3GPP TSG-RAN WG4 Meeting #111 R4-2410259

Fukuoka City, Fukuoka , Japan, 20th – 24th May, 2024

**Agenda item:** 7.4.5

**Source:** Moderator (Apple)

**Title:** WF for [111][205] NR\_RRM\_enh3\_part1

**Document for:** Approval

# Topic #1: Core part maintenance (7.4.1)

**Issue 1-1: Applicability of multiple SCell activation with L3 reporting on FR1 and FR2 band**

Agreement:

* + For FR1, L3 reporting based multiple SCell activation requirements are applicable to unknown target SCell activation when there is no contiguous active serving cell or there is no contiguous known SCell(s) to the unknown to-be-activated SCell on the FR1 band.
		- This condition will be added section 8.3.18.
	+ For FR2, L3 reporting based multiple SCell activation requirements are applicable to unknown target SCell activation when there is no active serving cell or there is no known SCell(s) on the same band.
		- This condition will be added section 8.3.18.

**Issue 1-2: Multiple SCell activation requirement with L3 reporting based on issue 1-1**

* + - Discuss directly in the CR.

**Issue 1-3: L3 reporting in multiple SCell activation**

Agreement:

* From the UE perspective, UE reports valid L3 reporting for the to-be-activated SCell(s), regardless same or different measurement results.
* Form the NW perspective, if receiving the L3 reporting, it is up to NW to pick the measurement results to accelerate the SCell activation procedure.
* No specification impact for the above clarifications.

**Issue 1-4: Other issues related with FR1 SCell activation enhancement**

* FFS following proposals:
	+ Proposal 1:
		- RAN4 to discuss if measurement period shall be considered as a condition to differentiate the requirements for FR1 SCell activation enhancement with L3 report.
		- Like the legacy FR1 known SCell activation, SCell activation delay requirement with L3 report shall be differentiated according to measurement period below or above 2400ms, and decide if AGC refinement or T/F tracking is needed.
	+ Proposal 2:
		- RAN4 also consider applying enhancements of L3 reporting during SCell activation in FR1 to the case when only one SSB is transmitted in *ssb-PositionInBurst*.
		- RAN4 further extend the requirement applicability of 8.3.17 and 8.3.18 to the scenarios in FR1 where only one SSB is considered. If only one SSB is considered, Tuncertainty\_MAC, Tuncertainty\_SP, Tuncertainty\_RRC and TRRC\_delay are counted as zero, and the 3ms MACE CE decoding delay for TCI state activation is removed, i.e. the overall delay Tactivation\_time is 7ms + TL3,report+ THARQ + TFineTiming + 2ms.

# Topic #2: RRM performance requirements for FR2 SCell activation delay reduction (7.4.3)

**Issue 2-1: whether to verify requirement with L1 report for FG31-1 TC**

Agreement:

* TE sends TCI activation CMD after L3 report
	+ If DCI is scheduled within the time margin, UE is required to respond with the L3 report as long as there is a valid measurement result regardless whether there is L1 reporting before n+3ms+THARQ+M.

**Issue 2-2: DCI transmission timing for case 2 in FG31-1 TC**

Agreement: DCI transmission for case 2 is n+7ms+ THARQ.

**Issue 2-3: FG31-1 TC for CSSF2**

Agreement: Clarify the applicability rule that for UE supporting two PUCCH group, UE is required to pass TC#2 in the agreed TC list (R4-2403466).

**Issue 2-4: others for FG31-1 TC**

* FFS:
	+ RAN4 to include SR transmission in the test case for L3 report based fast SCell activation test case