**3GPP TSG-RAN WG3 Meeting #116-e *R3-223973***

**9 May – 19 May 2022**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.423** | **CR** | **0833** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <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:*** | Correction of Slice Group Configuration | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_slice-Core | | | | |  | ***Date:*** | | | 2022-4-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | At post email discussion, RAN2 achieve consensus on Slice list and priority information for cell reselection in [R2-2203933]. Based on the requirements, SA2#150 also agreed to support the feature. It is necessary to introduce Slice group configuration in specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Introduction of the NSAGs (Network Slice AS Group) using the *TAI Support List* IE of the XnAP Setup and RAN Configuration Update messages.  Impact assessment towards the previous version of the specification (same release):  This CR has an isolated impact towards the previous version of the specification (same release).  This CR only has an impact on the Slice Group function. | | | | | | | | |
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| ***Consequences if not approved:*** | | Slice Group feature not supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 9.2.3.20, 9.2.3.x, 9.3.5, 9.3.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 38.413 CR0784  TS 38.473 CR0927 | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | V1: Revised from R3-223584 to in line with NGAP/F1AP | | | | | | | | |

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| Start of Change |

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5QI 5G QoS Identifier

AMF Access and Mobility Management Function

CAG Closed Access Group

CGI Cell Global Identifier

CHO Conditional Handover

CP Control Plane

CPA Conditional PSCell Addition

CPAC Conditional PSCell Addition or Change

CPC Conditional PSCell Change

DAPS Dual Active Protocol Stack

DL Downlink

EN-DC E-UTRA-NR Dual Connectivity

E-RAB E-UTRAN Radio Access Bearer

GUAMI Globally Unique AMF Identifier

IAB Integrated Access and Backhaul

IMEISV International Mobile station Equipment Identity and Software Version number

MBS Multicast/Broadcast Service

MCG Master Cell Group

M-NG-RAN node Master NG-RAN node

NGAP NG Application Protocol

NID Network Identifier

NPN Non-Public Network

NSAG Network Slice AS Group

NSSAI Network Slice Selection Assistance Information

PEIPS Paging Early Indication with Paging Subgrouping

PNI-NPN Public Network Integrated Non-Public Network

ProSe Proximity Services

RANAC RAN Area Code

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| Next Change |

#### 9.2.3.20 TAI Support List

This IE indicates the list of TAIs supported by NG-RAN node and associated characteristics e.g. supported slices.

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| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| **TAI Support Item** |  | *1..<maxnoofsupportedTACs>* |  |  | – |  |
| >TAC | M |  | 9.2.2.5 | Broadcast TAC | – |  |
| **>Broadcast PLMNs** |  | *1..<maxnoofsupportedPLMNs>* |  |  | – |  |
| >>PLMN Identity | M |  | 9.2.2.4 | Broadcast PLMN | – |  |
| >>TAI Slice Support List | M |  | Slice Support List 9.2.3.22 | Supported S-NSSAIs per TAC, per PLMN or per SNPN. | – |  |
| >>NPN Support | O |  | 9.2.2.72 |  | YES | reject |
| >>Extended TAI Slice Support List | O |  | Extended Slice Support List 9.2.3.139 | Additional Supported S-NSSAIs per TAC, per PLMN or per SNPN. | YES | reject |
| >>TAI NSAG Support List | O |  | 9.2.3.x | NSAG information associated with the slices per TAC, per PLMN or per SNPN. | YES | ignore |

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| Next Change |

9.2.3.x TAI NSAG Support List

This IE indicates the list of NSAGs configured at the NG-RAN node and their associated S-NSSAIs as defined in TS 23.501[7].

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** |
| **NSAG Support Item** |  | *1..<maxnoofNSAGs>* |  |  |
| >NSAG ID | M |  | INTEGER (0.. 255, …) |  |
| >NSAG Slice Support List | M |  | Extended Slice Support List 9.2.3.139 | Indicates the list of slices which belong to the NSAG. |

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| **Range bound** | **Explanation** |
| maxnoofNSAGs | Maximum no. of Slice Groups for the TAI. Value is 256. |

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| Next Change |

9.3.5 Information Element definitions

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-- Information Element Definitions

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

XnAP-IEs {

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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| --- |
| Next Change |

id-UESliceMaximumBitRateList,

id-PositioningInformation,

id-ServedCellSpecificInfoReq-NR,

id-TAINSAGSupportList,

maxEARFCN,

|  |
| --- |
| Next Change |

maxnoofNeighbour-NG-RAN-Nodes,

maxnoofSRBs,

maxnoofSMBR,

maxnoofNSAGs

FROM XnAP-Constants

BroadcastPLMNinTAISupport-Item ::= SEQUENCE {

plmn-id PLMN-Identity,

tAISliceSupport-List SliceSupport-List,

iE-Extension ProtocolExtensionContainer { {BroadcastPLMNinTAISupport-Item-ExtIEs} } OPTIONAL,

...

}

BroadcastPLMNinTAISupport-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

{ ID id-NPN-Support CRITICALITY reject EXTENSION NPN-Support PRESENCE optional}|

{ ID id-ExtendedTAISliceSupportList CRITICALITY reject EXTENSION ExtendedSliceSupportList PRESENCE optional}|

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

...

}

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| Next Change |

TAINSAGSupportList ::= SEQUENCE (SIZE(1..maxnoofNSAGs)) OF NSAGSupportItem

NSAGSupportItem ::= SEQUENCE {

nSAG-ID NSAG-ID,

nSAGSliceSupport ExtendedSliceSupportList,

iE-Extensions ProtocolExtensionContainer { {NSAGSupportItem -ExtIEs} } OPTIONAL,

...

}

NSAGSupportItem -ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

NSAG-ID ::= INTEGER (0..255, ...)

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| Next Change |

9.3.7 Constant definitions

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-- Constant definitions

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

XnAP-Constants {

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

ngran-Access (22) modules (3) xnap (2) version1 (1) xnap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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| --- |
| Next Change |

maxnoofCSIRSneighbourCellsInMTC INTEGER ::= 16

maxnoofNeighbour-NG-RAN-Nodes INTEGER ::= 256

maxnoofSRBs INTEGER ::= 5

maxnoofSMBR INTEGER ::= 8

maxnoofNSAGs INTEGER ::= 256

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

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| Next Change |

id-S-NG-RANnodeUE-Slice-MBR ProtocolIE-ID ::= 359

id-PositioningInformation ProtocolIE-ID ::= 360

id-UEAssistantIdentifier ProtocolIE-ID ::= 361

id-TAINSAGSupportList ProtocolIE-ID ::= xxx

END

-- ASN1STOP

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| End of Change |