3GPP TSG-RAN WG3 Meeting #107bis-e R3-204258

**E-Meeting, 20th – 30th April 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **36.423** | **CR** | **1493** | **rev** | **1** | **Current version:** | **15.9.0** |  |
|  |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | Update on semantics description of 5GS TAC and Served PLMN |
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| ***Source to WG:*** | China Telecom, ZTE, CATT, Huawei, China Unicom, Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | RAN3 |
|  |  |
| ***Work item code:*** | NR\_newRAT-Core |  | ***Date:*** | 2020-05-15 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-15 |
|  | *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 TS37.340, in MR-DC, the SN is not required to broadcast system information other than for radio frame timing and SFN.Per TS36.423, the 5GS TAC and served PLMN comes from the broadcast SIB1. However, the en-gNB may not broadcast SIB1 via air interface. Therefore,the semantic description of 5GS TAC and served PLMN need to be updated to avoid any confusion. |
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| ***Summary of change:*** | Update the semantic description of 5GS TAC and served PLMN.Impact Analysis:Impact assessment towards the previous version of the specification (same release): This CR has isolated impact since the changes only clarify the usage of 5GS TAC and served PLMN IE.No ASN.1 impact. |
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| ***Consequences if not approved:*** | There still remain some ambiguities on 5GS TAC and served PLMN in NSA scenario. |
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| ***Clauses affected:*** | 9.2.98, 9.2.110 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
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| ***This CR's revision history:*** |  |

////////////////////////////////////////////////////////////////////////start of change///////////////////////////////////////////////////////////////////////////

### 9.2.98 NR Neighbour Information

This IE contains cell configuration information of NR cells that a neighbour node may need for the X2 AP interface.

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| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| **NR** **Neighbour Information** |  | *1 .. <maxnoofNRNeighbours>* |  |  | – |  |
| >NR Neighbour Information |  |  |  |  |  |  |
|  >>NRPCI | M |  | INTEGER (0..1007) | NR Physical Cell ID | – |  |
| >>NR CGI | M |  | 9.2.111 |  | – |  |
| >>5GS-TAC | O |  | OCTET STRING (3) | Broadcast 5GS Tracking Area Code.This IE may be included also when SIB1 is not broadcast (see TS37.340 [32]). | – |  |
| >>Configured TAC | O |  | OCTET STRING (2) | This is the TAC configured in the en-gNB, enables application of Roaming and Access Restrictions for EN-DC as specified in TS 37.340 [32]. | – |  |
| >>Measurement Timing Configuration | M |  | OCTET STRING | Contains the MeasurementTimingConfiguration inter-node message for the neighbour cell, as defined in TS 38.331 [31]. | – |  |
| >>CHOICE *NR-Neighbour-Mode-Info* | M |  |  |  | – |  |
| >>>*FDD* |  |  |  |  |  |  |
| >>>>**FDD Info** |  | *1* |  |  | – |  |
| >>>>>UL ARFCNFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |
| >>>>>DL ARFCNFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |
| >>>*TDD* |  |  |  |  |  |  |
| >>>>**TDD Info** |  | *1* |  |  | – |  |
| >>>>>ARFCNNRFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |

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| Range bound | Explanation |
| maxnoofNRNeighbours | Maximum no. of neighbour NR cells associated to a given served cell. Value is 1024. |

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### 9.2.110 Served NR Cell Information

This IE contains cell configuration information of an NR cell that a neighbour eNB may need for the X2 AP interface.

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| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| NR-PCI | M |  | INTEGER (0..1007) | NR Physical Cell ID | – |  |
| Cell ID | M |  | NR CGI 9.2.111 |  | – |  |
| 5GS-TAC | O |  | OCTET STRING (3) | Broadcast 5GS Tracking Area CodeThis IE may be included also when SIB1 is not broadcast (see TS37.340 [32]). | – |  |
| Configured TAC | O |  | OCTET STRING (2) | This is the TAC configured in the en-gNB, different from the 5GS TAC broadcast in the NR cell and enables application of Roaming and Access Restrictions for EN-DC as specified in TS 37.340 [32]. | – |  |
| **Served PLMNs** |  | *1..<maxnoofBPLMNs>* |  | Broadcast PLMNs. If more than maxnoofBPLMNs are needed for NR, they are provided by the *Additional PLMNs* IE. | – |  |
| >PLMN Identity | M |  | 9.2.4 |  | – |  |
| CHOICE *NR-Mode-Info* | M |  |  |  | – |  |
| *>FDD* |  |  |  |  |  |  |
| **>>FDD Info** |  | *1* |  |  | – |  |
| >>>UL FreqInfo | M |  | NR Frequency Info9.2.106 |  | – |  |
| >>>DL FreqInfo | M |  | NR Frequency Info9.2.106 |  | – |  |
| >>>UL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.114 |  | – |  |
| >>>DL Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.114 |  | – |  |
| *>TDD* |  |  |  |  |  |  |
| **>>TDD Info** |  | *1* |  |  | – |  |
| >>>NRFreqInfo | M |  | NR Frequency Info9.2.106 |  | – |  |
| >>>Transmission Bandwidth | M |  | NR Transmission Bandwidth9.2.114 |  | – |  |
| Measurement Timing Configuration | M |  | OCTET STRING | Contains the *MeasurementTimingConfiguration* inter-node message for the served cell, as defined in TS 38.331 [31]. | – |  |
| **Additional PLMNs** |  | *0..<maxnoofAdditionalPLMNs>* |  | Additional PLMNs in addition to the Served PLMNs | YES | reject |
| >PLMN Identity | M |  | 9.2.4 |  | – |  |
| **Broadcast PLMN Identity Info List NR** |  | *0..<maxnoofextBPLMNs-1>* |  | This IE corresponds to the *PLMN-IdentityInfoList* IE in *SIB1* as specified in TS 38.331 [31]. The PLMN Identities and associated information contained in this IE shall be provided in the same order as broadcast in SIB1.It may not broadcast when it acts as SN only in the case of EN-DC as defined in TS 37.340 [32]. | YES | ignore |
| **>Broadcast PLMNs** |  | *1..<maxnoofextBPLMNs>* |  |  | – |  |
| >>PLMN Identity | M |  | 9.2.4 |  | – |  |
| >5GS-TAC | O |  | OCTET STRING (3) |  | – |  |
| >NR Cell Identity | M |  | BIT STRING (SIZE(36)) |  | – |  |

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| Range bound | Explanation |
| maxnoofBPLMNs | Maximum no. of broadcast PLMN Ids. Value is 6. |
| maxnoofAdditionalPLMNs | Maximum no. additional PLMN Ids. Value is 6. |
| maxnoofextBPLMNs | Maximum no. of extended broadcast PLMN Ids. Value is 12. |
| maxnoofextBPLMNs-1 | Maximum no. of extended broadcast PLMN Ids minus 1. Value is 11. |

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