MACRA COMMUNICATIONS REGULATORY AUTHORITY

RADIO LICENCE

Ref.: R-TVWS-7
For TV White Spaces

Licence No.011255

In accordance with the provisions of the Communications Act No. 41 of 1998 ("the act") this licence is issued by the Malawi Communication Regulatory Authority (MACRA) to C3 LTD of:

Chipita Drive
P.O. Box 3100
Blantyre
Malawi

For operating:
Commercial Trial of TV White Spaces Technology

For the purpose of:
Internet Services

Located at:
Blantyre

Operating on:
UHF band

Valid for the period of:
9 Months

Effective Date:
1st September, 2016

Expire Date:
31st May, 2017

Under the terms and conditions specified in the annex hereto attached and to the provisions of the Act and Regulations made thereunder.

The licensee shall at all times display the Licence in a conspicuous place at the Licensee's office

Issued at Blantyre, this 26th day of August, 2016.

Godfrey Itaye
Director General

Receipt No. TVWS/1/2016

This licence is issued without any alterations and remains the property of MACRA

Broadcasting Radio Licence for TV White Space
OPERATING CONDITIONS
C3 LIMITED COMMERCIAL TRIAL LICENSE FOR BROADBAND SERVICE LEVER USING TV WHITE SPACES

1. A TV White Spaces commercial trial licensee shall comply with its licence terms and conditions.

2. A TV White Spaces commercial trial licence issued by the Authority shall:
   (i) Be issued on payment by the applicant of the appropriate licence fee.
   (ii) Come into effect when published in the Gazette.

3. A White Spaces licensee shall be subject to the following applicable conditions:
   (i) Operate within a channel bandwidth of 8 MHz;
   (ii) The provision of services primarily to rural and semi-urban areas;
   (iii) The provision of services to all persons including disadvantaged persons;
   (iv) Payment of fees as determined by the Authority;
   (v) Interconnection of an operator’s telecommunication system with any other system and permitting the connection of telecommunication apparatus to an operator’s system;
   (vi) Prohibition of an operator from giving undue preference to, or from exercising undue discrimination against any particular person or class of persons;
   (vii) Furnishing the Authority with documents, accounts, returns or other information that the Authority may require for the performance of its functions;
   (viii) Requiring an operator to publish in such a manner as may be specified in the licence, a notice stating the charges and other terms and conditions that may be applicable to the services provided;
   (ix) Requiring the licensee to share infrastructure with other operators where it is technically and economically feasible.
   (x) Requiring an operator to ensure that an adequate and satisfactory information system including billing, tariff and directory enquiry services are provided to customers;
   (xi) Conditions specifying the criteria for setting tariffs;
   (xii) Conditions specifying a set of defined services that a licensee shall provide to all users;
   (xiii) Conditions setting targets for the supply-time and quality-of-service indicators that a licensee ought to meet;
   (xiv) Operate at the assigned centre frequency not exceeding the specified bandwidth and not interfering with primary services.
   (xv) Shall vacate the channel to pave way for Primary services in order to avoid interference.

4. The TVWS Commercial trial licence can be revoked in the event that Spectrum is not put to use or used for other purposes
SCHEDULE 1—TECHNICAL CONDITIONS

The maximum EIRP levels for WSDs shall never exceed the following values:

1. The antenna attached to the WSD shall not exceed an EIRP of 10 Watts (40 dBm), taking into account the transmit power of the WSD's radio, loss from cable and connectors, and directional gain of the antenna.

2. Personal/portable WSDs shall be treated the same as fixed devices, except:
   
   2.1 In the event that the personal/portable WSD does not report its height information, it will be considered as a fixed device operating at 1.5 meters above ground.
   
   2.2 In the event that the personal/portable WSD does report its height information, and that height is more than 2 meters above the ground, an additional 7 dBm of power may be permitted beyond what is allowed for fixed devices.