3GPP TSG-RAN WG4 Meeting #116bis R4-251xxxx

Prague, Czech Republic, Oct. 13-17, 2025

**Agenda item:** 8.1

**Source:** Feature lead (CMCC)

**Title:** Coffee break discussion for [116bis][108] 6G spectrum sharing

**Document for:** Information

Online agreements

MRSS should be considered in the ultimate RAN4 decision, including RAN4’s input to interim milestone.

Regarding some of the system parameters (e.g. SCS, sync raster, channel raster etc.), separated agenda will be designated for the scenairos of with (in spectrum sharing) and without (in system parameter) MRSS considered.

* If feasible, RAN4 strives to define unified system parameters for the scenarios with and withtout MRSS.
* Revisit this agenda arrangement after Feb. meeting in 2026 for potentially merging the discussion under the single agenda.

Before RAN4 recevies concrete design from RAN1/2, RAN4 discussion will be based on the agreed hypothesis.

## **Issue 1: System parameters which are impacted by MRSS**

Taking following table as starting point to discuss which system parameters are impacted by MRSS.

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| --- | --- |
| **System parameters** | **Whether impacted by MRSS** |
| Numerology | Yes |
| Channel raster | Yes |
| Sync raster | Yes? |
| Waveform | Yes? |
| Modulation | Yes? |
| Channel bandwidth | Yes? |

## **Issue 2: Operating frequency range or band for 6G-5G MRSS**

* Proposals from companies:
  + Option 1 (Apple):
* RAN4 should prioritize 6G-5G MRSS in FR1.
* Prefer not to support MRSS in FR2 or treat it with low priority.
  + Option 2 (Samsung): RAN4 to focus on FR1 bands in MRSS discussion.
  + Option 3 (CMCC):
* For MRSS between 6GR and NR, it is proposed to focus on legacy bands where there is commercial NR deployment in FR1. FFS whether to consider MRSS for FR2-1.
* For the legacy bands where there is no commercial NR deployment e.g. U6G, and new 6G spectrum, no need to consider MRSS
* it is proposed to support MRSS in both TDD and FDD
  + Option 4 (CATT): both co-located and non co-located scenario should be considered
  + Option 6 (Xiaomi):
* On spectrum sharing, focus on MRSS between 5G and 6G case in both FR1 (400MHz ~ 7.125GHz) and FR2-1 (24.25GHz ~ 52.6GHz)
  + Option 7 (Spreadtrum, UNISOC): Co-existence between 5G and 6G for MRSS should be considered, we can focus on FR1 bands.
  + Option 8 (OPPO): 5G-6G MRSS operation priority on FR1 up to 7.125GHz spectrum, FR2-1 (24.25 GHz – 52.6GHz) can be considered base on the interest of industry
* Discuss following points:
* RAN4 prioritize 6G-5G MRSS in FR1
* FFS whether to consider 6G-5G MRSS in FR2-1
* No need to consider MRSS for legacy bands where there is no commercial NR deployment e.g. U6G, and new 6G spectrum

## **Issue 3: Migration scheme**

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| **SID on 6G radio (RP-252912)**  (7) Migration from 5G NR to 6GR as well as interworking and mobility between 5G NR and 6GR:   1. 5G-6G Multi-RAT Spectrum Sharing for migration [RAN1, RAN2, RAN4, RAN3] 2. Study if any additional migration option(s) is needed (other than standalone, MRSS, and inter-RAT mobility between NR-6G). [RAN] [RAN2, RAN1, RAN3, RAN4] RAN plenary starts this study in March 2026 and will make a decision by September 2026 whether to expand WG SI scope to cover additional migration option(s). 3. Mobility between 5G NR and 6GR [RAN2, RAN3, RAN4]   Note: Inclusion of LTE/6G interworking/coexistence aspects may be further discussed based on the requirement from RAN plenary |

* Discuss following points:
* RAN4 focus on MRSS between 6GR and NR
* RAN4 focus on inter-RAT mobility between 6GR and NR
* FFS spectrum sharing between 6GR and NB-IoT, spectrum sharing between 6GR and eMTC.
* Other migration scheme, e.g. dual stack, is up to RAN plenary decision