



**30 MEETING OF PERMANENT  
CONSULTATIVE COMMITTEE II:  
RADIOCOMMUNICATIONS  
November 27 to December 1, 2017  
Barranquilla, Colombia**

**OEA/Ser.L/XVII.4.2.30  
CCP.II-RADIO-30/doc. 4359-9-1-8/17 rev.2  
1 December 2017  
Original: English**

**INTER-AMERICAN PROPOSALS FOR WRC-19**

**AGENDA ITEM 9.1, ISSUE 9.1.8**

**(Item on the Agenda: 3.1 (SGT-1))**

**(Document submitted by CITELE Member States)**

**SGT-1**

**Coordinator:** Luciana CAMARGOS – B – [lcamargos@gsma.com](mailto:lcamargos@gsma.com)

**Vice-Coordinator:** José COSTA – CAN – [jose.costa@ericsson.com](mailto:jose.costa@ericsson.com)

**Agenda Item Rapporteur:** Sergio Marquez – MEX – [sergio.marquez@ift.org.mx](mailto:sergio.marquez@ift.org.mx)

**Agenda Item Vice-Rapporteur:** Jayne STANCAVAGE – USA – [jayne.stancavage@intel.com](mailto:jayne.stancavage@intel.com)

*Agenda item 9.1, Issue 9.1.8: On the activities of the Radiocommunication Sector since WRC-15, Issue 9.1.8: – Resolution 958 (WRC-15) – Urgent studies required in preparation for WRC-19 – Narrowband and broadband machine-type communication infrastructures.*

## **BACKGROUND**

WRC-19 Agenda item 9.1, issue 9.1.8 calls for studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work.

Machine-type communication (MTC), machine-to-machine (M2M), and Internet of Things (IoT) are all different names for the same type of application that enables machines to communicate with each other. In this proposal, MTC is the common reference for these forms of communication. In the ITU-R, these types of applications already take advantage of spectrum allocated to the mobile service, including frequency ranges identified for International Mobile Telecommunications (IMT). Input from industry and other groups developing MTC technologies, including presentations at the ITU Workshop on Spectrum Management for Internet of Things Deployment (November 2016, Geneva, Switzerland), indicated overwhelmingly that identifying specific frequency bands for MTC applications may delay or unnecessarily restrict innovation, and may cause an inefficient use of the spectrum.

CITEL Administrations have analyzed the current and future spectrum use for narrowband and broadband MTC, as expressed in Resolution 958 (WRC-15), with the conclusion that there is no need to identify specific spectrum for those applications.

IMT systems have been developed over years to satisfy various broadband and narrowband requirements and use cases. The support of massive MTC is one of the usage scenarios of IMT-2020. Studies that support new spectrum requirements for mobile communications, such IMT-2020, already considered massive MTC applications as one of the reasons for increase in the capacity of the IMT networks.

ITU-R Working Party 5D (WP 5D) is the responsible group to develop relevant studies on issue 9.1.8 for WRC-19. As such, WP 5D has initiated the work on this topic, with the development of technical reports. The content being developed in these reports fulfill the studies invited in Resolution 958 (WRC-15).

MTC applications and devices can be used effectively with all the benefits of the existent mobile broadband bands and the new frequency bands under study for IMT.

Therefore, having spectrum identified specifically for MTC is neither desired, nor necessary, and thus no changes are needed in the Radio Regulations (RR).

## **PROPOSALS**

**NOC** IAP/9.1 Issue 9.1.8/1

### **Support:**

**Argentina, Brazil, Canada, Colombia, Dominican Republic, Ecuador, United States, Guatemala, Mexico, Panama, Uruguay**

### **Radio Regulations Volumes 1& 2**

**Reasons:** Analysis of the current and future spectrum use for narrowband and broadband machine type communications (MTC), also known as machine-to-machine (M2M) or Internet of Things (IoT), concluded that there is no need to identify specific spectrum for those applications. Therefore, no change to the Radio Regulations or regulatory action is required.

SUP IAP/9.1 Issue 9.1.8/2

**Support:**

**Argentina, Brazil, Canada, Colombia, Dominican Republic, Ecuador, United States, Guatemala, Mexico, Panama, Uruguay**

ANNEX TO RESOLUTION 958 (WRC-15)

**Urgent studies required in preparation for the  
2019 World Radiocommunication Conference**

...

3) Studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work.

**Reasons:** Analysis of the current and future spectrum use for narrowband and broadband machine type communications (MTC), also known as machine-to-machine (M2M) or Internet of Things (IoT), concluded that there is no need to identify specific spectrum for those applications. Therefore, no change to the Radio Regulations or regulatory action is required. No changes also apply to RR Volume 3, apart from the suppression proposed to parts of Resolution **958 (WRC-15)**.

---