**3GPP TSG-RAN WG2 Meeting #113e *R2-2102022***

**Online, Jan 25th - Feb 5th, 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **2420** | **rev** | **1** | **Current version:** | **16.3.0** |  |
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| *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 |  | Core Network |  |

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| ***Title:***  | CR on the Parameters Selection |
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| ***Source to WG:*** | ZTE, Sanechips, Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | RAN2 |
|  |  |
| ***Work item code:*** | NG\_RAN\_PRN-Core  |  | ***Date:*** | 2021-02-28 |
|  |  |  |  |  |
| ***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)* |
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| ***Reason for change:*** | To include the agreement that “for the case when the UE is allowed to access both the legacy PLMN and the NPN (PLMN+CAG), the UE shall be able to pick either the PLMN or the NPN, at least in case of different UAC configuration on the PLMN and NPN” |
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| ***Summary of change:*** | 1. Clarify that when the UE is allowed to access both the legacy PLMN and the NPN (PLMN+CAG), and the UAC configuration on the PLMN and NPN are different, the UE shall select the UAC parameters that has a higher probability of allowing the access to the cell.
2. Some other editorial corrections

**Impact Analysis**Impacted 5G architecture options:NR SA, NE-DC,NR-DC Impacted functionality: NPNInter-operability:Implementation of this CR by UE will not cause compatibility issues. |
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| ***Consequences if not approved:*** | When the UE is allowed to access both the legacy PLMN and the NPN (PLMN+CAG) in a shared cell, the UE may not use the UAC parameters that has a higher probability of allowing the access to the cell |
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| ***Clauses affected:*** | 5.3.3.4, 5.3.13.4, 5.3.14,6.2.2,6.3.2 |
|  |  |
|  | **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:*** |  |

First change

#### 5.3.3.4 Reception of the *RRCSetup* by the UE

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1> set the content of *RRCSetupComplete* message as follows:

2> if upper layers provide a 5G-S-TMSI:

3> if the *RRCSetup* is received in response to an *RRCSetupRequest*:

4> set the *ng-5G-S-TMSI-Value* to *ng-5G-S-TMSI-Part2*;

3> else:

4> set the *ng-5G-S-TMSI-Value* to *ng-5G-S-TMSI*;

2> if the procedure in 5.2.2.4.2 resulted in use of information in *npn-IdentityInfoList*:

3> set the *selectedPLMN-Identity* from the *npn-IdentityInfoList*;

2> else:

3> set the *selectedPLMN-Identity* to the PLMN selected by upper layers from the *plmn-IdentityList*;

2> if upper layers provide the 'Registered AMF':

3> include and set the *registeredAMF* as follows:

4> if the PLMN identity of the 'Registered AMF' is different from the PLMN selected by the upper layers:

5> include the *plmnIdentity* in the *registeredAMF* and set it to the value of the PLMN identity in the 'Registered AMF' received from upper layers;

4> set the *amf-Identifier* to the value received from upper layers;

3> include and set the *guami-Type* to the value provided by the upper layers;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Next change

#### 5.3.13.4 Reception of the *RRCResume* by the UE

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1> set the content of the of *RRCResumeComplete* message as follows:

2> if the upper layer provides NAS PDU, set the *dedicatedNAS-Message* to include the information received from upper layers;

2> if upper layers provides a PLMN:

3> if the procedure in 5.2.2.4.2 resulted in use of information in *npn-IdentityInfoList*:

4> set the selectedPLMN-Identity from the npn-IdentityInfoList;

3> else:

4> set the *selectedPLMN-Identity* to the PLMN selected by upper layers from the *plmn-IdentityList*;

2> if the *masterCellGroup* contains the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each MCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each MCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Next change

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#### 5.3.14.2 Initiation

Upon initiation of the procedure, the UE shall:

1> if timer T390 is running for the Access Category:

2> consider the access attempt as barred;

1> else if timer T302 is running and the Access Category is neither '2' nor '0':

2> consider the access attempt as barred;

1> else:

2> if the Access Category is '0':

3> consider the access attempt as allowed;

2> else:

3> if *SIB1* includes *uac-BarringPerPLMN-List* that contains a *UAC-BarringPerPLMN* for the selected PLMN or SNPN:

4> set the PLMN, SNPN and CAG *UAC-BarringPerPLMN* entry to the *UAC-BarringPerPLMN* entry corresponding to the *plmn-IdentityIndex* of the selected PLMN or SNPN, or accessed CAG cell;

4> if the *cellAccessRelatedInfo* contains an entry of selected PLMN and the UE is either allowed or instructed to access the PLMN via a cell for which at least one CAG ID is broadcast:

5> if NAS has not set the CAG-only indication in the UE for selected PLMN:

6> if both the CAG and PLMN *UAC-BarringPerPLMN* entries are present:

7> if the PLMN *UAC-BarringPerPLMN* entry has a higher probability of allowing the access attempt in the Access barring check procedure (5.3.14.5) than the CAG *UAC-BarringPerPLMN* entry:

8> select the PLMN *UAC-BarringPerPLMN* entry that is present;

7>else:

8> select the CAG *UAC-BarringPerPLMN* entry that is present;

6> else if either the CAG or PLMN UAC *UAC-BarringPerPLMN* entry are present:

7> if SIB1 includes *uac-BarringForCommon* and the CAG or PLMN *UAC-BarringPerPLMN* entry has a higher probability of allowing the access attempt in the Access barring check procedure (5.3.14.5) than for the *uac-BarringForCommon*:

8> select the CAG or PLMN *UAC-BarringPerPLMN* entry that is present;

5> else:

6> select the CAG *UAC-BarringPerPLMN* entry, if any;

NOTE X: A UAC barring parameter has a higher probability of allowing the access attempt if either the bit corresponding to one of the UE’s access identities is set to zero in the *uac-BarringForAccessIdentity* bitmap or if the *uac-BarringFactor* is high.

4> else:

5> select the SNPN or *UAC-BarringPerPLMN* entry, if any;

3> if any *UAC-BarringPerPLMN* entry is selected:

4> in the remainder of this procedure, use the selected *UAC-BarringPerPLMN* entry (i.e. presence or absence of access barring parameters in this entry) irrespective of the *uac-BarringForCommon* included in *SIB1*;

3> else if SIB1 includes *uac-BarringForCommon*:

4> in the remainder of this procedure use the *uac-BarringForCommon* (i.e. presence or absence of these parameters) included in *SIB1*;

3> else:

4> consider the access attempt as allowed;

3> if *uac-BarringForCommon* is applicable or the *uac-ACBarringListType* indicates that *uac-ExplicitACBarringList* is used:

4> if the corresponding *UAC-BarringPerCatList* contains a *UAC-BarringPerCat* entry corresponding to the Access Category:

5> select the *UAC-BarringPerCat* entry;

5> if the *uac-BarringInfoSetList* contains a *UAC-BarringInfoSet* entry corresponding to the selected *uac-barringInfoSetIndex* in the *UAC-BarringPerCat*:

6> select the *UAC-BarringInfoSet* entry;

6> perform access barring check for the Access Category as specified in 5.3.14.5, using the selected *UAC-BarringInfoSet* as "UAC barring parameter";

5> else:

6> consider the access attempt as allowed;

4> else:

5> consider the access attempt as allowed;

3> else if the *uac-ACBarringListType* indicates that *uac-ImplicitACBarringList* is used:

4> select the *uac-BarringInfoSetIndex* corresponding to the Access Category in the *uac-ImplicitACBarringList*;

4> if the *uac-BarringInfoSetList* contains the *UAC-BarringInfoSet* entry corresponding to the selected *uac-BarringInfoSetIndex*:

5> select the *UAC-BarringInfoSet* entry;

5> perform access barring check for the Access Category as specified in 5.3.14.5, using the selected *UAC-BarringInfoSet* as "UAC barring parameter";

4> else:

5> consider the access attempt as allowed;

3> else:

4> consider the access attempt as allowed;

1> if the access barring check was requested by upper layers:

2> if the access attempt is considered as barred:

3> if timer T302 is running:

4> if timer T390 is running for Access Category '2':

5> inform the upper layer that access barring is applicable for all access categories except categories '0', upon which the procedure ends;

4> else

5> inform the upper layer that access barring is applicable for all access categories except categories '0' and '2', upon which the procedure ends;

3> else:

4> inform upper layers that the access attempt for the Access Category is barred, upon which the procedure ends;

2> else:

3> inform upper layers that the access attempt for the Access Category is allowed, upon which the procedure ends;

1> else:

2> the procedure ends.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Next change

##### 6.2.2 Message definitions

##### – *SIB1*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* omitted unchanged parts\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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| ***uac-BarringForCommon***Common access control parameters for each access category. Common values are used for all PLMNs/SNPNs, unless overwritten by the PLMN/SNPN specific configuration provided in *uac-BarringPerPLMN-List*. The parameters are specified by providing an index to the set of configurations (*uac-BarringInfoSetList*). UE behaviour upon absence of this field is specified in clause 5.3.14.2. |

Next change

##### 6.3.2 Radio resource control information elements

##### – *UAC-BarringPerPLMN-List*

The IE *UAC-BarringPerPLMN-List* provides access category specific access control parameters, which are configured per PLMN or SNPN.

*UAC-BarringPerPLMN-List* information element

-- ASN1START

-- TAG-UAC-BARRINGPERPLMN-LIST-START

UAC-BarringPerPLMN-List ::= SEQUENCE (SIZE (1.. maxPLMN)) OF UAC-BarringPerPLMN

UAC-BarringPerPLMN ::= SEQUENCE {

 plmn-IdentityIndex INTEGER (1..maxPLMN),

 uac-ACBarringListType CHOICE{

 uac-ImplicitACBarringList SEQUENCE (SIZE(maxAccessCat-1)) OF UAC-BarringInfoSetIndex,

 uac-ExplicitACBarringList UAC-BarringPerCatList

 } OPTIONAL -- Need S

}

-- TAG-UAC-BARRINGPERPLMN-LIST-STOP

-- ASN1STOP

End of change