3GPP TSG RAN WG2 Meeting #113bis-e R2-2104377

Electronic, 12th Apr – 20th Apr 2021

**Title:** LS on multiple TACs per PLMN

**Response to:**

**Release:** Release 17

**Work Item:** NR\_NTN\_solutions-Core

**Source:** RAN2

**To:** CT1, SA2

**Cc:** RAN3

**Contact person:** Xun TANG

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

**Attachments:** None

# 1 Overall description

RAN2 has discussed the tracking area update procedure aiming to support Earth fixed tracking area, and has made the following agreements:

* The network may broadcast more than one TACs per PLMN in a cell.
* When the network stops broadcasting a TAC, the UE needs to know it.
* RAN2 assume UE does not do TAU if one of the currently broadcasted TAC belongs to UE’s registration area.
* RAN2 confirm that in NTN when TAC change in SI happens is up to network implementation, i.e. it may not exactly sync up with real-time illumination on ground.

To follow the principle “the AS shall report tracking area information to the NAS” specified in TS 38.304, RAN2 has discussed the following two options:

* Option 1: AS still reports only one TAC for one PLMN even if more than one TACs per PLMN are broadcasted in an NTN cell.
* Option 2: AS indicates all received TAC(s) for one PLMN to NAS layer.

RAN2 would like to inform CT1 and SA2 that majority of companies think option 1 has larger RAN2 impact, as AS layer has to select one TAC from the broadcast ones to report to NAS layer, thus RAN2 has preference for option 2.

RAN2 would then like to ask the following question to CT1:

* Is option 2, i.e. “AS indicates all received TAC(s) for one PLMN to NAS layer”, feasible from a NAS layer perspective?

# 2 Actions

**To CT1:**

**ACTION:** CT1 is kindly requested to take the above information into account and respond to RAN2’s question.

**To SA2:**

**ACTION:** SA2 is kindly requested to take the above information into account and provide feedback, if any.

# 3 Dates of next TSG RAN WG2 meetings

TSG RAN WG2 Meeting #114-e 19 May – 27 May 2021, Electronic