**3GPP TSG-CT WG6 Meeting #120-bisC6-240XYZ**

**Orlando, US; 19th – 22nd Nov 2024**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  |
| *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 | **X** | ME | **X** | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  |  |
|  |  |
| ***Source to WG:*** | QUALCOMM |
| ***Source to TSG:*** | CT6 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Default value of service n°127- “Control plane-based steering of UE in VPLMN” is defined as “x” in section “4.9 Definition of 5G-NR UICC” which means this can be interpreted as 0 or 1. If service n°127 is "available" in the USIM Service Table, the Registration Accept shall contain control plane based Steering of Roaming information during the initial registration procedure in a VPLMN which is not implemented by default in NG-SS Registration Accept for non-SoR TCs.This service is required only for 31.124 USAT SoR cases.This impacts non SoR VPLMN TCs like 7.4.6, 7.4.7 for which service n°127 should be disabled.Proposal is to define default value of service n°127 as 0 in the USIM Service Table. |
|  |  |
| ***Summary of change:*** | Correct service n°127 as 0 in section 4.9, 7.4.6, 7.4.7 Test case instead of x. |
|  |  |
| ***Consequences if not approved:*** | Non SoR VPLMN TCs will be impacted. |
|  |  |
| ***Clauses affected:*** | 4.9.1,7.4.6,7.4.7 |
|  |  |
|  | **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:*** | Was C6-240656 |

\* \* \* First Change \* \* \* \*

## 4.9 Definition of 5G-NR UICC

### 4.9.0 Introduction

The 5G-NR test cases require a different configuration than the one described in clause 4.1. For that purpose, a default 5G-NR UICC is defined. In general, the values of the 5G-NR UICC are identical to the default UICC, with the following exceptions:

4.9.1 EFUST (USIM Service Table)

Logically:

Settings from clause 4.1 (Default UICC) of the present document apply with the following changes:

|  |  |  |  |
| --- | --- | --- | --- |
| Service n°85: |  | EPS Mobility Management Information | Available |
| Service n°86: |  | Allowed CSG Lists and corresponding indications | Available |
| Service n°122: |  | 5GS Mobility Management Information | Available |
| Service n°123: |  | 5G Security Parameters | Available |
| Service n°124: |  | Subscription identifier privacy support | available |
| Service n°125: |  | SUCI calculation by the USIM | not available |
| Service n°127: |  | Control plane-based steering of UE in VPLMN | not available |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** |
| Binary: | xxxx xx1x | xxxx xxxx | xxxx 1x00 | xxxx x1xx | xxxx xx11 | xxxx xxxx | xxxx xxxx | xxxx xxxx |
|  | **B9** | **B10** | **B11** | **…** | **B16** |  |  |  |
|  | xxxx xxxx | xxxx xxxx | xx11 xxxx | ... | X0x0 111x |  |  |  |

\* \* \* Next Change \* \* \* \*

### 7.4.6 UE recognising Multiplier Coefficient for Higher Priority PLMN search - satellite-NG-RAN

#### 7.4.6.1 Definition and applicability

The Multiplier Coefficient for Higher Priority PLMN search is the multiplier coefficient take with the time interval configured in EFHPPLMN to adjust the time interval for higher priority PLMN search. Higher priority PLMN list gives in priority order the Higher priority PLMN on which the UE shall register first.

#### 7.4.6.2 Conformance requirement

After registered onto a VPLMN the UE shall take into account the Higher priority PLMN search period timer multiplied by the Multiplier Coefficient for Higher Priority PLMN search and the priority order of the Higher priority PLMNs in the preferred lists on the USIM.

- TS 22.011 [6], clauses 3.2.2 and 3.2.2.5.

- TS 24.501 [42], clause 5.5.1.2.4.

- TS 23.122 [31], clause 4.4.3.3.1.

- TS 31.102 [4], clause 4.2.6, 4.2.8, and 4.4.11.20.

#### 7.4.6.3 Test purpose

To verify that the Higher priority PLMN timer is read.

To verify that the Multiplier Coefficient for Higher Priority PLMN search is read,

Upon time interval between two searches adjusted with the mulpiplier coefficient, to verify that the Higher priority PLMN takes precedence over the VPLMN in which the UE is currently registered in.

Hereby the new coding for NG-RAN satellite access has to be handled correctly by the UE.

#### 7.4.6.4 Method of test

##### 7.4.6.4.1 Initial conditions

For this test a SAT-NG-SS is required.

The SAT-NG-SS transmits on BCCH with the following network parameters:

-- TAI (MCC/MNC/TAC): 244/008/000001.

- Access control: unrestricted.

After the registration of UE the SAT-NG-SS transmits on a second BCCH with the following network parameters:

- TAI (MCC/MNC/TAC): 244/083/000001.

-- Access control: unrestricted.

The default 5G-NR UICC supporting Rel-17 features is used with the following exception:

**EFHPLMNwACT (HPLMN selector with Access Technology)**

Logically: Set to MCC 244 and MNC 083

 Set to satellite NG-RAN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 |
| Hex | 42 | 34 | 80 | 04 | 00 |

**EFHPPLMN (Higher Priority HPLMN Search period)**

Logically: set to 6 minutes

|  |  |
| --- | --- |
| Coding: | B1 |
| Hex | 01 |

**EFMCHPPLMN (Multiplier Coefficient for Higher Priority PLMN search)**

Logically: set to 2

|  |  |
| --- | --- |
| Coding: | B1 |
| Hex | 02 |

**EFUST (USIM Service Table)**

Logically:

|  |  |  |  |
| --- | --- | --- | --- |
| Service n°43: |  | HPLMN selector with access technology | available |
| Service n°127: |  | Control plane-based steering of UE in VPLMN | not available |
| Service n°144: |  | Multiplier Coefficient for Higher Priority PLMN search via NG-RAN satellite access | available |

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| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** |
| Binary: | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx x1xx | xxxx xxxx | xxxx xxxx |
|  | **B9** | **B10** | **B11** | **…** | **B16** | **B17** | **B18** | **B19** |
|  | xxxx xxxx | xxxx xxxx | xxxx xxxx | ... | X0xx xxxx | xxxx xxxx | 1xxx xxxx | xxxx xxxx |

\* \* \* Next Change \* \* \* \*

### 7.4.7 UE recognising the search period of the Higher priority PLMN – NG-RAN

#### 7.4.7.1 Definition and applicability

The Higher priority PLMN list gives in priority order the Higher priority PLMN on which the UE shall register first. The Higher priority PLMN search period gives the time interval in which the UE shall search for a possible Higher priority PLMN registration.

#### 7.4.7.2 Conformance requirement

After registered onto a VPLMN the UE shall take into account the Higher priority PLMN search period timer and the priority order of the Higher priority PLMNs in the preferred lists on the USIM.

- TS 22.011 [6], clauses 3.2.2 and 3.2.2.5.

- TS 24.501 [42], clause 5.5.1.2.4.

- TS 31.102 [4], clause 4.2.6.

#### 7.4.7.3 Test purpose

To verify that the Higher priority PLMN timer is read and the Higher priority PLMN takes precedence over the VPLMN in which the UE is currently registered in. Hereby the new coding for NG-RAN has to be handled correctly by the UE.

#### 7.4.7.4 Method of test

##### 7.4.7.4.1 Initial conditions

For this test a NG-SS is required.

The NG-SS transmits on BCCH with the following network parameters:

-- TAI (MCC/MNC/TAC): 244/008/000001.

- Access control: unrestricted.

After the registration of UE the NG-SS transmits on a second BCCH with the following network parameters:

- TAI (MCC/MNC/TAC): 244/083/000001.

-- Access control: unrestricted.

The default 5G-NR UICC is used with the following exception:

**EFHPLMNwACT (HPLMN selector with Access Technology)**

Logically: Set to MCC 244 and MNC 083

 Set to NG-RAN

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Coding: | B1 | B2 | B3 | B4 | B5 |
| Hex | 42 | 34 | 80 | 08 | 00 |

**EFHPPLMN (Higher Priority HPLMN Search period)**

Logically: set to 6 minutes

|  |  |
| --- | --- |
| Coding: | B1 |
| Hex | 01 |

**EFUST (USIM Service Table)**

Logically:

|  |  |  |  |
| --- | --- | --- | --- |
| Service n°43: |  | HPLMN selector with access technology | available |
| Service n°127: |  | Control plane-based steering of UE in VPLMN | not available |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coding:** | **B1** | **B2** | **B3** | **B4** | **B5** | **B6** | **B7** | **B8** |
| Binary: | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx xxxx | xxxx x1xx | xxxx xxxx | xxxx xxxx |
|  | **B9** | **B10** | **B11** | **…** | **B16** |  |  |  |
|  | xxxx xxxx | xxxx xxxx | xxxx xxxx | ... | X0xx xxxx |  |  |  |

The UICC shall be installed into the Terminal and the UE shall be set to automatic PLMN selection mode.

\* \* \* End of Changes \* \* \* \*