|  |  |  |
| --- | --- | --- |
|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 5th Meeting of the APT Conference Preparatory****Group for WRC-19 (APG19-5)** | **APG19-5/OUT-38** |
| 31 July – 6 August 2019, Tokyo, Japan | 5 August 2019 |

Working Party 2

**APT VIEW and PRELIMINARY APT COMMON PROPOSAL**

**on WRC-19 agenda item 9.1 (ISSUES 9.1.8)**

**Agenda Item 9.1 (Issues 9.1.8):**

Issue 3) in the 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.*

**1. Background**

WRC-15 decided that urgent studies should be carried out “to support the implementation of narrowband and broadband machine-type communication infrastructures” under WRC-19 agenda item 9.1, issue 9.1.8, and that the Director of the Radiocommunication Bureau reports on these studies under agenda item 9.1 of WRC-19, based on the results of studies, as appropriate. This was decided taking into account the rapid growth expected for MTC and the advantages of wireless technologies instead of cabling, for instance: reduced complexity of installation, no damage to cables, increased machine deployment, mobility and flexibility.

There are ITU-R Resolutions such as Resolution ITU-R 54-2 “Studies to achieve harmonization for short-range devices” and Resolution ITU‑R 66 “Studies related to wireless systems and applications for the development of the Internet of Things”. Furthermore, Resolution ITU-R 66 recognizes “that IoT is a concept encompassing various platforms, applications, and technologies that are, and will continue to be, implemented under a number of radiocommunication services”. In accordance with Resolution ITU-R 66, the ITU-R developed Report ITU-R SM.2423.

In February 2019, ITU has finalized CPM Report for this Agenda Item, as contained in [Report of the CPM to WRC-19](https://www.itu.int/md/R15-CPM19.02-R-0001/en). It concluded that the results of ITU-R studies of the current and future spectrum use for narrowband and broadband MTC performed, as expressed in Resolution **958 (WRC-15)**, concluded that there is no need for any regulatory action in the Radio Regulations with regard to specific spectrum intended for use by those applications. Nonetheless, there are other mechanisms, which could facilitate the harmonized use of spectrum to support the implementation of narrowband and broadband MTC infrastructures, including ITU-R Recommendations or Reports.

**2. Documents**

* + - Input Documents APG19-5/INP-17 (NZL), 37 (IRN), 43 (AUS), 50 (INS), 80 (J), 103 (MLA, SNG, THA), 128 (KOR)
		- Information Documents APG19-5/INF-03 (IARU), 18 (CEPT), 19 (ATU), 22 (RCC)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 New Zealand** - **Document APG19-5/INP-17**

New Zealand supports no change to the Radio Regulations. New Zealand is of the view that there is no need to identify dedicated spectrum for Internet of Things (IoT) or Machine-type communication (MTC) in the Radio Regulations. IoT/MTC could be deployed in frequency bands already allocated to Mobile Service, or already identified for IMT use. Such applications can be clarified through development of appropriate ITU-R Recommendations, Reports and/or Handbooks.

**3.1.2 Iran** - **Document APG19-5/INP-37**

This administration has a view that there is neither need to take any regulatory action in the Radio Regulations nor to make any specific identification of spectrum to support narrowband and broadband machine-type communication applications. This view is identical to APT Preliminary View provided in the Document APG19-4.

**3.1.3 Australia** - **Document APG19-5/INP-43**

Australia is of the view that there should be no change to the Radio Regulations with respect to specific spectrum for the use of narrowband and broadband machine-type communication applications, consistent with the CPM Report conclusion.

Australia supports the development of appropriate ITU-R Recommendations, Reports and/or Handbooks on technical and operational aspects of using different radio networks and systems for the implementation of narrowband and broadband machine-type communication infrastructures.

Any future study can be accommodated in the scope of work of the ITU Radiocommunication Sector (ITU-R).

Paragraph 3) of the Annex to Resolution **958 (WRC-15)** can be suppressed.

Australia supports a Preliminary APT Common Proposal to WRC-19 of NOC, as follows:



**3.1.4 Indonesia** - **Document APG19-5/INP-50**

Indonesia is of the view to support the conclusions in CPM Report that there is no need to take any regulatory action in the Radio Regulations with respect to specific spectrum for the use of narrowband and broadband MTC applications in the Radio Regulations.

There may be other ways to address the harmonized use of spectrum to support the implementation of narrowband and broadband MTC. The study of technical and operational aspects including the potential harmonized spectrum usage to support the implementation of narrowband and broadband MTC infrastructures could be further accomplished through the course of the work in ITU-R Study Groups including the development of ITU-R Recommendations, Reports and/or Handbooks, as appropriate. One example of the potential harmonized use of IMT-based MTC, based on IMT frequency arrangements provided by Recommendation ITU-R M.1036, can be found in Report ITU-R M.2440-0.

**3.1.5 Japan** - **Document APG19-5/INP-80**

Similar to the agreed APT Preliminary Views at the APG19-4 meeting and the conclusion of the CPM report, Japan is of the view that there is no need to identify specific spectrums for MTC applications according to the ITU Radio Regulations.

 Japan proposes to develop a Preliminary APT Common Proposal as embedded below.



**3.1.6 Malaysia, Singapore and Thailand** - **Document APG19-5/INP-103**

Malaysia, Singapore and Thailand support the APG19-4 Preliminary View on WRC-19 agenda item 9.1 (Issue 9.1.8), as follows:

* The possible harmonized use of spectrum to support narrowband and broadband machine-type communication applications can be achieved through ITU-R Recommendations/Reports; and
* There is no need to make any changes to the Radio Regulations nor any identification of spectrum to support narrowband and broadband machine-type communication applications in the Radio Regulations, consistent with the CPM Report’s conclusion.

**3.1.7 Korea** - **Document APG19-5/INP-128**

The Republic of Korea is of the view that there is no need to take any regulatory action in the Radio Regulations with respect to specific spectrum for the use of those applications in the Radio Regulations.

**3.2 Summary of issues raised during the meeting**

None

**4. APT View(s)**

APT Members support the conclusion of the CPM Report to WRC-19 agenda item 9.1 issue 9.1.8.

**5. Preliminary APT Common Proposal(s)**

APT Members support the common proposal as developed at APG19-5 and enclosed herewith.

