**3GPP TSG-RAN WG2 #126 *R2-2405840***

**Fukuoka, Japan, May 20 – May 24, 2024**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **CRNum** | **rev** | **-** | **Current version:** |  |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | SON/MDT corrections for 38.300 |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_ENDC\_SON\_MDT\_enh2-Core |  | ***Date:*** | 2024-05-22 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-18 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Stage-2 specification is not aligned with the stage-3 procedures agreed during Rel.18 |
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| ***Summary of change:*** | Clarifications on SON for NR-U, and SHR |
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| ***Consequences if not approved:*** | Stage-2 specification is not aligned with the stage-3 procedures agreed during Rel.18. |
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| ***Clauses affected:*** | 15.5.2.7, 15.5.3 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

*First Change*

#### 15.5.2.7 Successful HO

One of the functions of Mobility Robustness Optimization is to detect a sub-optimal successful handover event. The aim is to identify underlying conditions during successful ordinary handovers, successful DAPS handovers, or successful Conditional handovers.

For analysis of successful handover, the UE may collect Successful Handover Report (SHR) based on configuration by network, if stored, and makes the SHR available to the network as specified in TS 38.331 [12]. The UE stores the SHR until it is fetched by the network or for 48 hours after the SHR is recorded.

For SHR collected during intra-NR handover, if the target NR node fetches the SHR from the UE and the trigger of SHR is T310/T312, it may forward the information to the source NR node, i.e. the node handling the cell reported as source cell in this SHR, by using the ACCESS AND MOBILITY INDICATION message over Xn or by means of the Uplink RAN configuration transfer procedure and Downlink RAN configuration transfer procedure over NG.

If the NG-RAN node that fetches the SHR from the UE is neither the source node nor the target node of the handover, it forwards the information to the node(s) which configured the SHR trigger causing the SHR to be generated, by using the ACCESS AND MOBILITY INDICATION message over Xn or by means of the Uplink RAN configuration transfer procedure and Downlink RAN configuration transfer procedure over NG.

In case of failure shortly after successful Handover, the same mobility event may generate both a SHR and a RLF report. In this case, the node(s), which configured the SHR trigger causing the SHR, may take the duplication into account e.g. ignore the SHR.

Upon retrieval of an SHR, the receiving node may analyse whether its mobility configuration needs adjustment.

The SHR report can be used to detect one case of Intra-system Too Late Handover, namely when DAPS HO is configured but an RLF is detected in the source cell during a successful DAPS HO.

The SHR report can be collected for intra-NR handover and for handover from NR to E-UTRA.

*Second Change*

### 115.5.3 Support for RACH Optimization

RACH optimization is supported by UE reported information made available at the NG RAN node as specified in TS 38.331 [12] and by PRACH parameters exchange between NG RAN nodes.

The contents of the RA Report comprise of the following:

- Contention detection indication per RACH attempt;

- Indexes of the SSBs and number of RACH preambles sent on each tried SSB listed in chronological order of attempts;

- Indication whether the selected SSB is above or below the configured RSRP threshold per RACH attempt;

- 2-step RACH information as specified in clause 5.7.10.4 of TS 38.331 [12].

- Indication of LBT failures detected during the random access

**SN RA Reports**

The UE may also support collection of SN RA Reports.

The SN RA report retrieval and forwarding is specified in TS 37.340 [21].