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| **The 5th Meeting of the APT Conference Preparatory**  **Group for WRC-19 (APG19-5)** | **APG19-5/INP-xx** |
| 31 July – 6 August 2019, Tokyo, Japan | xx July 2019 |

IEEE 802 LAN/MAN Standards Committee (LMSC)

**IEEE 802 LMSC Views on WRC-19 Agenda Items**

For consideration in APG-19 Working Party 6

**Introduction**

IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for wireless networking devices, including wireless local area networks (“WLANs”), wireless specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and wireless regional area networks (“WRANs”). We appreciate the opportunity to provide these comments to ACMA.

IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 420,000 members in about 190 countries and supports the needs and interests of engineers and scientists broadly. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole.

IEEE 802 LAN/MAN Standards Committee (LMSC) respectfully submits its views for consideration of WRC-19 Agenda Items 1.12 (5.8GHz), 1.13 (66-71GHz), 1.15 (275-450GHz) 1.16 (5150-5925 MHz), 9.1.5 (5150-5250MHz, 5250-5350MHz & 5470-5725MHz) and 10 with regards to proposal(s) seeking IMT identification in parts of the 5925-7125 MHz frequency range.

**Agenda Items 1.12 (5.8GHz)**

IEEE 802.11 has provided the wireless standard (IEEE Std 802.11p-2010) that provides the basis for much of the Intelligent Transport Systems (ITS) Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) technologies being deployed today. We believe that this technology is capable of sharing the 5850-5925 MHz band with other unlicensed applications. We also understand that global harmonization of the technology is a notable effort that would enable technology improvements and cost reductions to better address rapid adoption to meet the ITS safety goals, an effort we would support.

**Agenda Item 1.13 (66-71GHz)**

Due to the following developments, IEEE 802 recommends that WRC-19 not consider 66-76 GHz for IMT identification.

* On July 14, 2016, FCC published a Report and Order and Further Notice of Proposed Rulemaking (FCC 16-89) [<https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-89A1.pdf>] to adopt 64-71 GHz band for License Exempt operation.
* In January 2018, the ITU-R published Recommendation M.2003-2 [<https://www.itu.int/rec/R-REC-M.2003-2-201801-I/en>] herein this band was indicated for Multigigabit Wireless Systems. This facilitates the introduction of IEEE 802 technologies that are capable of supporting 5G use cases under the existing Mobile Allocation.
* In February 2018, the Radio Spectrum Policy Group of the European Union (RSPG) published their Second Opinion on 5G [<http://rspg-spectrum.eu/2018/02/>] in which they recommended making this band available on a general authorized access basis. We believe that a wide variety of 5G services and use-cases will be deployed in this band globally without the need for an IMT identification. In fact, IMT identification could bar some key 5G technologies from operating in this band.

**Agenda Item 1.15 (275-450GHz)**

**Agenda Item 1.16** (**5150-5925 MHz)**

**Agenda Item 9.1.5 (5150-5250MHz, 5250-5350MHz & 5470-5725MHz)**

**Agenda Item 10 Re Proposal Seeking IMT Identification in 6GHz Band**

Mobile, Fixed Services and Fixed-Satellite Services have co-primary status in the 6GHz band (5925-7125MHz). In many regions, including Region 3 (APAC), earth stations (Earth-to-space direction) in conjunction with commercial fixed-Satellite service (FSS) are already operational in the band.

As the band already enjoys Mobile allocation by ITU, cellular mobile operation is provisioned and can be administered flexibly regionally or nationally in APT without a need to IMT designation. Any IMT designation may require re-farming of the band and relocation of incumbent to other bands that is costly and also require availability of alternative sub 10 GHz spectrum. Alternatively, sharing mechanisms, such as Automatic Frequency Coordination (AFC) being provisioned in other regions to accommodate RLAN co-existence with incumbent Fixed Services, allows sharing of the band without the need for relocation.

Extensive effort has been already started in Regions 1 and 2 (US and Europe) to designate 6GHz band (5925-7125MHz) for licensed exempt operation. More specifically, the European Commission has issued directives in form of [EC Mandate](https://cept.org/Documents/fm-57/41902/fm57-18-info002_european-commission-mandate-on-rlan-in-5925-6425-mhz) to CEPT to conduct the studies for co-existence and harmonized technical conditions for RLAN operation in the band. (Please see recently published [ECC Report 302](https://www.ecodocdb.dk/download/cc03c766-35f8/ECC%20Report%20302.pdf)). Similarly, U.S. Federal Communication Commission has already issued Notice of Proposed Rule Making ([Unlicensed Use of the 6 GHz Band NPRM](https://www.fcc.gov/document/fcc-proposes-more-spectrum-unlicensed-use-0)) proposed to authorize expanded unlicensed operations throughout the 6 GHz band. In US, the 6GHz Report and Order is expected to be issued by the end of 2019.

Flexible sharing of the band facilitate broader role unlicensed spectrum can play in advancing growth and innovation globally and across APAC.

Consideration of an agenda item WRC-23 for 6GHz IMT designation, would be counterproductive as it may disrupt advancing growth and innovation globally and across Region 3 and cause unnecessary regulatory burden both at ITU and regionally in APT.

**Conclusion**

IEEE 802 LMSC asks APG19-5 to [TBD]

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