3GPP TSG-RAN WG2 Meeting #115 Tdoc R2-2108900

Electronic, August 9th - 13rd 2021

Agenda: 8.10.3.3

Source: Ericsson

Title: [AT115-e][103][NTN] CHO and NTN -TN mobility aspects (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

This feature summary for 8.10.3.3 includes

1. include proposals to further progress on CHO

2. the discussion on TN/NTN service continuity

**[AT115-e][103][NTN] CHO and NTN -TN mobility aspects (Ericsson)**

Updated scope: Continue the discussion on the remaining proposals from [R2-2109056](file:///C%3A%5C%5CData%5C%5C3GPP%5C%5CRAN2%5C%5CInbox%5C%5CR2-2109056.zip%22%20%5Co%20%22C%3AData3GPPRAN2InboxR2-2109056.zip)

Intended outcome: Summary of the offline discussion with e.g.:

  List of proposals for agreement (if any)

  List of proposals for further discussion

  List of proposals that should not be pursued (if any)

Updated deadline (for companies' feedback): Monday 2021-08-23 1400 UTC

Updated deadline (for rapporteur's summary in R2-2108900): Monday 2021-08-23 1600 UTC

Proposals marked "for agreement" in R2-2108900 not challenged until Tuesday 2021-08-24 0800 UTC will be declared as agreed via email by the session chair (for the rest the discussion might continue online during the CB session).

Status: Ongoing

SMTC and measurement gap related discussion is not in this summary.

# 3 TN NTN mobility

### Idle mode

It is noted that the previous question did not address well the earlier RAN2 agreement

Related agreement from RAN2114:

1. For idle mode reselection, based on configuration NTN UE can prioritise TN over NTN. Configuration details FFS

Agreement from this meeting:

In order to try to progress for prioritizing TN over NTN and finding exact solutions we list here some suggestions. These are principle direction and not exact solutions. Exact solutions can be discussed towards, or in next meeting.

Option 1 It is ”hard” coded in the specification, e.g. in 38.304, that UE always prioritizes TN cell in cell reselection FFS, if prioritizing happens in measurement stage, cell ranking, or prior to selecting the suitable cell.

Option 2 Indicate in system information of TN or NTN cell or both, the need to prioritize TN in the area the NTN/TN cells are covering. FFS, if prioritizing happens in measurement stage, cell ranking, or prior to selecting the suitable cell.

Option 3 Broadcast in system informtion a TN or NTN specific offset to be applied to RSRP measurement result for cell quality.

Option 4 UE’s relaxed measurement mode is impacted to prioritize TN. For example, if UE detects TN cell UE stops any relaxed measurement mode for TN UE might have applied. Or, UE is in relaxed mode only if it meets relaxed criteria in both TN and NTN.

**Question 1 Please preference which option as principle direction RAN2 continues to discuss? More than one direction can be chosen for FFS**

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| **Company** | **Option 1** | **Option 2** | **Option 3**  | **Option 4** | **Comments** |
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Another topic that has been raised is UE power consumption especially if TN has spotty coverage in an NTN area.

Here again, we present prinsiple direction that can be chosen with details FFS. More than one direction can be chosen.

Option1 UE is informed in system informtion about coverage of TN network e.g. in similar manner as NTN Ephemeris.

Option2 UE applies measurement relaxations if spotty coverage of TN is found. FFS how it is known.

**Question 2 Please preference which option as principle direction RAN2 continues to discuss? More than one direction can be chosen for FFS**

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| **Company** | **Option 1** | **Option 2** | **Other comments**  |
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# 4 Conclusions

RAN2 has agreed to further work with the following principle to TN prioritization: