



## **Information & Communication Technologies Authority**

Consultation Ref: ICTA/01/12

### **CONSULTATION ON DRAFT DECISION REGARDING ADDITIONAL SPECTRUM FOR TERRESTRIAL COMPONENT OF INTERNATIONAL MOBILE TELECOMMUNICATIONS (IMT) IN THE 1800 MHZ BAND**

13 April 2012

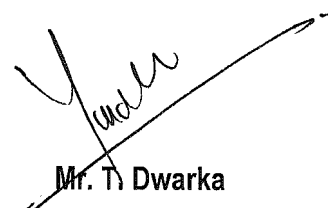
## Explanatory memorandum

*Considering that:*

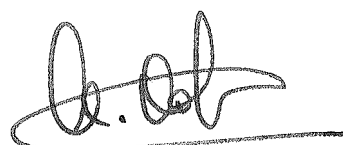
- 1) the ICT Authority has as one of its functions, under section 18(p) of the Information and Communication Technologies Act 2001, to *“allocate frequencies and manage, review, and, where appropriate, reorganise the frequency spectrum”*;
- 2) the ICT Authority has as one of its objects, under section 16(g) of the Information and Communication Technologies Act 2001, to *“further the advancement of technology, research and development relating to information and communication technologies through modern and effective infrastructure taking into account the convergence of information technology, media, telecommunications, and consumer electronics”*;
- 3) The Authority has received expressions of interest to operate International Mobile Telecommunications (IMT) systems in the frequency band 1710-1885 MHz (*“the frequency band of interest”*);
- 4) The frequency band of interest is under the National Spectrum Allocation Plan allocated to the MOBILE and FIXED services on a primary basis and is currently used for Digital Communication System (DCS) 1800;

*The Information and Communication Technologies Authority resolves to:*

- 1) make available for public consultation the Consultation Document Ref 2012/1 which includes at ANNEX A a draft decision which is the subject matter of the consultation;
- 2) invite views, contributions, and comments on the Consultation Document.



**Mr. T. Dwarka**  
**Chairman**



**Dr. M. K. Oolun**  
**Executive Director**

## GUIDELINES ON RESPONDING TO THIS CONSULTATION

G.1 All comments are welcomed; however it would make the task of analyzing responses easier if comments were referenced to the relevant question numbers from this document. The questions are listed together at ANNEX B.

G.2 You are invited to send your written views and comments on the issues raised in this document to the **Executive Director, ICT Authority, 12<sup>th</sup> Floor The Celicourt, Celicourt Antelme Street, Port Louis**, or by email to [icta@intnet.mu](mailto:icta@intnet.mu), at latest by 16h00 on 11 May 2012.

G.3 Should you be including confidential information as part of your responses, you are requested to clearly identify the said confidential materials and to place same in a separate annex to your response.

## ANNEX A: DRAFT DECISION FOR CONSULTATION

### **DRAFT Decision of the xx April 2012 on additional spectrum for Terrestrial Component of International Mobile Telecommunications (IMT) in the 1800 MHz band**

The Information and Communication Technologies Authority in exercise of its statutory functions under the Information and Communication Technologies Act 2001 as amended issues the following Decision pursuant to section 17(3) combined with sections 18(p) and 16 (g) of the said Act. This decision shall come into force with immediate effect.

The Information and Communication Technologies Authority,

*Considering,*

- a. that International Mobile Telecommunications (IMT) is the root name, encompassing both IMT-2000 and IMT-Advanced;
- b. that in 2004 the ICT Authority made available the 2100 MHz frequency band for the implementation of International Mobile Telecommunications (IMT);
- c. that operators have implemented Universal Mobile Telecommunications Systems (UMTS) in the 2100 MHz frequency band;
- d. that Resolution 223 (Rev. WRC-12) has invited administrations implementing IMT or planning to implement IMT to make available, based on user demand and other national considerations, additional bands or portions of bands above 1 GHz for the terrestrial component of IMT including the 1710-1885 MHz band;
- e. that spectrum has been assigned in the 1710-1880 MHz frequency band for the operation of Digital Cellular System 1800 (DCS1800) ;
- f. that any other technology to be deployed in the 1800 MHz band has to demonstrate technical compatibility with technologies operated both in-band and in adjacent bands;
- g. that the Authority has to ensure equitable access to spectrum among operators with a view to creating a level playing field;
- h. that the ICT Authority had carried out public consultation in 2008 with regard to the opening of the 1785 – 1805 MHz band for Broadband Wireless Access;

*Recognizing*

1. that UMTS, Long Term Evolution (LTE) and Worldwide Interoperability for Microwave Access (WiMAX) are technologies of the IMT family which may operate in the 1800 MHz band;
2. that according to Electronic Communications Committee Report 82 UMTS systems may coexist with existing technologies in the 1800 MHz band subject to implementation of appropriate guard bands between the edges of spectrum blocks assigned to respective operators ;
3. that according to CEPT Reports 40 and 41 LTE and WiMAX systems may coexist with existing technologies in the 1800 MHz band subject to implementation of appropriate guard bands between the edges of spectrum blocks assigned to respective operators ;

*DECIDES,*

1. that additional spectrum shall be made available for the deployment of Frequency Division Duplex (FDD) terrestrial component of IMT in the 1710-1880 MHz frequency band;
2. that decides (1) shall not preclude the abovementioned frequency bands from being used for DCS1800;
3. that the Authority may consider, upon receiving applications for Network Spectrum Licence made under section 24 of the ICT Act 2001 (as amended) and subject to spectrum availability, to assign blocks of the 1710-1880 MHz frequency bands to Public Land Mobile Network Licensees on a first-come first-serve basis;
4. that current assignees of spectrum in the 1710-1880 MHz bands may decide to operate IMT within their current assignments;
5. that an operator shall be assigned a maximum of 25 MHz x 2, including any current assignments, in the 1710-1880 MHz band;
6. that IMT systems to be deployed in the 1710-1880 MHz band shall be of the Radio Interface Technologies specified and shall be subject to technical, regulatory and operational provisions defined at Annex 1
7. that operators may adopt less stringent provisions to those specified at Annex 1 subject to:
  - a. bilateral or multilateral agreements between neighbouring networks, and;
  - b. the authorization of the Authority.

## ANNEX I

### TECHNICAL, REGULATORY AND OPERATIONAL PROVISIONS FOR COEXISTENCE BETWEEN IMT AND DCS1800

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	<ol style="list-style-type: none"> <li>1. Carrier separation of 5 MHz or more between two neighbouring UMTS networks.</li> <li>2. Carrier separation of 2.8 MHz or more between a neighbouring UMTS network and a DCS1800 network.</li> </ol>
LTE complying with LTE Standards, as published by ETSI, in particular EN 301908-1, EN 301908-13, EN 301908-14, and EN 301908-11	<ol style="list-style-type: none"> <li>1. A frequency separation of 200 kHz or more between the LTE channel edge and the DCS1800 channel edge between a neighbouring LTE network and a DCS1800 network.</li> <li>2. No frequency separation is required between LTE channel edge and the UMTS carrier's channel edge between a neighbouring LTE network and a UMTS network.</li> <li>3. No frequency separation is required between LTE channel edges between two neighbouring LTE networks.</li> </ol>
WiMAX complying with WiMAX Standards, as published by ETSI, in particular EN 301908-1, EN 301908-21 and EN 301908-22	<ol style="list-style-type: none"> <li>1. A frequency separation of 200 kHz or more between the WiMAX channel edge and the DCS1800 carrier's channel edge between a neighbouring WiMAX network and a DCS1800 network.</li> <li>2. No frequency separation is required between the WiMAX channel edge and the UMTS carrier's channel edge between a neighbouring WiMAX network and a UMTS network.</li> <li>3. No frequency separation is required between WiMAX channel edges between two neighbouring WiMAX networks.</li> </ol>

## ANNEX B: LIST OF CONSULTATION QUESTIONS

**Question 1:** Is there a strong demand for additional spectrum for the deployment of mobile broadband systems including IMT?

**Question 2:** What is the estimated spectrum demand (MHz) for the next fifteen years for the deployment of mobile broadband systems including IMT?

**Question 3:** What are the frequency bands of interest for the deployment of mobile broadband systems including IMT?

**Question 4:** Please provide your views on the proposed decisions in the format below:-

Proposed Decision	Comments/Views/proposed modification
1	
2	
3	
...	
...	
...	
7	

**Question 5:** Kindly indicate whether you consider the proposed technical parameters as reasonable.