3GPP TSG RAN WG4 Meeting #111 R4-241xxxx

Fukuoka, Japan, 20 May 2024 – 24 May 2024

**Title: Reply LS on LTM L1 intra and inter-frequency measurements**

**Response to: R2-2404014**

**Release: Rel-18**

**Work Item: NR\_Mob\_enh2-Core**

**Source: RAN4**

**To:** **RAN2**

**Cc: RAN1**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

**Attachments:** NA

# 1 Overall description

RAN4 would like to thank RAN1 for the LS. RAN4 discussed whether the intra-frequency and inter-frequency L1 measurement and reporting features (45-1 and 45-1a) are prerequisites to support intra-frequency and inter-frequency LTM and kindly asks RAN1 to consider following agreements for their future specification work.

As part of RAN4 requirements, RAN4 introduced requirements for

* Early TCI state activation
* PDCCH ordered RACH
* LTM cell switch delay

RAN4 analysed the dependency of L1 measurement and measurement reporting on the above requirements and would like to inform RAN2 the following

In FR1, RAN4 cell switch delay requirements, PDCCH ordered RACH requirements, Early TCI state activation requirements do not always depend on whether L1 measurement and L1 measurement report is available or not. In certain conditions LTM requirements work without L1 measurement and measurement report.

In FR2, dependency of RAN4 cell switch delay requirements, PDCCH ordered RACH requirements, Early TCI state activation requirements on L1 measurement and L1 measurement report is under discussion.

RAN4 also discussed the Q2 and would like to clarify that RAN4 features 39-1, 39-2, 39-3-1, 39-3-2, 39-3-3, 39-3-4, 39-3-5, 39-3-6 related to 45-1 and 45-1a are [BC of current serving cells]

# 2 Actions

**To RAN1**

**ACTION:** RAN4 respectfully asks RAN2/1 to take the above into their speciation work

# 3 Dates of next TSG RAN WG 4 meetings

TSG RAN WG4 Meeting #112 19 to 23, Aug. 2024 Maastricht, Netherlands

TSG RAN WG4 Meeting #112bis 14 to 18, Oct. 2024 TBD, China