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

**Online, 16 – 27 August 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **36.331** | **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 36.331 on correcting Rel-15 failure type definition |
|  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***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 a clarification for the field failureType-r15 that the UE shall not set the value other-r16 in this release.**Impact Analysis**Impacted 5G architecutre options: (NG)EN-DC, NE-DC, NR-DCImpacted functionality:SCG failure informationInter-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. |
|  |  |
| ***Clauses affected:*** | 6.2.2 |
|  |  |
|  | **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:*** |  |

### 6.2.2 Message definitions

*<Partially omitted>*

#### – *SCGFailureInformationNR*

The *SCGFailureInformationNR* message is used to provide information regarding NR SCG failures detected by the UE.

Signalling radio bearer: SRB1

RLC-SAP: AM

Logical channel: DCCH

Direction: UE to E‑UTRAN

*SCGFailureInformationNR message*

-- ASN1START

SCGFailureInformationNR-r15 ::= SEQUENCE {

 criticalExtensions CHOICE {

 c1 CHOICE {

 scgFailureInformationNR-r15 SCGFailureInformationNR-r15-IEs,

 spare3 NULL, spare2 NULL, spare1 NULL

 },

 criticalExtensionsFuture SEQUENCE {}

 }

}

SCGFailureInformationNR-r15-IEs ::= SEQUENCE {

 failureReportSCG-NR-r15 FailureReportSCG-NR-r15 OPTIONAL,

 nonCriticalExtension SCGFailureInformationNR-v1590-IEs OPTIONAL

}

SCGFailureInformationNR-v1590-IEs ::= SEQUENCE {

 lateNonCriticalExtension OCTET STRING OPTIONAL,

 nonCriticalExtension SEQUENCE {} OPTIONAL

}

FailureReportSCG-NR-r15 ::= SEQUENCE {

 failureType-r15 ENUMERATED {

 t310-Expiry, randomAccessProblem,

 rlc-MaxNumRetx,

 synchReconfigFailureSCG, scg-reconfigFailure,

 srb3-IntegrityFailure, other-r16},

 measResultFreqListNR-r15 MeasResultFreqListFailNR-r15 OPTIONAL,

 measResultSCG-r15 OCTET STRING OPTIONAL,

 ...,

 [[ locationInfo-r16 LocationInfo-r10 OPTIONAL,

 logMeasResultListBT-r16 LogMeasResultListBT-r15 OPTIONAL,

 logMeasResultListWLAN-r16 LogMeasResultListWLAN-r15 OPTIONAL,

 failureType-v1610 ENUMERATED {t312-Expiry, scg-lbtFailure,

 beamFailureRecoveryFailure, bh-RLF-r16, spare4,

 spare3, spare2, spare1} OPTIONAL

 ]]

}

MeasResultFreqListFailNR-r15 ::= SEQUENCE (SIZE (1..maxFreqNR-r15)) OF MeasResultFreqFailNR-r15

MeasResultFreqFailNR-r15 ::= SEQUENCE {

 carrierFreq-r15 ARFCN-ValueNR-r15,

 measResultCellList-r15 MeasResultCellListNR-r15 OPTIONAL,

 ...

}

-- ASN1STOP

| *SCGFailureInformationNR* field descriptions |
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| ***failureType***Indicates the cause of the SCG failure. For failureType-r15, the UE shall not set the value other-r16 in this release. |
| ***measResultFreqListNR***The field contains available results of measurements on NR frequencies the UE is configured to measure by *measConfig*. |
| ***measResultSCG***Includes the NR *MeasResultSCG-Failure* IE as specified in TS 38.331 [82]. The field contains available results of measurements on NR frequencies the UE is configured to measure by the NR RRCConfiguration message. |