



National Information & Communication Technology Authority

RESPONSE TO THE RESPONDENT

WBA Equipment

March 2017

Executive Summary:

NICTA published 6 consultation documents, amongst them the “*draft 3 WBA Equipment*” in both daily newspapers on three different dates, seeking views and comments from the public and the stakeholder regarding the content of the document. The consultation period was from 15/1/16 to 11/3/16.

In line with the NICT ACT, the document consultation sought professional views and inputs from the ICT industry, stakeholders, and individuals, hereby called the respondents, their views and inputs were forwarded to NICTA by way of written submissions. These submissions were analysed by NICTA staff and responded to the respondents accordingly.

The Digicel PNG Ltd and Cambium Networks Limited, Australia, New Zealand and Pacific were the only respondents to this consultation paper. Interestingly enough, both provided same written comments therefore, NICTA has provided a single summary response to their comments and inputs which is outlined in the table below.

NICTA would like to thank the respondents for their efforts in providing professional views, comments, and inputs to this document.

1.0 Purpose of this document:

- To review recommendations, comments and inputs received from the respondents.
- To provide NICTA’s response to the comments received.

2.0 Respondents:

2.1 Digicel PNG

2.2 Roy Wittert, Regional Sales Director – Cambium Networks Limited, Australia, New Zealand, and Pacific.

3.0 NICTA'S response to the respondents

3.1	DIGICEL PNG Ltd INPUTS/COMMENTS	NICTA'S RESPONSE TO DIGICEL INPUTS/COMMENTS
3.1.1	Section 1.3 – one WBA is referred to as WiMAX, which is no longer applicable. The term fixed wireless or FWB is now applicable. WiMAX was a set of protocol for one type of wireless technology used for both mobile and fixed wireless broad band. WiMAX has lost its industry support and chipsets and products are no longer being produced.	Although WiMAX is no longer employed in other countries, in PNG Telikom is still operating Mobile WiMAX access network on 2.3 GHz band and also few other operators operating private Fixed WiMAX networks. NICTA understands that FWB is a generic term which includes WiMAX and therefore made appropriate changes in response to your suggestion.
3.1.2	Section 1.2.1 – WiMAX IEEE 802.16 is no longer applicable and was the only standard for fixed wireless. There is infact no standard for fixed wireless, so the generic term of FWA should be used.	Refer to 3.1.1
3.1.3	Section 1.2.3 – WiMAX is no longer the applicable benchmark. For example, Cambium networks makes effective 2 x 2 MIMO products operating in the ISM band, that use many standard protocols, but have a proprietary MAC layer. Such products are in use in PNG as well as globally and are covered by effective FCC and ETSI standards and have ACMA and RSM (NZ) approvals.	NICTA agrees with Digicel that WiMAX is slowly loosing popularity however Telikom PNG still deploys mobile WiMAX therefore NICTA has regulatory obligation to protect that network and its users. NICTA understands this argument and made the necessary changes.
3.1.4	There is no mention of 5.4GHz ISM band applicable in both Australia and New Zealand? Is there any reason for this? The inclusion of this ISM band in PNG could be very beneficial.	5725 – 5875MHz band is an ITU-R allocated ISM band (RR No. 5.150) while 5.4GHz is not. NICTA believes the 5.4GHz band may be an ISM band solely allocated by the local administration (ACMA) in Australia; NICTA is not obliged to enforce this unless it is specified in its band plan. The suggestion to include 5.4GHz as PNG ISM band is a good one though and may be considered in future.
3.1.5	Section 5.1 –WiMAX system is not the appropriate term for 1.5; 2.3 and 3GHz bands. Perhaps a better term is a licenced TDD solutions or BWA or FWA. Digicel would also like to repeat its observations in section 2.3 above regarding the use of 3GHz band up to 3.8GHz and the 2300 band. 3GHz use for any technology should be limited to a maximum frequency of 3.6GHz and the use of 2300 band should be reconsidered in favour of 100MHz wide TDD LTE allocation. (Band 40). The adoption of Australian channel plan in the 5GHz band is to be welcomed as this will ensure access to the equipment suppliers in Australia at cost effective prices.	Firstly, every national administration including NICTA has the discretion to make resource available for applications or specific services. 3.4 -3.6GHz was identified for IMT in the last WRC and discussions are ongoing at regional level (APT) on the acceptable frequency arrangement i.e. the limits, TDD or FDD. NICTA notes comments on 5GHz band. NICTA's decision will be based on regional harmonization and country identification.

3.1	DIGICEL PNG Ltd INPUTS/COMMENTS	NICTA'S RESPONSE TO DIGICEL INPUTS/COMMENTS
3.1.6	<p>Section 5.1.1 – There is no mention of ISM bands at 5.4GHz and 900MHz. In Australia there is 918 – 926MHz at 1W and NZ 915 – 928MHz at 1W and 921 – 928MHz at 4W. Digicel request that the use of these ISM bands in PNG is considered.</p>	<p>5.4GHz is an ISM band applicable only in Australia and New Zealand but it is not in PNG (see 3.1.4). The applicable ISM bands In PNG is 915MHz – 925MHz.</p>
	<p>Digicel would like to comment extensively on section 511 and 516 in relation to the CDMA use in the 800MHz. NICTA is aware of the ongoing interference from the 800MHz CDMA Network in PNG into the Digicel GSM network which uses spectrum starting at 880MHz. While standalone CDMA800 system complying to the listed standards are perfectly accepted, special measures are required when these two systems are operated together in the same geographical locations. The out of band emissions from the CDMA800 system interfere with and cause interference to the GSM base stations at 900MHz. The interference manifests itself as blocking and dropped calls.</p>	<p>NICTA believes that this document is not an appropriate place to discuss this comment as it amounts to a complaint. NICTA suggests that Digicel lodge this comment through an appropriate person, the Director Licencing and Enforcement.</p>
	<p>Digicel requests NICTA to mandate that any CDMA800 base station equipment granted type approval must operate with an appropriate out of band limiting filter. This band filter must attenuate the out of band emissions by 60 – 80 dB before 880MHz. Digicel will be more than happy to share its extensive knowledge of this issue with NICTA and to provide details of appropriate filters that must be a mandatory requirement for CDMA800 base station equipment being granted type approval in PNG.</p>	<p>This is a good request, NICTA may need to further research and incorporate it in the CDMA Type Approval Specifications.</p>

