**3GPP TSG-RAN3 Meeting #109-e *R3-205608***

**E-meeting, 17 - 28 August 2020 was R3-205284**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **37.473** | **CR** | **0003** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  |
| *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)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Corrections to encoding PLMNs in served cell information |
|  |  |
| ***Source to WG:*** | Huawei, China Unicomm, Orange, Ericsson |
| ***Source to TSG:*** | RAN3 |
|  |  |
| ***Work item code:*** | LTE\_NR\_arch\_evo-Core |  | ***Date:*** | 2020-08-06 |
|  |  |  |  |  |
| ***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)* |
|  |  |
| ***Reason for change:*** | There is something wrong with Broadcast PLMN Identity Info List, e.g., semantics is not clear, the extended list should not be applied to W1. In addition, there are still some ambiguities on the semantics for Served PLMNs IE, PLMN-IdentityInfoList IE and PLMN Identity List IE. |
|  |  |
| ***Summary of change:*** | 1. Correct the semantics for Served PLMNs IE.
2. Correct the semantics for PLMN Identity List IE.
3. Change the PLMN-IdentityInfoList to PLMN-IdentityList.
4. Delete the Extended Served PLMNs List.

Impact Analysis:Impact assessment towards the previous version of the specification (same release): * This CR has **isolated impact** with the previous version of the specification (same release)
* This CR has an impact under **functional** point of view.
* The impact **can** be considered isolated because the change affects the served cell information.

This CR is non-backward compatible. |
|  |  |
| ***Consequences if not approved:*** | There still remain some errors on the handling of PLMN list in served cell information. |
|  |  |
| ***Clauses affected:*** | 9.3.1.10; 9.4.5; 9.4.7 |
|  |  |
|  | **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:*** | **rev 1:** serveral corrections in the semantics |

|  |
| --- |
| **1st Change** |

9.3.1.10 Served Cell Information

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| E-UTRAN CGI | M |  | 9.3.1.12 |  | - |  |
| E-UTRAN PCI | M |  | INTEGER (0..503) | Physical Cell ID | - |  |
| 5GS TAC | O |  | 9.3.1.26 | 5GS Tracking Area Code | - |  |
| **Served PLMNs** |  | *1..<maxnoofBPLMNs>* |  | Broadcast PLMNs in SIB1 associated to the E-UTRAN cell Identity in the *E-UTRAN CGI* IE. | - |  |
| >PLMN Identity | M |  | 9.3.1.14 |  | - |  |
| >TAI Slice Support List | O |  | Slice Support List9.3.1.31 | Supported S-NSSAIs per TA.  | YES | ignore |
| CHOICE E-UTRAN *-Mode-Info*  | M |  |  |  | - |  |
| ***>FDD*** |  |  |  |  | - |  |
| **>>FDD Info** |  | *1* |  |  | - |  |
| >>>UL FreqInfo | M |  | E-UTRAN Frequency Info9.3.1.17 |  | - |  |
| >>>DL FreqInfo | M |  | E-UTRAN Frequency Info9.3.1.17 |  | - |  |
| >>>UL Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| >>>DL Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| ***>TDD*** |  |  |  |  | - |  |
| **>>TDD Info** |  | *1* |  |  | - |  |
| >>> E-UTRAN FreqInfo | M |  | E-UTRAN Frequency Info9.3.1.17 |  | - |  |
| >>> Transmission Bandwidth | M |  | Transmission Bandwidth9.3.1.15 |  | - |  |
| Measurement Timing Configuration | M |  | OCTET STRING | Contains the *MeasurementTimingConfiguration* inter-node message defined in TS 36.331 [2]. | - |  |
| RANAC | O |  | RAN Area Code9.3.1.45 |  | YES | ignore |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Cell Type  | O |  | 9.3.1.62 |  | YES | ignore |
| **Broadcast PLMN Identity Info List** |  | *0..<maxnoofBPLMNs>* |  | This IE corresponds to the *cellAccessRelatedInfoList-5GC* IE in SIB1 as specified in TS 36.331 [2]. All PLMN Identities and associated information contained in the *cellAccessRelatedInfoList-5GC* IE are included and provided in the same order as broadcast in SIB1. | YES | ignore |
| >PLMN Identity List | M |  | Available PLMN List9.3.1.47 | Broadcast PLMN IDs in SIB1 associated to the *E-UTRAN Cell Identity* IE. | - |  |
|  |  |  |  |  |  |  |
| >5GS-TAC | O |  | OCTET STRING (3) |  | - |  |
| >E-UTRAN Cell Identity | M |  | BIT STRING (28) |  | - |  |
| >RANAC | O |  | RAN Area Code9.3.1.45 |  | - |  |

|  |  |
| --- | --- |
| **Range bound** | **Explanation** |
| maxnoofBPLMNs | Maximum no. of Broadcast PLMN Ids. Value is 6. |
|  |  |

|  |
| --- |
| **next Changes** |

### 9.4.5 Information Element Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Information Element Definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

W1AP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) w1ap (3) version1 (1) w1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 maxEARFCN,

 maxnoofErrors,

 maxnoofBPLMNs,

 maxnoofDLUPTNLInformation,

 maxnoofE-UTRANCellBands,

 maxnoofULUPTNLInformation,

 maxnoofQoSFlows,

 maxnoofSliceItems,

 maxnoofSIBTypes,

 maxCellineNB,

 maxBandsEutra,

<Unchanged Text Omitted>

BPLMN-ID-Info-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF BPLMN-ID-Info-Item

BPLMN-ID-Info-Item ::= SEQUENCE {

 pLMN-Identity-List AvailablePLMNList,

 fiveGS-TAC FiveGS-TAC OPTIONAL,

 eUTRA-Cell-ID EUTRA-Cell-ID,

 ranac RANAC OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { BPLMN-ID-Info-ItemExtIEs} } OPTIONAL,

 ...

}

BPLMN-ID-Info-ItemExtIEs W1AP-PROTOCOL-EXTENSION ::= {

 ...

}

<Unchanged Text Omitted>

<Unchanged Text Omitted>

Served-Cell-Information ::= SEQUENCE {

 eUTRANCGI EUTRANCGI,

 eUTRANPCI EUTRANPCI,

 fiveGS-TAC FiveGS-TAC OPTIONAL,

 servedPLMNs ServedPLMNs-List,

 eUTRAN-Mode-Info E-UTRAN-Mode-Info,

 measurementTimingConfiguration OCTET STRING,

 rANAC RANAC OPTIONAL,

 cell-Type Cell-Type OPTIONAL,

 bPLMN-ID-Info-List BPLMN-ID-Info-List OPTIONAL,

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

 ...

}

Served-Cell-Information-ExtIEs W1AP-PROTOCOL-EXTENSION ::= {

 ...

}

<Unchanged Text Omitted>

ServedPLMNs-List ::= SEQUENCE (SIZE(1..maxnoofBPLMNs)) OF ServedPLMNs-Item

ServedPLMNs-Item ::= SEQUENCE {

 pLMN-Identity PLMN-Identity,

 tAISliceSupportList SliceSupportList OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { ServedPLMNs-ItemExtIEs} } OPTIONAL,

 ...

}

ServedPLMNs-ItemExtIEs W1AP-PROTOCOL-EXTENSION ::= {

 ...

}

<Unchanged Text Omitted>

|  |
| --- |
| **next Changes** |

### 9.4.7 Constant Definitions

<Unchanged Text Omitted>

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Lists

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

maxEARFCN INTEGER ::= 262143

maxnoofErrors INTEGER ::= 256

maxnoofIndividualW1ConnectionsToReset INTEGER ::= 65536

maxCellinngeNBDU INTEGER ::= 512

maxnoofSCells INTEGER ::= 32

maxnoofSRBs INTEGER ::= 8

maxnoofDRBs INTEGER ::= 64

maxnoofULUPTNLInformation INTEGER ::= 2

maxnoofDLUPTNLInformation INTEGER ::= 2

maxnoofBPLMNs INTEGER ::= 6

maxnoofCandidateSpCells INTEGER ::= 64

maxnoofPotentialSpCells INTEGER ::= 64

maxnoofE-UTRANCellBands INTEGER ::= 8

maxnoofSIBTypes INTEGER ::= 32

maxnoofPagingCells INTEGER ::= 512

maxnoofTNLAssociations INTEGER ::= 32

maxnoofQoSFlows INTEGER ::= 64

maxnoofSliceItems INTEGER ::= 1024

maxCellineNB INTEGER ::= 256

maxnoofExtendedBPLMNs INTEGER ::= 6

maxnoofUEIDs INTEGER ::= 65536

maxBandsEutra INTEGER ::= 256

<Unchanged Text Omitted>

|  |
| --- |
| **Change Ends** |