**3GPP TSG-RAN2 Meeting # 115-e electronic R2-21xxxxx**

**Online, 16 – 27 August 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.331** | **CR** | **-** | **rev** | **-** | **Current version:** | **16.5.0** |  |
|  | | | | | | | | |
| *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:*** | CR to 38.331 on correcting Rel-15 failure type definition | | | | | | | | | |
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| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16 | | | | |  | ***Date:*** | | | 2021-08-25 |
|  |  | | | |  | |  | | |  |
| ***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 can be 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | For a R16 UE, it may report “failureType-r15=other-r16 AND failureType-v1610” to R15 eNB (R15 eNB+R16 gNB for EN-DC), because the UE may trigger the R16 failureType. For R15 eNB, it will cause a transfer syntax error if receiving an SCGFailureInformationNR message with a “failureType-r15 = other-r16”. The transfer syntax error will lead to a big challenge for the network and it will lead to lots of problems, e.g. user experience, network capacity, problem identification. | | | | | | | | |
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| ***Summary of change:*** | | Add clarifications that if the UE sets the failureType-v1610, it is up to UE implementation how to set the value (except the value other) in failureType.  **Impact Analysis**  Impacted 5G architecutre options: (NG)EN-DC, NE-DC, NR-DC  Impacted functionality:  SCG failure information  Inter-operability:  If the network is implemented according to the CR and the UE is not, the R15 eNB will detect a transfer syntax error and then discard the SCGFailureInformation message.  If the UE is implemented according to the CR and the network is not, there is not inter-operability issue.  **The CR is considered mandatory to support the impacted functionality.** | | | | | | | | |
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| ***Consequences if not approved:*** | | The value other-r16 will lead to a transfer syntax error at R15 eNB. | | | | | | | | |
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| ***Clauses affected:*** | | 5.7.3.3 | | | | | | | | |
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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:*** | |  | | | | | | | | |

#### 5.7.3.3 Failure type determination for (NG)EN-DC

The UE shall set the SCG failure type as follows:

1> if the UE initiates transmission of the *SCGFailureInformationNR* message due to T310 expiry:

2> set the *failureType* as t310-Expiry;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message due to T312 expiry:

2> set the *failureType-v1610* as t312-Expiry;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message to provide reconfiguration with sync failure information for an SCG:

2> set the *failureType* as *synchReconfigFailureSCG*;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message to provide random access problem indication from SCG MAC:

2> if the random access procedure was initiated for beam failure recovery:

3> set the *failureType-v1610* as *beamFailureRecoveryFailure*;

2> else:

3> set the *failureType* as *randomAccessProblem*;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message to provide indication from SCG RLC that the maximum number of retransmissions has been reached:

2> set the *failureType* as *rlc-MaxNumRetx*;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message due to SRB3 integrity check failure:

2> set the *failureType* as *srb3-IntegrityFailure*;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message due to Reconfiguration failure of NR RRC reconfiguration message:

2> set the *failureType* as *scg-reconfigFailure*;

1> else if the UE initiates transmission of the *SCGFailureInformationNR* message due to consistent uplink LBT failures:

2> set the *failureType-v1610* as *scg-lbtFailure*;

1> else if connected as an IAB-node and the *SCGFailureInformationNR* is initiated due to the reception of a BH RLF indication on BAP entity from the SCG:

2> set *failureType-v1610* as *bh-RLF*.

NOTE: If the *failureType-v1610* is set, it is up to UE implementation how to set the value (except the value other) in failureType.