**3GPP TSG-RAN WG2 Meeting #113bis-e *R2-210xxxx***

**Electronic, April 12 – April 20, 2021**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **36.331** | **CR** |  | **rev** | **-** | **Current version:** | **16.4.0** |  |
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| *For* [***HELP***](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 |  | Core Network |  |

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| ***Title:***  | Correction on the initiation of RNA update |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | LTE\_5GCN\_connect-Core |  | ***Date:*** | 2021-04-15 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | According to the current spec of TS 36.331 (5.3.16.4 and 5.3.17.2), the UE may initiate RNA update when barring is alleviated for Access Category '8'. However, according to the following context in TS 36.331 5.3.3.2, access category ‘2’ can also be used for unified access control for RNA update. Therefore, the barring alleviation of access category ‘2’ should also trigger RNA update.1> else if the resumption of the RRC connection is triggered due to an RNAU:2> if an emergency service is ongoing:3> select '2' as the Access Category;3> set the *resumeCause* to *emergency*;2> else:3> select '8' as the Access Category;2> perform the unified access control procedure as specified in 5.3.16 using the selected Access Category and one or more Access Identities to be applied as specified in TS 24.501 [95];3> if the access attempt is barred:4> set the variable *pendingRnaUpdate* to 'TRUE';4> the procedure ends; |
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| ***Summary of change:*** | Add the barring alleviation of Access Category '2' to the initiation for RNA update in both 5.3.16.4 and 5.3.17.2.**Impact analysis****Impacted functionality:**RNA update**Inter-operability:**The CR only impacts UE behavior and the network does not have to implement it. So, there is no inter-operability issue.Implementation of this CR from Rel-15 will not cause interoperability issues. |
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| ***Consequences if not approved:*** | The UE may not re-initialize the pending RNAU if the original RNAU procedure is barred due to access attempt failure of access category 2. Then, the network may consider the UE leaving the INACTIVE state. As a consequence, the connection resume procedure (e.g. for UL data transmission) will fail and result in some performance lost. |
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| ***Clauses affected:*** | 5.3.16.4, 5.3.17.2, Annex G |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **x** |  Test specifications |  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

START OF CHANGE#1

#### 5.3.16.4 T302, T309 expiry or stop (Barring alleviation)

Except for NB-IoT, if the UE is connected to 5GC, the UE shall:

1> if timer T302 expires or is stopped:

2> for each Access Category for which T309 is not running:

3> consider the barring for this Access Category to be alleviated:

1> else if timer T309 corresponding to an Access Category other than '2' expires or is stopped, and if timer T302 is not running:

2> consider the barring for this Access Category to be alleviated;

1> else if timer T309 corresponding to the Access Category '2' expires or is stopped:

2> consider the barring for this Access Category to be alleviated;

1> When barring for an access category is considered being alleviated:

2> if the Access Category was informed to upper layers as barred:

3> inform upper layers about barring alleviation for the Access Category;

2> if barring is alleviated for Access Category '8'; or

2> if barring is alleviated for Access Category '2':

3> perform actions specified in 5.3.17;

For NB-IoT, if the UE is connected to 5GC, the UE shall:

1> if timer T309 expires or is stopped for one Access Category:

2> consider the barring for this Access Category to be alleviated;

2> if the Access Category was informed to upper layers as barred:

3> inform upper layers about barring alleviation for the Access Category;

END OF CHANGE#1

START OF CHANGE#2

#### 5.3.17.2 Initiation

When in RRC\_INACTIVE state, the UE shall:

1> if T380 expires, or:

1> if RNA Update is triggered at reception of *SystemInformationBlockType1*, as specified in 5.2.2.7:

2> initiate RRC connection resume procedure in 5.3.3 with cause value set to 'rna-Update';

1> if barring is alleviated for Access Category '8' or Access Category '2', as specified in 5.3.16.4:

2> if upper layers do not request RRC the resumption of an RRC connection, and

2> if the variable *pendingRnaUpdate* is set to 'TRUE':

3> initiate RRC connection resume procedure in 5.3.3 with cause value set to 'rna-Update';

If the UE in RRC\_INACTIVE state fails to find a suitable cell and camps on the acceptable cell to obtain limited service as defined in TS 36.304 [4], the UE shall:

1> perform the actions upon leaving RRC\_INACTIVE as specified in 5.3.12 with release cause 'other'.

END OF CHANGE#2

START OF CHANGE#3

Annex G (normative): List of CRs Containing Early Implementable Features and Corrections

This annex lists the Change Requests (CRs) whose changes may be implemented by a UE of an earlier release than which the CR was approved in (i.e. CRs that contain on their coversheets the sentence "Implementation of this CR from Rel-N will not cause interoperability issues").

**Table G-1: List of CRs Containing Early Implementable Features and Corrections**

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| **TDoc Number (RP-xxxxxx): CR Title** | **CR Number(s)** | **CR Revision Number(s)** | **Earliest Implementable Release** | **Additional Information** |
| RP-181233: Successful acknowledgement of RRCConnectionRelease for BL and CE UE | 3324 | 1 | Release 13 | *RRCConnectionRelease* message, for which the poll bit is not set, can be considered succesfully acknowledged when UE has sent HARQ ACK feedback. |
| RP-182674: CR for T312 on LTE HetNet mobility | 3506 | 5 | Release 12 | Remove T312 in leaving condition for event trigger. |
| RP-182671: Corrections on paging monitoring and SI acquisition in RRC\_CONNECTED for BL UEs and UEs in CE | 3647 | 2 | Release 13 |  |
| RP-190548: Update description of ack-NACK-NumRepetitions | 3899 | 2 | Release 13 |  |
| RP-190548: Corrections of NB-IoT Access Barring | 3900 | 2 | Release 13 |  |
| RP-191382: SI update notification and access barring in NB-IoT | 4020 | 2 | Release 13 |  |
| RP-192195 : Correction on handling of SCell(s) during Make Before Break handover | 3986 | 3 | Release 14 |  |
| RP-192940: Stop using redirectedCarrierOffsetDedicated after reselection to another frequency | 4144 | 1 | Release 14 |  |
| RP-200338: Corrections to T312 and Discovery Signals measurement | 4198 | 1 | Release 12 |  |
| RP-200367: Correction on H1 and H2 events | 4103 | 2 | Release 15 |  |
| RP-201166: Allowing PDCP version change without handover | 4262 | 2 | Release 15 |  |
| RP-201166: upperLayerIndication enhancements | 4266 | 3 | Release 15 |  |
| RP-201192: Relaxed serving cell measurement for UEs using WUS | 4344 | - | Release 15 |  |
| RP-202780: Corrections to the field descriptions for TDD/FDD capability differentiation, and to nMaxResource value range | 4389 | 5 | Release 12 | The CR corrects multiple UE capability field descriptions introduced in various releases, the changes are early implementable back to the release in which the corresponding capability was introduced. |
| RP-202789: Correction on uac-AC1-SelectAssistInfo | 4488 | 2 | Release 15 |  |
| RP-xxxxxx: Correction on the initiation of RNA update |  | - | Release 15 |  |
| NOTE 1: In case a CR has mirror CR(s), the mirror CR(s) are not listed.NOTE 2: The Additional Information column briefly describes the content of a CR in cases where the CR title may not be descriptive enough. If the CR title is descriptive enough, then the Additional Information column may be left blank. |

END OF CHANGE#3