**3GPP TSG-RAN WG2 Meeting #118-e *R2-220xxxx***

**Electronic, 9th May – 20th May 2022**

Agenda Item: 7.2.1.2

Source: Ericsson (rapporteur)

Title: [AT118-e][055][IOT NTN] Stage-2 CR 36300 (Ericsson)

Document for: Discussion, Decision

[R2-2205864](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_118-e%5CDocs%5CR2-2205864.zip) IoT NTN Stage 2 corrections Ericsson, Eutelsat draftCR Rel-17 36.300 17.0.0 LTE\_NBIOT\_eMTC\_NTN Late

* QC think some details were provided by R1, should be really change those. Ericsson think that the R1 text was very detailed and duplicates the R1 TS.
* Ericsson think R1 didn’t do a good job when developing this text
* Review offline (Chair: maybe R1 delegates can participate)
* [AT118-e][055][IOT NTN] Stage-2 CR 36300 (Ericsson)

 Scope: In a first phase review proposed rapporteur modifications, e.g. for the RAN1 TP.

 Intended outcome: Agreeable draft (agreed CR in the end)

 Deadline: Set by Rapporteur (if possible progress offline only).

This document will contain a list of comments made during the review of the Stage 2 CR for IoT NTN and proposed resolutions.

The issues list is organized according to the spec sections so that companies can track comments from other companies and provide their views (and to eliminate duplicate comments).

Companies are encouraged to provide the input in the correct section. If a section is missing, add it at the correct location.

DO NO EDIT IN THE RUNNING CR.

Deadline for first phase is Monday 16th of May at 07.00 UTC.

## 3.1 Definitions

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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## 4.12 Support of Non-Terrestrial Networks

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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### 23.21.1 General

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.2.1 Scheduling timing

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
| Intel 01 | the description of Common TA is not correct | - $Common TA$ is a configured offset that corresponds to ~~half~~ ~~the~~ the RTT between the RP and the NTN payload.Common TA corresponds to the whole RTT between RP and NTN payload, not half of it. |  |
| Intel 02 | the description of $K\_{mac}$ is not correct | $K\_{offset}$ is a configured scheduling offset that approximately corresponds to the sum of the service link RTT and the common TA.In the original wording, “TA” seems to be removed unintentionally. |  |
| Qualcomm |  | There seems to be some confusion. The changes associated with the correction are fine to us in the draft. But removing the correct part that was added by RAN1 is not OK. In our understanding, it contains some general information that is very useful for readers across all 3GPP groups and who do not track RAN1 specs.For example, following text added by RAN1 but your proposed to remove is important. It is not just clear by reading RAN1 spec. “*For initial access, the information of* $K\_{offset}$ *is carried in system information. Update of* $K\_{offset}$ *after initial access is supported. The UE-specific* $K\_{offset}$ *can be provided and updated by the network with MAC CE*.”If you want to remove, you can definitely ask RAN1 to remove what are redundant, that is fine as this was added by RAN1. Let them decide.We have done same for NR NTN in the stage 2. Nobody asks to remove it. |  |

#### 23.21.2.2 Pre-compensation by the UE

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
| Xiaomi 1 | The following sentence “UE shall acquire its GNSS position as well as the satellite ephemeris and common TA before connecting to an NTN cell” is not align with RRC spec: “If s*ystemInformationBlockType31* (*systemInformationBlockType31-NB* in NB-IoT) is broadcast, a RRC connection is initiated only if the UE has a valid GNSS position.NOTE: The UE may need to re-acquire the GNSS fix before establishing the connection to avoid interruption during the connection.” | “UE shall acquire its GNSS position as well as the satellite ephemeris and common TA before connecting to an NTN cell” is rewording to““UE shall have valid GNSS position as well as the satellite ephemeris and common TA before connecting to an NTN cell”” |  |
| Qualcomm |  | The changes associated with the correction are fine to us in the draft. But removing the correct part that was added by RAN1 is not OK. In our understanding, it contains some general information that is very useful for readers across all 3GPP groups and who do not track RAN1 specs.If you want to remove, you can definitely ask RAN1 to remove what are redundant, that is fine as this was added by RAN1. Let them decide.We have done same for NR NTN in the stage 2. Nobody asks to remove it. |  |

### 23.21.3 Support of discontinuous coverage

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.4.1 Mobility Management in ECM-IDLE

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.4.2 Mobility Management in ECM-CONNECTED

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.5.1 Definitions

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.5.2 Assumptions

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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#### 23.21.5.3 Procedures

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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### 23.21.6 Signalling

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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### 23.21.7 MME(Re-)Selection by eNB

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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### 23.21.8 O&M Requirements

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| CompanyIssue number | Brief description of the issue | Suggested resolution/company comments | Proposed way forward by rapporteur  |
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Annex P (informative):
Example implementation of Non-Terrestrial Networks

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