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|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 4th Meeting of the APT Conference Preparatory**  **Group for WRC-23 (APG23-4)** | **APG23-4/OUT-10** |
| 15 – 20 August 2022, Bangkok, Thailand | 20 August 2022 |

Working Party 1

**PRELIMINARY VIEWs on WRC-23 agenda item 9.1 (topic c))**

**Agenda Item 9.1 topic c):**

*to study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution* ***175 (WRC-19)****;*

**1. Background**

Resolution **175 (WRC-19)** *resolves to invite the ITU Radiocommunication Sector* “to conduct any necessary studies on the use of IMT systems for fixed wireless broadband in the frequency bands allocated to the fixed service on primary basis, taking into account the relevant ITU-R studies, Handbooks, Recommendations and Reports”.

In accordance with the results of CPM23-1, the above studies are being conducted by ITU-R Working Parties 5A (WP 5A) and 5C (WP 5C) jointly. WP 5A is responsible for the fixed wireless access applications in the fixed service and WP 5C is responsible for all the other applications of fixed wireless systems, according to the assignment of work by Study Group 5 to its working parties.

At their meeting of WPs 5A and 5C in May/June 2022, the draft CPM text for WRC-23 agenda item 9.1, topic c) was finalized as contained in [Annex 8 to Document 5A/597](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597!N08!MSW-E.docx).

**2. Documents**

* Input Documents [INP-07](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-07_J-1_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1.C_and_RR_No.21.5.docx) (J), [INP-14](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-14_AUS_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1Topic_c_and_No21.5.docx) (AUS), [INP-19](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-19_BGD_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.4_and_9.1Topic_c.docx) (BGD), [INP-23](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-23_IRN_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_and_9.1Topic_c.docx) (IRN), [INP-34](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-34_KOR_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4__9.1Topic_c_and_No.21.5.docx) (KOR), [INP-40](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-40_China_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1Topic_c_and_No.21.5.docx) (CHN), [INP-45](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-45_Thailand_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.4_and_9.1Topic_c.docx) (THA), [INP-51](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-51_NZL_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.5_9.1_Topic_c_and_No.21.5.docx) (NZL), [INP-55](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-55_SNG_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_9.1Topic_c_and_No.21.5.docx) (SNG), [INP-59](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-59_Samoa_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.5_and_9.1Topic_c.docx) (SMO), [INP-61](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-61_India_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.3_1.4_1.5_9.1Topic_c_and_No.21.5.docx) (IND), [INP-73](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-73_Philippines_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_and_9.1Topic_c_0.docx) (PHL)
* Information Documents [INF-02](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-02_ATU_preparation.docx) (ATU), [INF-03](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-03_WMO_Positions.docx) (WMO), [INF-12](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-12_Brief_on_AI9.1.c.docx) (DG chair), [INF-21](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-21_ASMG_Preparation_for_WRC-23.pdf) (ASMG), [INF-28(Rev.1)](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-28Rev.1_CITEL_Preparation_for_WRC-23.pdf) (CITEL), [INF-44](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-44_Status_of_RCC_preparation_to_the_World_Radio_Conference_and_Radio_Assembly_2023.pdf) (RCC), [INF-48](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-48_Status_of_CEPT_preparation_for_WRC-23_and_RA-23.pdf) (CEPT)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 Japan** - **Document APG23-4/**[INP-07](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-07_J-1_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1.C_and_RR_No.21.5.docx)

* Japan does not support changes to the Radio Regulations, except for the suppression of Resolution **175 (WRC-19)**, under WRC-23 agenda item 9.1, topic c).
* Japan supports discussing modification of the existing ITU-R Recommendations, Reports and/or Handbooks and, if required, development of new ITU-R deliverable(s), in response to the on-going studies in ITU-R.

**3.1.2 Australia** - **Document APG23-4/**[INP-14](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-14_AUS_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1Topic_c_and_No21.5.docx)

* Australia supports studies in accordance with Resolution **175 (WRC-19)**. Australia also supports the modification of existing or, if required, the development of new ITU-R Recommendations, Reports and/ or Handbooks as a result of these studies. Australia supports the suppression of Resolution **175 (WRC‐19)** and opposes any changes to the Radio Regulations being made under this topic.
* Australia is of the view that the term “fixed wireless broadband” is understood to mean fixed wireless access supporting broadband applications. The use of IMT as a technology for the deployment of fixed wireless broadband is no different to the use of any other radio interface technologies for fixed wireless broadband in bands allocated to the fixed service on a primary basis provided that such use is in accordance with the Radio Regulations.

**3.1.3 Bangladesh (People's Republic of)** - **Document APG23-4/**[INP-19](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-19_BGD_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.4_and_9.1Topic_c.docx)

* In Bangladesh 10.7-11.7 GHz band is being utilized for FS and FSS as primary basis. The on-going studies shall take into account the protection of primary services in the frequency bands currently allocated for FS and FSS. The People’s Republic of Bangladesh is of the view that IMT technology within the capability of IMT systems would be utilized to support for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis based on no change to the Radio Regulations (RR) under agenda item 9.1 topic c).

**3.1.4 Iran (Islamic Republic of)** - **Document APG23-4/**[INP-23](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-23_IRN_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_and_9.1Topic_c.docx)

* The Islamic Republic of Iran is of the view that the use of frequency bands having a frequency allocation for primary fixed service by IMT-type Fixed Wireless Broadband systems, (using IMT technologies) shall be fully compatible with existing services and in no way shall adversely affect the interference environment currently prevails. Such use shall also fully respect the current operational conditions of the fixed and other radiocommunication services / systems.
* Furthermore, this Administration is of the view that this agenda item neither requires any regulatory change in Radio Regulations during WRC-23 nor needs further consideration through an agenda item in WRC-27.

**3.1.5 Korea (Republic of)** - **Document APG23-4/**[INP-34](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-34_KOR_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4__9.1Topic_c_and_No.21.5.docx)

* The Republic of Korea is of the view that Resolution **175 (WRC-19)** would be satisfied with an update of existing and/or new Reports, Recommendations, and Handbooks of ITU-R to show the usability of IMT technologies for the fixed wireless broadband in the frequency bands allocated to the fixed service on a primary basis.

**3.1.6 China (People’s Republic of)** - **Document APG23-4/**[INP-40](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-40_China_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_1.5_9.1Topic_c_and_No.21.5.docx)

* China supports the on-going ITU-R studies in accordance with Resolution **175 (WRC-19)** under WRC-23 agenda item 9.1 topic c), and the modification of existing or, if required, the development of new ITU-R Recommendations, Reports and/ or Handbooks as a result of these studies. China also has the view that “fixed wireless broadband” supports a range of applications such as access and core network transport.

**3.1.7 Thailand (Kingdom of)** - **Document APG23-4/**[INP-45](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-45_Thailand_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.4_and_9.1Topic_c.docx)

* Thailand supports no change to Radio Regulations under agenda item 9.1 topic c) as the modification to existing or the development of new ITU-R Recommendations and/or Reports is sufficient to accommodate the use of IMT technologies for fixed wireless broadband in the frequency bands allocated to the fixed service on a primary basis. Such use of IMT technologies for fixed wireless broadband shall take into account the protection of existing primary services currently allocated to those bands.

**3.1.8 New Zealand** - **Document APG23-4/**[INP-51](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-51_NZL_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.5_9.1_Topic_c_and_No.21.5.docx)

* New Zealand considers that agenda item 9.1 topic c) should be addressed by reviewing the existing ITU-R Recommendations/Reports and Handbooks and make necessary modifications to implement FWA/FWB systems using IMT technology. The development of new ITU-R Recommendations or reports should only be considered, if necessary. New Zealand supports Alternative 2 and is of the view that there is no need to have any draft new or revised Resolution on this matter. New Zealand does not support Alternative 1. New regulatory provisions in the Radio Regulations for FWB applications using IMT technology should not be considered. Any topic under agenda item 9.1 should not lead to proposals to change the Radio Regulations, this view is aligned with the scope of Resolution **175 (WRC-19)**.

**3.1.9 Singapore (Republic of)** - **Document APG23-4/**[INP-55](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-55_SNG_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_9.1Topic_c_and_No.21.5.docx)

* Based on the recent development of ITU-R studies under agenda item 9.1 topic c), Singapore would like to share its preliminary views under this agenda item as follows:

1. Support Approach 2 to address the issue for the use of IMT technology in the frequency bands allocated to the fixed service on a primary basis by updating existing ITU-R Recommendations/Reports/Handbooks. There is no need to develop new regulatory provisions in the Radio Regulations and thus agenda item 9.1 topic c) should not lead to any changes to the Radio Regulations.
2. Support Alternative 2 to address the issue of a response to the objectives of Resolution **175 (WRC-19)** reflecting the fact that there is no need to have any draft new or revised Resolution.

**3.1.10 Samoa (Independent State of)** - **Document APG23-4/**[INP-59](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-59_Samoa_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.5_and_9.1Topic_c.docx)

* The co-signing Administration believes that any technology in the FS should operate under the existing regulatory framework of the FS and ensure the protection of other services, including FSS satellite networks. The scope of the studies should be IMT technologies used for FWA, not the development of Mobile Systems in the FS. Using IMT systems in the FS is not compliant with the Radio Regulations definition No. 1.20, “fixed service: A radiocommunication service between specified fixed points.” Furthermore, this Administration is of the view that this agenda item does not require any change to the ITU Radio regulations but only a short report to the Director on the topic.

**3.1.11 India (Republic of)** - **Document APG23-4/**[INP-61](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-61_India_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.2_1.3_1.4_1.5_9.1Topic_c_and_No.21.5.docx)

* India supports discussing modification of the existing ITU-R Recommendations, Reports and/or Handbooks and, if required, development of new ITU-R deliverable(s), in response to the on-going studies in ITU-R. The IMT systems for fixed wireless broadband shall not impose restrictions or shall not cause interference to other radiocommunications services.

**3.1.12 Philippines (Republic of the)** - **Document APG23-4/**[INP-73](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-73_Philippines_WP1_Preliminary_Views_on_WRC-23_Agenda_Items_1.1_1.2_1.3_1.4_and_9.1Topic_c_0.docx)

* Philippines supports the ITU-R studies towards the use of IMT system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution **175 (WRC-19)**.
* Philippines also supports the modification of existing or, if required, the development of new ITU-R Recommendations, Reports and/or Handbooks as a result of these studies. However, Philippines is of the view that Agenda Item 9.1 (Topic c) should not lead to any changes to the Radio Regulations.

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

* There was discussion regarding the meaning of the term “fixed wireless broadband” and whether to mention this point in the APT Preliminary Views. There was a proposal to include specific examples of fixed wireless broadband applications, such as “access and core network transport”. After the discussion, it was decided not to include such details.

**4. APT Preliminary View(s)**

* APT Members support the on-going ITU-R studies in accordance with Resolution **175 (WRC-19)** under WRC-23 agenda item 9.1 topic c).
* APT Members support reviewing existing ITU-R Recommendation(s), Report(s) and/or Handbook. If this review identifies any need for their revision to meet the objective of this topic, APT Members support revising them accordingly. Should such a revision still not satisfy the requirements of this topic, the development of new Recommendation(s), Report(s) and/or Handbook is supported.
* APT Members support no change to the Radio Regulations under agenda item 9.1 topic c), except for suppression of Resolution **175 (WRC-19)**.
* APT Members are of the view that the term “fixed wireless broadband” could include a range of applications.
* APT Members are of the view that there is no need to have any draft new or revised Resolution on this matter in the draft CPM text.

**5. Other View(s) from APT Members**

* None.

**6. Issues for Consideration at Next APG Meeting**

* None.

**7. Views from Other Organisations** (as provided in the information documents to

APG23-4)

**7.1 Regional Groups**

**7.1.1 ASMG** - **Document APG23-4/**[INF-21](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-21_ASMG_Preparation_for_WRC-23.pdf)

* To consider the use of IMT systems and technologies in the frequency bands allocated on a primary basis to the fixed service and to consider the bands that can be used for IMT systems for fixed wireless broadband in the frequency bands allocated on a primary basis to the fixed service with an emphasis on the protection of existing services.

**7.1.2 ATU** - **Document APG23-4/**[INF-02](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-02_ATU_preparation.docx)

* Consider taking a position once studies under this agenda item are sufficiently progressed in accordance with Resolution **175 (WRC-19)**.
* Decide that, as a matter of principle, the protection of incumbent services operating in the same or in adjacent frequency bands need to be ensured.

**7.1.3 CEPT** - **Document APG23-4/** [INF-48](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-48_Status_of_CEPT_preparation_for_WRC-23_and_RA-23.pdf)

* The usage of IMT systems in the fixed service is not compliant with the Radio Regulations;
* The work under this topic should focus on consideration of broadband fixed wireless access (BFWA) that use IMT technologies under the existing regulatory framework of the FS;
* Given the existing provisions of the Radio Regulations and taking a technology neutral approach there is no need to consider/study specific frequency bands under this topic;
* BFWA that use IMT technologies as well as other technologies in the frequency bands allocated to the fixed service can be adequately addressed, if necessary, through an update of appropriate existing ITU-R Recommendations/Reports/Handbooks;
* The development of new ITU-R Recommendations/Reports should only be considered, if necessary, based on the outcome of a review of existing ITU-R Deliverables;
* Discussions on fixed wireless broadband applications that use IMT technologies, as any other technologies, should take place in ITU-R WPs 5A and 5C (not other ITU-R WPs) to avoid fragmentation of work and to ensure efficient working within ITU-R.

**7.1.4 CITEL** - **Document APG23-4/**[INF-28(Rev.1)](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-28Rev.1_CITEL_Preparation_for_WRC-23.pdf)

* One administration is of the view that based on the limitation of the topics included in AI 9 to consider and approve the report of the Director of the Radiocommunication Bureau regarding the activities of ITU-R since the last Conference, agenda item 9 topic C of WRC-23 cannot lead to changes in the ITU-R Radio Regulations. Therefore, Article 5 of the RR shall not be modified with respect to the possible use of international mobile telecommunications systems for fixed wireless broadband in the frequency bands allocated to the fixed service on a primary basis.

**7.1.5 RCC** - **Document APG23-4/**[INF-44](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-44_Status_of_RCC_preparation_to_the_World_Radio_Conference_and_Radio_Assembly_2023.pdf)

* IMT systems are designed to work in motion and do not meet the definitions of the FS. Studies on this topic should focus not on "IMT systems", but on "IMT technologies" used for FWA. It is necessary to assess the rational to introduce fixed wireless broadband systems using IMT technologies.
* IMT technologies for FWA stations in the bands allocated to the FS on a primary basis should be considered only as stations of FS that shall not cause more interference to other servicies, nor claim more protection than existing FS stations.

**7.2 International Organisations**

**7.2.1 WMO** - **Document APG23-4/**[INF-03](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-03_WMO_Positions.docx)

* WMO is concerned about this Topic c) under Agenda item 9.1 that is very broad in scope and could hence potentially affect many meteorological operations and applications, including EESS (passive) under footnote RR No 5.340.
* WMO will monitor the work on this Topic and contribute as necessary.

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