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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | **Document:** |
| **Meeting of the SATRC Working Group on Spectrum** | **SAPVII-SPEC1/OUT-04** |
| 11 – 12 June 2019, Tehran, Islamic Republic of Iran | 12 June 2019 |

SATRC Working on Spectrum

**WORK PLAN FOR THE WORK ITEMS**

Following workplan are proposed to be considered for the meeting of the SATRC Working Group on Spectrum:

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| **Work Item**  | **Assessment of current practices in spectrum management and developing spectrum roadmap** |
| **Rapporteur(s)** | Mrs. Roja Kiran Basukala/ Mr. Hiranya Prasad Bastakoti/ Dr. Pradip Paudyal(NTA) and Mr. Sebghatullah Andar(WG Vice- Chairman)/ Mr. Fahimullah Shagiwal (ATRA) |
| **Output** | Report / Guideline / Recommendation |
| **Background and Purpose** | Wireless technology is evolving rapidly and spectrum management practices need to be modified as per time demand - with clear formulation of spectrum roadmaps.To ensure that consumers and businesses have access to new wireless technologies and new services are introduced in timely manner. SATRC countries have put in place several spectrum management practices and strategies. However, this is becoming more challenging due to the pace of development in technology and services. In addition, the implementation of spectrum management framework and allocation often take a considerable amount of time to take effect.A spectrum roadmap is essential to ensure there is enough spectrum to meet surging demand for mobile services. Development of Spectrun Roadmap is required to SATRC members to forecast future and increase certainty about the regulators future allocation plans and spectrum managementTherefore, it is imperative to assess the current spectrum management practices in SATRC countries and review it for further improvement by developing a spectrum Roadmap. |
| **Scope** | This work item shall assess current practices of spectrum management framework in SATRC countries. The study shall also include an analysis of the inventory of spectrum management to assess spectrum allocation, spectrum assignment procedures, spectrum pricing, spectrum monitoring, international frequency co-ordination, spectrum engineering, spectrum refarming, organizational framework etc. in SATRC countries. The study shall also develop -spectrum Roadmap to meet surging demand of mobile services and to forecast future spectrum allocation plans for spectrum management.  |
| **Time Frame** | * Drafting the questionnaire by lead experts (May.2019)
* Circulation of the questionnaire to WG experts (June….2019)
* Response to the questionnaires (September…….2019)
* Development of the interim Report ( November………2019)
* Discussion on the interim report and comments by experts (January………..2020)
* Update of the interim report and development of the first draft of the final Report (March…….2020)
* Consideration of the first draft of the final Report at the 2nd Meeting of the WG (May…….2020)
* Consideration of the second draft of the final Report (August 2020)
* Draft final report (October…..2020)
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| **Utilization of Output** | Policy makers, Regulators and Service providers |

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| **Work Item**  | **Spectrum re-farming** |
| **Rapporteur(s)** | Mr. S.T. Abbas (WG Chairman)/ Mr. Pramod Kumar/ Ms. Rachna Mathur (TRAI) and Mrs. Roja Kiran Basukala/ Mr. Hiranya Prasad Bastakoti/ Dr. Pradip Paudyal(NTA)and SyedaShafaq Karim (PTA) |
| **Output** | Report / Guideline / Recommendation |
| **Background and Purpose** | With the current advancement in mobile communication technologies, current mobile broadband networks offer much higher spectrum efficiency compared with traditional GSM and CDMA (2G) systems. There is global trend of switching off 2G Networks gradually with the increase in mobile broadband networks. Some Regulators have adopted technology neutral principles in those bands. While implementing technology neutral in traditional technology specific frequency bands, refarming dying technology specific bands like GSM, CDMA, WiMAX etc. is a natural solution for mobile broadband coverage.Refarming is a strategy where telecom service providers reuse their frequency resources to introduce latest radio communication technologies to improve the spectral efficiency and data throughput. For example 900 MHz refarming solution is that service providers free about 5 MHz of GSM in 900 MHz band and deploy UMTS or LTE in 900 MHz Band.-Spectrum refarming requires careful planning and management to guarantee a smooth transition to mobile broadband networks. To solve this issue, this study will look into following areas: - Spectrum Migration Strategy - Technical Methods to re-arrange existing traditional spectrum bands |
| **Scope** | The suggested scope of study can include the following:* + Review status of traditional technology specific bands usage within SATRC members.
	+ Technical methods to re-arrange existing technology specific spectrum bands.
	+ Migration strategy, including possible dying out technology Network Switch Off time frame.
	+ Case studies of several successful re-farming.
	+ Other inputs can be included here based on feedback from SATRC members
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| **Time Frame** | * Drafting the questionnaire by lead experts (May…….2019)
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| **Utilization of Output** | Policy makers, Regulators and Service providers |

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| **Work Item**  | **Spectrum considerations for the deployment of IoT** |
| **Rapporteur(s)** | Ms. Maryam Espandar(WG Vice- Chairman)/Mr. Adib Kamrani / Ms. Zahra Mortazavi (CRA) and Lt. Col. Md Aminul Hoque/ Mohammad Farhan Alam (BTRC), Pakistan Telecommunications Authority (PTA) |
| **Output** | Report / Guideline / Recommendation |
| **Background and Purpose** | Internet of Things (IoT) which is driving the next big acceleration in the volume of connected devices is leading the need for more spectrum. The number of devices and the nature of traffic will thus require far more spectrum than is available today for both narrowband and broadband IoT. Also, there is a need for greater harmonization of licensed and unlicensed band choice. Having to implement fewer bands lowers device cost, which in turn lowers the bar for mass-market acceptance. The purpose of work item is encouragement of SATRC members to conduct the appropriate studies on spectrum requirement for the Internet of Things (IoT) by focusing on the following issues and share their information with other members:* Current spectrum situation (licensed and unlicensed bands) and regulations of IoT in SATRC countries
* Identification of new frequency bands for IoT
* New technologies and standards for IoT
* Modification of existing regulations
* Harmonization of frequency bands of IoT
* WRC-19 Outcomes

Future plan of SATRC countries regarding the Spectrum Requirement for IoT |
| **Scope** | The report shall address issues mentioned above regarding the spectrum requirement for the Internet of Things (IoT) |
| **Time Frame** | * Drafting the questionnaire by lead experts (May…….2019)
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| **Utilization of Output** | Policy makers, Regulators and Service providers |