



Information & Communication Technologies Authority

Document Ref.: ICTA/DEC/1/2018

**DECISION OF 21 AUGUST 2018 ON THE OPENING OF THE 2100 MHZ BAND FOR OPERATION OF IMT
INCLUDING IMT-ADVANCED**

21 August 2018

1.0 BACKGROUND

In 2004, the ICT Authority undertook a spectrum refarming exercise in order to make available 60 MHz of spectrum in the 1920-1980 MHz paired with 2110-2170 MHz frequency bands for the operation of IMT-2000 systems. At that point in time, mobile operators established UMTS networks in the said frequency band to provide 3G services. Since then, the 3rd Generation Partnership Project (3GPP) has published specifications for LTE and LTE Advanced technologies. LTE and LTE Advanced technologies also form part of the IMT family.

Also, the IMT technologies such as UMTS/HSPA and LTE are standardised based on criteria for technical coexistence and are intended to be backwards compatible. Given the technology-neutral approach of the ICT Authority, it endorses the fact that different IMT technologies can be deployed within the same frequency band.

2.0 DECISION ON THE INTRODUCTION OF LTE AND LTE ADVANCED IN THE 2100 MHZ FREQUENCY BAND

The ICT Authority,

Considering that,

- a) The 1920-1980 MHz paired with 2110-2170 MHz frequency band has been allocated to IMT (terrestrial) as per the Mauritius Frequency Allocation Table;
- b) It has adopted a technology neutral approach and supports the deployment of mobile technologies that can technically co-exist within the international regionally harmonised mobile bands;
- c) It has to ensure equitable access to spectrum for all mobile operators with a view to creating a level playing field;
- d) It also has to ensure that radio frequency bands do not remain unused for unreasonable time periods so that the social and economic values of the said bands are not wasted;
- e) There is a large demand for interoperable mobile voice services and interoperable mobile data services;
- f) Terrestrial IMT systems have been developed to meet this demand;

Decides that,

- g) The frequency bands 1920-1980 MHz and 2110-2170 MHz be made available to Public Land Mobile Network Licensees for operation of terrestrial IMT including IMT-Advanced;

- h) The duplex direction for FDD carriers in these bands is mobile transmit within the lower band and base transmit within the upper band;
- i) For licensing purposes, the bands 1920-1980 MHz and 2110-2170 MHz, be divided into twelve paired blocks and the minimum block size should be 5.0 MHz;
- j) Two or more adjacent 5MHz frequency blocks may be concatenated for the operation of IMT-Advanced system;
- k) Operators must comply with the technical parameters and standardisation requirements as specified in Annex 1 of this document;
- l) An operator may be assigned a maximum of 2 x 20 MHz of spectrum which shall include any current assignment in the band;
- m) Where after a period of 5 years from the coming in force of this Decision, an operator has not shown any interest to apply for and take out any spectrum earmarked for it, the ICT Authority reserves the right to entertain requests from other operators for the unassigned spectrum, on a first come first serve basis, subject to a maximum allocation of 2 x 25 MHz of spectrum per operator;
- n) Operator shall bear any costs involved in the implementation of this Decision;

Annex 1 - TECHNICAL PARAMETERS

The following technical, regulatory and operational provisions shall be applied as an essential component of the conditions necessary to ensure coexistence in the absence of bilateral or multilateral agreements between neighbouring networks, without precluding less stringent technical parameters if agreed among the operators of such networks and the ICT Authority.

IMT Radio Interface Technologies	Technical, Regulatory and Operational Provisions for coexistence
UMTS complying with UMTS Standards, as published by ETSI, in particular EN 301908-1, EN 301908-2, EN 301908-3 and EN 301908-11	1. Carrier separation of 5 MHz or more between two neighbouring UMTS networks.
LTE / LTE Advanced complying with LTE Standards, as published by ETSI, in particular EN 301908-1, EN 301908-13, EN 301908-14, and EN 301908-11	2. No frequency separation is required between LTE channel edge and the UMTS carrier's channel edge between a neighbouring LTE / LTE Advanced network and a UMTS network. 3. No frequency separation is required between LTE / LTE Advanced channel edges between two neighbouring LTE / LTE Advanced networks.

Operators may adopt less stringent provisions to those specified above subject to:

- bilateral or multilateral agreements between neighbouring networks, and;
- the authorization of the ICT Authority.