

9 August 2019

Chairman
Malaysian Communications and Multimedia Commission
MCMC Tower 1, Jalan Impact, Cyber 6,
63000 Cyberjaya,
Selangor

Attn: Spectrum Planning Division

**AXIATA'S RESPONSE TO PUBLIC CONSULTATION ON PROPOSED
MALAYSIA'S POSITIONS FOR WORLD RADIOCOMMUNICATION CONFERENCE
2019 (WRC-19) AGENDA ITEMS**

First of all, allow me to congratulate MCMC for all your efforts in facilitating the work needed in preparation of the WRC-19. Malaysia, through the leadership of MCMC, has played a leading role in the facilitating investments in mobile broadband networks as a tool for socio-economic development and job creation to all Malaysians and in pursuit of the UN's sustainable development goals.

As WRC-19 approaches, allow us to express our full support of MCMC's positions especially in respect to high-capacity (specifically the mmWave) 5G radio frequencies under consideration. These frequencies will be essential for Axiata and other operators to deliver world-leading 5G services in Malaysia and the region.

The use of these frequencies in 5G networks will afford new levels of performance that had not been attainable until now. By fully utilising the mmWave spectrum, services such as high-speed broadband, industrial automation and intelligent transport systems will break new ground and deliver innovative services that bring public benefit to Malaysia. The potential impact of these high-capacity 5G frequencies on Asian GDP is estimated at US\$212bn over the next 15 years with US\$45bn in South & South East Asia (source: GSMA).

The spectrum at 26 GHz will be an important part of 5G growth for the mobile industry and its consumers. Support should also be given for the global harmonisation of the 40 GHz band. This frequency band can only be globally harmonised at WRC-19 if the whole band is supported from 37-43.5 GHz, producing the greatest economies of scale and most affordable equipment.

WRC-19 offers the opportunity to ensure that high-capacity 5G innovation fully develops across Malaysia and the rest of the world, and MCMC's support is gratefully requested.





Please find attached Axiata's response to the Public Consultation on Proposed Malaysia's Positions for WRC-19 Agenda Items. Should you require further clarification please contact Siti Hajar Md Saad (hajarsaad@axiata.com) at +603-2263 8977.

Yours sincerely,

A handwritten signature in blue ink that reads "Asri Hassan".

ASRI HASSAN

Group Chief Corporate Officer
Axiata Group Berhad

cc

Idham Nawawi
Chief Executive Officer
Celcom Axiata Berhad

APPENDIX

Please find below Axiata response to relevant Agenda Item as per the Public Consultation paper:

No.	Agenda Item	Proposed Malaysia (MLA) Views and Positions
Working Party 2: Broadband Applications in the Mobile Service		
5.	1.13	<p>Axiata supports Malaysia view for the identification of the terrestrial component of IMT in the following frequency bands:</p> <ul style="list-style-type: none"> • 24.25 to 27.5 GHz; • 37 to 40.5 GHz; • 40.5 to 42.5 GHz; • 42.5 to 43.5 GHz; • 47.2 to 50.2 GHz; • 50.4 to 52.6 GHz; and • 66 to 71 GHz <p>We are further supportive of following methods for respective bands above:</p> <p>24.25 - 27.5 GHz : Method A2 Alternative 2 Identifying this frequency band for the terrestrial component of IMT in Regions or globally.</p> <p>The 26 GHz band is adjacent to the 28 GHz band, allowing for a broad frequency range, economies of scale and early equipment availability. Furthermore, 28GHz has commercially being used for 5G in the US and South Korea whilst there are considerable number of other countries committed to making 28GHz available for IMT. 28GHz is also being considered as one of the primary bands for 5G under the Malaysia 5G Task Force.</p> <p>37-40.5GHz, 40.5-42.5GHz and 42.5-43.5 GHz Method C2, D2 and E2 (Alternative 2) Identifying these frequency band for the terrestrial component of IMT in Regions or globally.</p> <p>Identifying the whole range from 37- 43.5GHz for IMT allowing for broad frequency range. The wide range provide flexibility to countries to implement part of this range, at same time allowing for global harmonization and lowering equipment and device cost.</p> <p>47.2-50.2 GHz Method H2 Alternative 2 Identify the 47.2-50.2 GHz frequency band for the terrestrial component of IMT in Regions or globally.</p>

No.	Agenda Item	Proposed Malaysia (MLA) Views and Positions
		<p>50.4-52.6 GHz Method I2 Alternative 2 Identify the 50.4-52.6 GHz frequency band for the terrestrial component of IMT in Regions or globally</p> <p>66-71 GHz Method J2 Alternative 2 Identify the frequency band 66-71 GHz for the terrestrial component of IMT in Regions or globally. Remove the frequency band 66-71 GHz from RR No. 5.553.</p>
6	1.16	<p>Axiata supports Malaysia view on the following issues</p> <ul style="list-style-type: none"> • Revision of 5150 -5250MHz Resolution 229 (Rev.WRC-12) to enable outdoor Wireless Access Systems /Radio LAN operations with associated conditions to protect the incumbent services • Supports regional primary mobile service allocation in 5725-2850MHz to accommodate Wireless Access Systems /Radio LAN
9	9.1 (Issues 9.1.8)	<p>Axiata supports Malaysia view that no regulatory action is required in the Radio regulations to identify dedicated spectrum for the use of narrowband and broadband Machine Type Communication. These services could be deployed in frequency bands already allocated to Mobile Service, or already identified for IMT use.</p>
<p>Working Party 6: General Issues</p>		
31.	10	<p>It is increasingly difficult to find frequency bands that are available for mobile/IMT use on a global basis. Hence, it may be necessary to identify frequency bands/ranges from within which different portions may be used in different countries/regions according to their situations and needs.</p> <p>Additional spectrum between 3 and 24 GHz will be required for IMT to provide additional capacity for future 5G expansion and widespread provision of innovative 5G services with better propagation characteristics than above 24 GHz. The long and tedious process of the ITU-R warrants the need to address the future IMT spectrum needs now. It is therefore proposed to consider a new agenda item for WRC-23 to study spectrum below 24 GHz for IMT.</p> <p>Based on the current progress of the 5G Task Force Group (Task Force), other than 28GHz, 3.3 - 3.8GHz is also being considered as a primary band for IMT in Malaysia. Furthermore, Task Force is likely to recommend this band for 5G spectrum in Malaysia. Apart from the ongoing study on coexistence between Fixed Satellite Services (FSS) and IMT to manage the potential domestic interference issues, it is also crucial to ensure regional harmonisation on this band as these band is heavily being used for FSS throughout the region. Hence, there may be a need to review spectrum for IMT in the range 3.3/3.4 - 3.8 GHz</p>

No.	Agenda Item	Proposed Malaysia (MLA) Views and Positions
		<p>Axiata wishes to propose for Malaysia to consider proposing if not supporting the following new Agenda Item for WRC-23 that are currently being discussed:</p> <ol style="list-style-type: none"> 1. to consider and study the 6 GHz as potential spectrum band for IMT use in the future 2. to consider identification of frequency bands within the range 3300 - 3800 MHz for IMT