**SYMPOSIUM ON SPECTRUM MANAGEMENT 2024**

29 – 31 July 2024, Dhaka, Bangladesh

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**CONCEPT NOTE**

1. **Background**

Wireless communication is playing a crucial role to enhance universal and meaningful connectivity. It’s significant role has encompasses many sectors of the economy, connecting people and society, automating industries, supporting public services and monitoring the natural environment. The increasing use of wireless connectivity across different industry sectors, and the impact of technology developments leading to new and innovative applications, is driving demand for radio spectrum, and calling for a shift in the way we approach spectrum management.

The World Radiocommunication Conference 2023 (WRC-23) which was held from 20 November to 15 December 2023 in Dubai, United Arab Emirates concluded with decisions on main agenda items encompassing all radiocommunication services. Being the Radio Regulations have been revised, all the stakeholders in Asia-Pacific region and globally have started to interpret the outcomes of WRC-23 and possible impact on current and future use of radio spectrum. Governments and regulators want to enable existing spectrum users to grow and innovate whilst also allowing new services to emerge. It is believed that the use of spectrum will continue to transform the way we live and work – benefiting people and beyond, helping to make us more productive and supporting industries across the economy. To do this, the spectrum management strategy for the future is to be reviewed by changes in the market, technology, and in demand from people and businesses. A number of policy and regulatory questions in the context of spectrum management to be reviewed and addressed at regular intervals. Among such questions include the national spectrum strategy, how to address the increasing demand for additional spectrum and formulate spectrum roadmap and spectrum outlook, how to evaluate the role of radio spectrum in socio-economic development; and what policy to be adopted. These questions are important to be reviewed and studied and answered and it is national and regional interests to do so.

The Strategic Plan of the APT for 2024-2026 adopted by the 16th Session of the General Assembly of the Asia-Pacific Telecommunity in November 2023, emphasized to create conducive policies and regulatory environments for the use of spectrum in the Asia-Pacific region under Digital Connectivity pillar to enhance universal and meaningful connectivity. A number of action items has been listed in this regards in terms of ensuring the availability of spectrum for new applications, efficient use of spectrum, developing spectrum roadmap, harmonization of the use of spectrum at regional and global level, sharing best practices and promote collaboration and cross-border coordination among members of APT.

APT being the only inter-governmental organization focusing on telecommunication/ICT development in the Asia-Pacific has considered the importance of spectrum management since its inception. Spectrum management has always been an integral part of APT’s activities towards the development of telecommunication/ICT in the region. The APT Conference Preparatory Group for WRCs (APG) is engaged in developing APT Common Proposals for WRCs. In addition, the APT Wireless Group (AWG) is dealing with the implementation of the decisions of WRCs for achieving harmonization as well as technical aspects of the latest wireless technologies. However, many key policy and regulatory aspects and upcoming challenges of overall spectrum management issues have yet not been dealt and addressed sufficiently even though there is considerable interest from members.

Considering the interest and demand of the members for a discussion platform for policy and regulatory issues of spectrum management, the Symposium on Spectrum Management 2024 was proposed and approved by the 47th Session of the Management Committee of the APT.

1. **Objectives**

2.1 Discuss and share understandings on policy and regulatory issues in spectrum management taking into account the outcomes of WRC-23, possible approaches toward new ICT trends and to facilitate regional cooperation in relevant areas, including but not limited to:

* Connectivity needs and national spectrum strategy
* Spectrum policy and technological consideration for enhancing rural connectivity
* Meeting demand for spectrum bandwidth and developing spectrum roadmap
* Spectrum management vision of the future
* Best practices and experiences in spectrum management among members;

2.2 Encourage dialogue among high level policy makers, regulators and industry in the region on those issues mentioned above.

1. **Tentative Programme:**

Tentative Programme is attached in Annex A

1. **Expected outcome**

* Understanding of the concept of connectivity and role of spectrum strategy
* Creating a spectrum management vision fit for the future taking into account the outcomes of WRC-23
* Facilitating appropriate policy and regulatory actions for spectrum management in the Asia-Pacific region
* Enhanced greater regional cooperation in the area of spectrum management.

1. **Date and Venue**

29 – 31 July 2024, Dhaka, Bangladesh

1. **Participants**

The Symposium has been developed for the high level executives and officials of the policy makers, telecom regulators and industry in Asia-Pacific who are involved and have interests in spectrum policy, regulation and management. Open to all APT Members, Associate Members and Affiliate Members as well as international/regional organizations. A number of regional and global eminent experts on spectrum policy, regulation and management would be invited as resource persons.

It is expected that the Symposium will be attended by about 80 – 100 delegates.

1. **Contact persons**

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| **APT Secretariat** | **Local Secretariat** |
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**Annex A**

**APT Symposium on Spectrum Management 2024**

**Tentative Programme**

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| **Time** | **Monday, 29 July 2024** |
| 09:30 – 10:00 | **Opening**   * Welcome Address by APT Secretariat * Inaugural Address by BTRC * Presentation of Token of Appreciation   (Group Photograph) |
| 10:00 – 10:15 | Coffee/Tea Break |
| 10:15 – 10:30 | **Session 1: APT Strategic Plan 2024-2026**   * Outcomes of the 16th Session of the General Assembly of the Asia-Pacific Telecommunity   + The Strategic Plan of the APT for 2024-2026   + APT Ministerial Meeting   + Celebration of the 45th Anniversary of APT |
| 10:30 – 12:00 | **Session 2: *Connectivity needs and national spectrum strategy***    *Enhancing digital connectivity is one of the overreaching goal of the APT to accelerate the development of telecommunication/ICT for fostering growth of economy and society in the Asia-Pacific region. Digital connectivity concept encompasses the enhancing access and efficiency of telecommunication/ICT infrastructure, including digital broadband infrastructure. Radio frequency spectrum plays a significant role to provide the needs for connectivity. Wireless*  *connectivity provides increasingly reliable and affordable high-speed internet access, helping to eliminate coverage gaps and to enable diversity, equity, and inclusion for all.*  *However, in many cases it has often been noticed that the significant role of radio frequency spectrum is unacknowledged. Considering the outcomes of WRC-23 and ongoing innovations in wireless technologies there is a need to develop and comprehensive strategy to modernize spectrum policy and make the most efficient use possible of this vital national resource to address the connectivity needs.*  *This session aims to address the connectivity needs in different economies in Asia-Pacific and how their national spectrum strategy has been addressed in fulfilling the connectivity needs. This session will also include the essential components to develop a modern and up-to-date comprehensive spectrum strategy.*  ***Discussion Topics:***   * How connectivity needs and national spectrum strategy are related? * Visions and key elements in national spectrum strategy * Development of spectrum strategy * Regional and global practices of developing spectrum strategy * Case studies in Asia-Pacific * Industry views * Q&A |
| 12:00 – 14:00 | Lunch Break |
| 14:00 – 15:15 | **Session 3: *Connectivity needs and national spectrum strategy (Continued)***  *Continue from previous session* |
| 15:15 – 15:30 | Coffee/Tea Break |
| 15:30 – 17:00 | **Session 4: *Connectivity needs and national spectrum strategy (Continued)***  *Continue from previous session* |
| **Time** | **Tuesday, 30 July 2024** |
| 09:00 – 10:30 | **Session 5: *Meeting the demands for bandwidths - Spectrum outlook and developing spectrum roadmap***  *As a result of ongoing innovations in wireless technologies, demand for spectrum access is growing at a rapid pace. From the outcomes of WRC-23 it it evident that there is significant development in next-generation wireless networks, large satellite constellations in low-Earth orbit, rapidly increasing space launch cadences, aggregated data transfer requirements, 5G and 6G broadband networks, private wireless networks, autonomous vehicles, and other advanced systems are driving the demand for spectrum.*  *To address the growing demands for radio frequency spectrum it is imperative to have overall spectrum outlook that provides an overview of recent activities, address emerging developments in wireless communications and highlights international spectrum trends. Also, a clear spectrum roadmap is necessary to address the demand for bandwidth by various services.*  *This session intends to address the issues to assess spectrum demands for various services and applications, the preparation of national spectrum outlook and a comprehensive spectrum roadmap for long term.*  ***Discussion Topics:***   * Assessing the demands for spectrum bandwidth * Preparation of national spectrum outlook * Developing a comprehensive spectrum roadmap for long term * Industry views * Q&A |
| 10:30 – 10:45 | Coffee/Tea Break |
| 10:45 – 12:00 | **Session 6:  *Meeting the demands for bandwidths - Spectrum outlook and developing spectrum roadmap (Continued)***  *Continue from previous session* |
| 12:30 – 14:00 | Lunch Break |
| 14:00 – 15:30 | **Session 7: *Assessing spectrum management practices - Valuation of radio frequency spectrum***  *The valuation of spectrum, either economically or socially, to support digital transformation can be varied in the context of national connectivity needs, which in turn reflects the policy/regulatory approaches towards licensing, pricing, efficient usage of this scarce resource. This session will review and discuss current principles and practices of licensing and pricing spectrum. It will also analyze the few recent auctions/other licensing mechanism for spectrum assignment for new applications like 5G, private networks and others.*  ***Discussion Topics:***   * Valuation on radio frequency spectrum in national context * Regional and global best practices for valuation * Critical look into the recent spectrum auctions in the region and lesson learned * Industry views * Q&A |
| 15:30 – 15:45 | Coffee/Tea Break |
| 15:45 – 17:15 | **Session 8: *Assessing spectrum management practices - Valuation of radio frequency spectrum (Continued)***  *Continue from previous session* |
| **Time** | **Wednesday, 31 July 2024** |
| 09:00 – 10:30 | **Session 9: *Assessing spectrum management practices – Application of innovative techniques and tools in spectrum management***  *The radio frequency spectrum has been managed and utilized over many decades through a complex regulatory framework and a patchwork of policies. The current methods of assessing spectrum needs are complicated due to the growing level of interdependencies among radiocommunication services and applications. Existing and emerging methods for allocating spectrum are often driven by small studies that suffer from inherent biases. As a result, spectrum policies and usage are often suboptimal and rigid, preventing efficient use of radio frequency spectrum. The allocation of spectrum so far has yielded satisfactory results but as the number of services which require the band increase exponentially, there is a need to shift towards more optimal management techniques using innovative techniques and tools.*  *This session aims to look how different innovative techniques and tools can be used for managing spectrum. Specially it will look into the aspect of using artificial intelligence in spectrum management. Further, it will also look into the aspect of the availability of data on spectrum uses through APT Frequency Information System (AFIS).*  ***Discussion Topics:***   * Application innovative techniques and tools in spectrum management * Experience sharing from member countries * APT Frequency Information System * Q&A |
| 10:30 – 10:45 | Coffee/Tea Break |
| 10:45 – 12:15 | **Session 10: *Key regulatory considerations to the use of spectrum***  *As wireless communication technologies are changing at rapid pace, it is important for the spectrum regulators to ensure the efficient use of radio frequency spectrum for the future. To ensure that many new and innovative ideas on regulatory considerations have recently been focused. Among such are, but not limited to spectrum sharing, license exemption, trading and leasing of spectrum along with traditional considerations such as spectrum repurposing, refarming, harmonization of spectrum at regional and global level as well as cross border coordination.*  *This session aims to analyze those regulatory considerations and initiatives as mentioned above and how those could ensure a spectrum management vision that fit for the future.*  ***Discussion Topics:***   * Discuss the principles of cross-border coordination issues * Experience sharing from member countries * Industry views and Q&A |
| 12:30 – 14:00 | Lunch Break |
| 14:00 – 15:30 | **Session 11: *Key regulatory considerations to the use of spectrum (Continued)***  *Continue from previous session.*  ***Discussion Topics:***   * Long term spectrum vision and policies * Industry views and Q&A |
| 15:30 – 15:45 | Coffee/Tea Break |
| 15:45 – 17:15 | **Session 12: Wrap-up and Closing**   * Summary of the Symposium and the way forward * Closing |