

# **Maxis Broadband Sdn Bhd**

Public Consultation

Proposed Malaysia's Positions for  
World Radiocommunication Conference  
2023 (WRC-23) Agenda Items

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## **Public Consultation on Proposed Malaysia’s Positions for World Radiocommunication Conference 2023 (WRC-23) agenda items**

### **Executive Summary**

We would like to thank MCMC for inviting comments from licensees, industry experts, interested parties and members of the public on the proposed Malaysia’s position for World Radiocommunication Conference 2023 (WRC-23) agenda items.

Maxis is appreciative that MCMC’s public consultation allows the government to solicit and incorporate important perspectives on spectrum matters. This enables active participation by key stakeholders in major public policy issues such that comprehensive assessment can be done. A spectrum roadmap and a clear understanding of spectrum plans moving forward will aid industry in its preparations to better serve the consumer. Additionally, as has been done in previous meetings, we further aim to support KKD & MCMC where we can in the WRC-23 conference itself.

After detailed review of the PC document, Maxis has developed our comments and views on the following WRC-23 agenda items. Maxis however at this stage will not share our position(s) on other frequency bands and/or agenda items.

<b>Agenda Item</b>	<b>Comments and Views on Proposed Malaysia’s Positions</b>
<b>Fixed, Mobile and Broadcasting Issues</b>	
<b>1.1</b>	Maxis agrees with the proposed Malaysia’s position supporting the appropriate measures to address the protection of stations of the aeronautical and maritime mobile services located in international airspace and waters (i.e., outside national territories) operating in the 4800-4990 MHz frequency band, and the implementation of IMT systems in this frequency band, as practicable.
<b>1.2</b>	<p>Maxis supports the proposed Malaysia’s position where Malaysia supports the identification of IMT in the 7025-7125 MHz frequency band with appropriate regulatory and technical conditions, taking into account the results of studies to ensure the protection of services to which the frequency band is allocated on a primary basis and in adjacent bands, if appropriate.</p> <p>This including where Malaysia noting that the following frequency bands are being considered for other Regions and would not oppose an IMT identification in those Regions, where relevant:</p> <ul style="list-style-type: none"> <li>- 3600-3800 MHz and 3300-3400 MHz (Region 2);</li> <li>- 3300-3400 MHz (amend footnote in Region 1);</li> <li>- 6425-7025 MHz (Region 1); and</li> <li>- 10.0-10.5 GHz (Region 2)</li> </ul> <p>Maxis observes that there are five (5) methods to satisfy this agenda item for the globally identified band 7025-7125 MHz. We raise general concern with regards to Method 5E in the CPM23-2 report which proposes to identify the frequency band 7025-7125 MHz for IMT where the use is expected from 2030 onwards, in due time for launching IMT-2030, as proposed by the proponents of this method. This use of this band for IMT</p>

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	<p>from 2030 may be considered being late. Further, the method 5A proposes no change which avoids the identification of IMT in this band and therefore is not considered a suitable method. Methods 5B to 5D can be considered subject to further deliberation at APG23-6 and subsequently at WRC-23.</p> <p>In addition to the above, Maxis further observes that there are five (5) methods to satisfy this agenda item for the Region 1 identified band 6425-7025 MHz.</p> <p>As highlighted in the report of the Conference Preparatory Meeting on technical, operational and regulatory/procedural matters to be considered by the WRC-23, with demand for IMT applications continuing to increase (a trend clearly observed in Malaysia with operators continually demonstrating consumer use per GB rising, please refer to Appendix 1 charting the per user average GB/month utilisation for Maxis from 2018 to 2022), additional IMT spectrum identifications in the mid-range frequency bands need to be considered in order to enable future deployments, where these applications and services might be difficult to implement using lower or higher frequency bands.</p> <p>As such, we kindly request MCMC to consider the possibility of identification of the frequency band 6425-7025 MHz in Malaysia through Region 3 country footnote with appropriate regulatory and technical conditions, with a view to ensuring the protection of services to which the frequency band is allocated on a primary basis, without imposing additional regulatory or technical constraints on those services, and also, as appropriate, on services in adjacent bands. In making such decisions, we further observe that Malaysia would need to make its own analysis of ITU-R studies and draw its own conclusions, taking into account prevailing circumstances and interference environment as well as other conditions in Malaysia as appropriate and valid.</p> <p>Some of the rationales of Maxis' proposal for the band 6425-7025 MHz are as below:</p> <ul style="list-style-type: none"><li>a) The coverage and quality of 5G services depend on the right type and amount of spectrum available for deployment. The allocation of 3.5GHz spectrum band in most of the world including Malaysia continue to improve the 5G universal connectivity, and Malaysia is expected to reach 80% 5G population coverage by end of 2023. Nevertheless, the rapid growth of data traffic and diverse service demands will require more spectrum to be made available to improve the capacity, speed and quality of 5G services in the future. This is especially relevant with Malaysian Government's decision to introduce a second 5G network upon 80% 5G population coverage is reached. Further, GSMA recommends that upper 6GHz (6425-7125MHz) is the next priority band for MNOs to continuously increase capacity and lower costs on the road towards 5G-</li></ul>
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	<p>Advanced. With the rise of new services such as cloud computing, VR, AR and even fully connected campuses, spectrum bands with higher capacity networks are critical to support future bandwidth requirements.</p> <p>b) Recent field trial conducted by Maxis with the support of University Malaya in Kuala Lumpur shows that upper 6 GHz band is able to achieve the continuous coverage in outdoor urban environment as well as appropriate penetration in indoor environments. With larger bandwidth in upper 6 GHz (6425-7025/7125 MHz, total 700MHz) as compared to 3.5 GHz (total 200MHz) currently allocated for 5G in Malaysia, the upper 6 GHz band could be a good candidate spectrum to compliment 3.5 GHz as capacity layer in longer term for 5G and beyond.</p> <p>c) Globally, consideration for IMT using the upper 6GHz band is growing, which is expected to be able to accelerate the end-to-end ecosystem on this band in the near future.</p> <ul style="list-style-type: none"> <li>• 3GPP R17 finalized the specification for 6425-7125MHz IMT with band number n104.</li> <li>• It appears that there was a proposal to identify the frequency band 6425-7025 MHz for countries in Region 3 for IMT at WRC-23 during the CPM23-2 by creating a new RR footnote with appropriate conditions.</li> <li>• RCC and ATU have formed preliminary supportive view for IMT in this band. CEPT is also considering supportive views on the use of upper 6 GHz band for IMT.</li> <li>• China has published its latest version of Regulations on Radio Frequency Allocation, in which upper 6GHz is identified for IMT, targeting at promoting the future IMT development in 5G/6G. Also, Hong Kong SAR released the global first public consultation on assignment arrangement of upper 6GHz on 17<sup>th</sup> July 2023.</li> </ul>
<p><b>1.4</b></p>	<p>Maxis supports the proposed Malaysia’s position on establishing regulatory provisions for the use of HIBS in certain frequency bands below 2.7 GHz already identified for IMT referred to in Resolution 247 (WRC-19), provided that the regulatory provisions will ensure protection of the existing services to which the frequency band is allocated on a primary basis, and the adjacent bands, as well as no additional regulatory or technical constraints imposed on the deployment of ground-based IMT systems in those frequency bands. The protection from transmission of HIBs including from neighbouring countries are important for Maxis considering that we are actively using the 900 MHz, 1800 MHz, 2100 MHz and 2600 MHz bands for voice and data services using ground-based terrestrial systems.</p>

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**Appendix 1**

