15

**Currently two BSDs in Kenya have been Authorised to deploy TVWS networks subject to frequency availability in different parts of the country.**

**One BSD is in the process of partnering with an existing Telecommunications service provider, while the other will go it alone in the deployment of the network and eventual provisioning of internet services**

**In future, the Authority anticipates that the other three Self-Provisioning BSDs might come forward to request for similar Authorisations hence putting more pressure on the limited spectrum resources since our first priority is to avail spectrum for DTT**