**3GPP TSG-RAN WG3 Meeting #110-e**  ***R3-20xxxx***

**E-meeting, 2 – 12 Nov 2020**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.473** | **CR** | **0684** | **rev** | **1** | **Current version:** | **16.3.1** |  |
|  |
| *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 |  | Radio Access Network | **x** | Core Network |  |

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|  |
| ***Title:***  | Corrections of UL and DL carrier list  |
|  |  |
| ***Source to WG:*** | Huawei, China Telcom, Samsung |
| ***Source to TSG:*** | R3 |
|  |  |
| ***Work item code:*** | NR\_SON\_MDT-Core |  | ***Date:*** | 2020-11-22 |
|  |  |  |  |  |
| ***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:*** | UL and DL carrier band list for FDD is included in the wrong place in ASN.1. The tabular seems correctSections 9.3.1.137 and 9.3.1.164 are duplicated |
|  |  |
| ***Summary of change:*** | In ASN.1: Add a comment that the UL and DL carrier list located in the wrong place are not used and add the UL and DL carrier list in the correct placeVoided section 9.3.1.164 and change any reference to here to 9.3.1.137Impact Analysis:Impact assessment towards the previous version of the specification (same release): This CR has isolated functional impact with the previous version of the specification (same release).The impact can be considered isolated because the change only affects the served cell information. |
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| ***Consequences if not approved:*** | Misaligned ASN.1 and Tabular |
|  |  |
| ***Clauses affected:*** | 9.3.1.10, 9.3.1.164, 9.4.5 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | Rev1: Added correction to remove duplicated 9.3.1.164  |

#### 9.3.1.10 Served Cell Information

This IE contains cell configuration information of a cell in the gNB-DU.

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| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| NR CGI | M |  | 9.3.1.12 |  | - |  |
| NR PCI | M |  | INTEGER (0..1007) | Physical Cell ID | - |  |
| 5GS TAC | O |  | 9.3.1.29 | 5GS Tracking Area Code | - |  |
| Configured EPS TAC | O |  | 9.3.1.29a |  | - |  |
| **Served PLMNs** |  | *1..<maxnoofBPLMNs>* |  | Broadcast PLMNs in SIB 1 associated to the NR Cell Identity in the *NR CGI* IE | - |  |
| >PLMN Identity | M |  | 9.3.1.14 |  | - |  |
| >TAI Slice Support List | O |  | Slice Support List9.3.1.37 | Supported S-NSSAIs per TA.  | YES | ignore |
| >NPN Support Information | O |  | 9.3.1.156 | Supported NPNs per PLMN. | YES | reject |
| >Extended TAI Slice Support List | O |  | Extended Slice Support List9.3.1.165 | Additional Supported S-NSSAIs per TA.  | YES | reject |
| CHOICE *NR-Mode-Info*  | M |  |  |  | - |  |
| *>FDD* |  |  |  |  | - |  |
| **>>FDD Info** |  | *1* |  |  | - |  |
| >>>UL FreqInfo | M |  | NR Frequency Info9.3.1.17 |  | - |  |
| >>>DL FreqInfo | M |  | NR Frequency Info9.3.1.17 |  | - |  |
| >>>UL Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| >>>DL Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| >>>UL Carrier List  | O |  | NR Carrier List9.3.1.137 | If included, the UL Transmission Bandwidth IE shall be ignored. | YES | ignore |
| >>>DL Carrier List | O |  | NR Carrier List9.3.1.137 | If included, the *DL Transmission Bandwidth* IE shall be ignored. | YES | ignore |
| *>TDD* |  |  |  |  | - |  |
| **>>TDD Info** |  | *1* |  |  | - |  |
| >>>NR FreqInfo | M |  | NR Frequency Info9.3.1.17 |  | - |  |
| >>>Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| >>>Intended TDD DL-UL Configuration | O |  | 9.3.1.89 |  |  YES | ignore |
| >>>TDD UL-DL Configuration Common NR | O |  | OCTET STRING | The *tdd-UL-DL-ConfigurationCommon* as defined in TS 38.331 [8] | YES | ignore |
| >>>Carrier List | O |  | NR Carrier List9.3.1.137 | If included, the Transmission Bandwidth IE shall be ignored. | YES | ignore |
| Measurement Timing Configuration | M |  | OCTET STRING | Contains the *MeasurementTimingConfiguration* inter-node message defined in TS 38.331 [8]. | - |  |
| RANAC | O |  | RAN Area Code9.3.1.57 |  | YES | ignore |
| **Extended Served PLMNs List** |  | *0..1* |  | This is included if more than 6 Served PLMNs is to be signalled. | YES | ignore |
| **>Extended Served PLMNs Item** |  | *1 ..<maxnoofExtendedBPLMNs>* |  |  | - |  |
| >>PLMN Identity | M |  | 9.3.1.14 |  | - |  |
| >>TAI Slice Support List | O |  | Slice Support List9.3.1.37 | Supported S-NSSAIs per TA.  | - |  |
| >>NPN Support Information | O |  | 9.3.1.156 | Supported NPNs per PLMN. | YES | reject |
| >>Extended TAI Slice Support List | O |  | Extended Slice Support List9.3.1.165 | Additional Supported S-NSSAIs per TA.  | YES | reject |
| Cell Direction | O |  | 9.3.1.78 |  | YES | ignore |
| Cell Type  | O |  | 9.3.1.87 |  | YES | ignore |
| **Broadcast PLMN Identity Info List** |  | *0..<maxnoofBPLMNsNR>* |  | This IE corresponds to the *PLMN-IdentityInfoList* IE in *SIB1* as specified in TS 38.331 [8]. All PLMN Identities and associated information contained in the *PLMN-IdentityInfoList* IE are included and provided in the same order as broadcast in SIB1. | YES | ignore |
| >PLMN Identity List | M |  | Available PLMN List9.3.1.65 | Broadcast PLMN IDs in SIB1 associated to the *NR Cell Identity* IE | - |  |
| >Extended PLMN Identity List | O |  | Extended Available PLMN List9.3.1.76 |  | - |  |
| >5GS-TAC | O |  | OCTET STRING (3) |  | - |  |
| >NR Cell Identity | M |  | BIT STRING (36) |  | - |  |
| >RANAC | O |  | RAN Area Code9.3.1.57 |  | - |  |
| >Configured TAC Indication | O |  | 9.3.1.87a | NOTE: This IE is associated with the 5GS TAC in the *Broadcast PLMN Identity Info List* IE | YES | ignore |
| >NPN Broadcast Information | O |  | 9.3.1.157 | If this IE is included the content of the *PLMN Identity List* IE and *Extended PLMN Identity List* IE if present in the *Broadcast PLMN Identity Info List* IE is ignored. | YES | reject |
| Configured TAC Indication | O |  | 9.3.1.87a | NOTE: This IE is associated with the 5GS TAC on top-level of the *Served Cell Information* IE | YES | ignore |
| Aggressor gNB Set ID | O |  | 9.3.1.93 | This IE indicates the associated aggressor gNB Set ID of the cell | YES | ignore |
| Victim gNB Set ID | O |  | 9.3.1.93 | This IE indicates the associated Victim gNB Set ID of the cell | YES | ignore |
| IAB Info IAB-DU | O |  | 9.3.1.106 |  | YES | ignore |
| SSB Positions In Burst  | O |  | 9.3.1.138 |  | YES | ignore |
| NR PRACH Configuration | O |  | 9.3.1.139 |  | YES | ignore |

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| **Range bound** | **Explanation** |
| maxnoofBPLMNs | Maximum no. of Broadcast PLMN Ids. Value is 6. |
| maxnoofExtendedBPLMNs | Maximum no. of Extended Broadcast PLMN Ids. Value is 6. |
| maxnoofBPLMNsNR | Maximum no. of PLMN Ids.broadcast in an NR cell. Value is 12. |

<unchanged text omitted>

#### 9.3.1.164 Void

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#### 9.3.1.75 Resource Coordination E-UTRA Cell Information

This IE contains E-UTRA cell information for UE-associated E-UTRA – NR resource coordination.

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| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| CHOICE *EUTRA-Mode-Info* | M |  |  |  | - |  |
| *>FDD* |  |  |  |  | - |  |
| **>>FDD Info** |  | *1* |  |  | - |  |
| >>>UL EARFCN | O |  | INTEGER (0 .. maxExtendedEARFCN, ...) | The relation between EARFCN and carrier frequency (in MHz) is defined in TS 36.104 [25]. | - |  |
| >>>DL EARFCN | M |  | INTEGER (0 .. maxExtendedEARFCN, ...) | The relation between EARFCN and carrier frequency (in MHz) is defined in TS 36.104 [25]. | - |  |
| >>>UL Transmission Bandwidth | O |  | E-UTRA Transmission Bandwidth9.3.1.80 | Present if *UL EARFCN* IE is present. | - |  |
| >>>DL Transmission Bandwidth | M |  | E-UTRA Transmission Bandwidth9.3.1.80 |  | - |  |
| *>TDD* |  |  |  |  | - |  |
| **>>TDD Info** |  | *1* |  |  | - |  |
| >>>EARFCN | M |  | INTEGER (0 .. maxExtendedEARFCN, ...) | The relation between EARFCN and carrier frequency (in MHz) is defined in TS 36.104 [25]. | - |  |
| >>>Transmission Bandwidth | M |  | E-UTRA Transmission Bandwidth9.3.1.80 |  | - |  |
| >>>Subframe Assignment | M |  | ENUMERATED(sa0, sa1, sa2, sa3, sa4, sa5, sa6,…) | Uplink-downlink subframe configuration information defined in TS 36.211 [27].In NB-IOT, sa0 and sa6 are not applicable. | - |  |
| **>>>Special Subframe Info** |  | *1* |  | Special subframe configuration information defined in TS 36.211 [27] | - |  |
| >>>>Special Subframe Patterns | M |  | ENUMERATED(ssp0, ssp1, ssp2, ssp3, ssp4, ssp5, ssp6, ssp7, ssp8, ssp9, ssp10, …) |  | - |  |
| >>>>Cyclic Prefix DL | M |  | ENUMERATED(Normal, Extended,…) |  | - |  |
| >>>>Cyclic Prefix UL | M |  | ENUMERATED(Normal, Extended,…) |  | - |  |
| E-UTRA PRACH Configuration | M |  | 9.3.1.74 |  | - |  |
| Ignore PRACH Configuration | O |  | ENUMERATED (true,...) |  | YES | reject |

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| Range bound | Explanation |
| maxExtendedEARFCN | Maximum value of extended EARFCN. Value is 262143. |

<unchanged text omitted>

### 9.4.5 Information Element Definitions

<unchanged text omitted>

Served-Cell-Information ::= SEQUENCE {

 nRCGI NRCGI,

 nRPCI NRPCI,

 fiveGS-TAC FiveGS-TAC OPTIONAL,

 configured-EPS-TAC Configured-EPS-TAC OPTIONAL,

 servedPLMNs ServedPLMNs-List,

 nR-Mode-Info NR-Mode-Info,

 measurementTimingConfiguration OCTET STRING,

 iE-Extensions ProtocolExtensionContainer { {Served-Cell-Information-ExtIEs} } OPTIONAL,

 ...

}

Served-Cell-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-RANAC CRITICALITY ignore EXTENSION RANAC PRESENCE optional }|

 { ID id-ExtendedServedPLMNs-List CRITICALITY ignore EXTENSION ExtendedServedPLMNs-List PRESENCE optional }|

 { ID id-Cell-Direction CRITICALITY ignore EXTENSION Cell-Direction PRESENCE optional }|

 { ID id-BPLMN-ID-Info-List CRITICALITY ignore EXTENSION BPLMN-ID-Info-List PRESENCE optional }|

 { ID id-Cell-Type CRITICALITY ignore EXTENSION CellType PRESENCE optional}|

 { ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

 { ID id-AggressorgNBSetID CRITICALITY ignore EXTENSION AggressorgNBSetID PRESENCE optional}|

 { ID id-VictimgNBSetID CRITICALITY ignore EXTENSION VictimgNBSetID PRESENCE optional}|

 { ID id-IAB-Info-IAB-DU CRITICALITY ignore EXTENSION IAB-Info-IAB-DU PRESENCE optional}|

 { ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

 { ID id-NRPRACHConfig CRITICALITY ignore EXTENSION NRPRACHConfig PRESENCE optional },

 ...

}

<unchanged text omitted>

NR-Mode-Info ::= CHOICE {

 fDD FDD-Info,

 tDD TDD-Info,

 choice-extension ProtocolIE-SingleContainer { { NR-Mode-Info-ExtIEs} }

}

NR-Mode-Info-ExtIEs F1AP-PROTOCOL-IES ::= {

 ...

}

<unchanged text omitted>

FDD-Info ::= SEQUENCE {

 uL-NRFreqInfo NRFreqInfo,

 dL-NRFreqInfo NRFreqInfo,

 uL-Transmission-Bandwidth Transmission-Bandwidth,

 dL-Transmission-Bandwidth Transmission-Bandwidth,

 iE-Extensions ProtocolExtensionContainer { {FDD-Info-ExtIEs} } OPTIONAL,

 ...

}

FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-ULCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

 { ID id-DLCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

 ...

}

<unchanged text omitted>

EUTRA-Coex-FDD-Info ::= SEQUENCE {

 uL-EARFCN ExtendedEARFCN OPTIONAL,

 dL-EARFCN ExtendedEARFCN,

 uL-Transmission-Bandwidth EUTRA-Transmission-Bandwidth OPTIONAL,

 dL-Transmission-Bandwidth EUTRA-Transmission-Bandwidth,

 iE-Extensions ProtocolExtensionContainer { {EUTRA-Coex-FDD-Info-ExtIEs} } OPTIONAL,

 ...

}

EUTRA-Coex-FDD-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-ULCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional }|

 -- the above IE is not used in this version of the specefication

 { ID id-DLCarrierList CRITICALITY ignore EXTENSION NRCarrierList PRESENCE optional },

 -- the above IE is not used in this version of the specefication

 ...

}