**3GPP TSG-CT WG1 Meeting #142C1-23XXXX**

**Bratislava 22– 26 May 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **23.122** | **CR** | **1083** | **rev** | **3** | **Current version:** | **18.2.0** |  |
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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:*** | SNPN manual selection and credentials holder controlled prioritized list of preferred SNPNs and GINs for access for localized services in SNPN | | | | | | | | | |
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| ***Source to WG:*** | MediaTek Inc., Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNPN\_Ph2 | | | | |  | ***Date:*** | | | 2023-05-19 |
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| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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)* | |
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| ***Reason for change:*** | | As discussed in [C1-233110](https://www.3gpp.org/ftp/tsg_ct/WG1_mm-cc-sm_ex-CN1/TSGC1_142_Bratislava/Docs/C1-233110.zip) discussion paper, manual selection for SNPNs providing access for localized services are required by SA1 TS 22.261 and SA2 TS 23.501.  To further extend manual selection taking localized services into account, three aspects need to be considered when user trigger manually select SNPN:  (1) similar to the **indication** whether an available SNPN is in **forbidden list**, the user interface can **indicate** whether the validity **criteria are met** for an available SNPN which providing localized services,  (2) the SNPNs/GINs in the **2 new lists** ("credentials holder controlled prioritized list of **preferred SNPNs** for access for **localized services** in SNPN", "credentials holder controlled prioritized list of **preferred GINs** for access for **localized services** in SNPN") needs to be considered in the presentation of available SNPNs to the user, and  (3) when there are several subscriptions including same SNPN in the **2 new lists**, for example:  (3.1) SNPN #100 is in **subscription #1**’s "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" and the validity criteria of SNPN #100 in **subscription #1** is **yesterday**;  (3.2) SNPN #100 is in **subscription #2**’s "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" and the validity criteria of SNPN #100 in **subscription #2** is **today**;  , if the UE configuration is as above and if user selects SNPN#100, then **subscription #2** should be selected by the MS to access the SNPN#100 | | | | | | | | |
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| ***Summary of change:*** | | (1) enable the MS to indicate whether the validity **criteria are met** for an available SNPN which providing localized services  (2) enable the MS to consider SNPNs/GINs in the **2 new lists** when indicating candidate available SNPNs to the user.  (3) enable the MS to consider the validity information when selecting an appropriate subscription to access the user selected SNPN. | | | | | | | | |
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| ***Consequences if not approved:*** | | The **2 new lists** ("credentials holder controlled prioritized list of **preferred SNPNs** for access for **localized services** in SNPN", "credentials holder controlled prioritized list of **preferred GINs** for access for **localized services** in SNPN") are not considered in SNPN manual selection. | | | | | | | | |
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| ***Clauses affected:*** | | 4.9.3.1.2 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | | Rev 2:   * Cover page is updated to include the DISC C1-233110 and refer to the discussion paper; * An unnecessary “if” is removed from bullet a) 1) ; * An unnecessary “if” is removed from bullet a) 2) ; and * Bullet b) 4) is extremely simplified.   Rev 3: Specify what is changed from Rev1 to Rev 2 in “***This CR's revision history***” | | | | | | | | |

\*\*\*change\*\*\*

##### 4.9.3.1.2 Manual SNPN selection mode procedure

The MS indicates to the user any available SNPNs which meet the criteria specified in bullets a) and b). If the MS does not support access to an SNPN using credentials from a credentials holder, this includes SNPNs in the list of "permanently forbidden SNPNs", and the list of "temporarily forbidden SNPNs". The MS may indicate to the user whether the available SNPNs are present in the list of "temporarily forbidden SNPNs" or the list of "permanently forbidden SNPNs". If the MS supports access to an SNPN using credentials from a credentials holder, this includes SNPNs in the lists of "permanently forbidden SNPNs", and the lists of "temporarily forbidden SNPNs" associated with each entry of the "list of subscriber data" or the PLMN subscription. If the MS supports equivalent SNPNs, this includes SNPNs in the lists of "permanently forbidden SNPNs", and the lists of "temporarily forbidden SNPNs" associated with each entry of the "list of subscriber data". The MS may indicate to the user whether the available SNPNs are present in a list of "temporarily forbidden SNPNs" or a list of "permanently forbidden SNPNs" for an entry of the "list of subscriber data" or the PLMN subscription. If the MS supports access to an SNPN providing access for localized services in SNPN, the MS may indicate to the user whether an available SNPN is identified by an SNPN identity contained in an entry of one of the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" and whether the validity information of the entry is met, and whether an available SNPN is broadcasting a GIN contained in an entry of one of the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" and whether the validity information of the entry is met.

a) SNPNs with the following order:

1) identified by an SNPN identity contained in one of the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" configured in the ME if the validity information of the entry is met, the MS supports access to an SNPN providing access for localized services in SNPN and the access for localized services in SNPN is enabled. Prioritization between the different lists is MS implementation specific;

2) broadcast a GIN contained in one of the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" configured in the ME if the validity information of the entry is met, the MS supports access to an SNPN providing access for localized services in SNPN and the access for localized services in SNPN is enabled. Prioritization between the different lists is MS implementation specific. If more than one SNPN broadcast the same GIN, the order in which those SNPNs are indicated is MS implementation specific; and

3) identified by an SNPN identity in an entry of the "list of subscriber data" in the ME, if any. The order in which those SNPNs are indicated is MS implementation specific;

b) if the MS supports access to an SNPN using credentials from a credentials holder, for the SNPNs which broadcast the indication that access using credentials from a credentials holder is supported:

1) each SNPN which is identified by an SNPN identity contained in one of the user controlled prioritized lists of preferred SNPNs configured in the ME. SNPNs included in the same list are indicated in the order in which they are included in the list. Prioritization between the different lists is MS implementation specific;

2) each SNPN which is identified by an SNPN identity contained in one of the credentials holder controlled prioritized lists of preferred SNPNs configured in the ME. SNPNs included in the same list are indicated in the order in which they are included in the list. Prioritization between the different lists is MS implementation specific;

3) each SNPN which broadcasts a GIN contained in one of the credentials holder controlled prioritized lists of GINs configured in the ME. SNPNs broadcasting a GIN included in the same list are indicated in the order in which the GIN is included in the list. Prioritization between the different lists is MS implementation specific. If more than one SNPN broadcast the same GIN, the order in which those SNPNs are indicated is MS implementation specific; and

4) each SNPN identified by an SNPN identity which which is not indicated in any of bullets a), b) 1), b) 2) or b) 3). The order in which those SNPNs are indicated is MS implementation specific.

For each of the SNPNs indicated to the user, the MS shall forward a human-readable network name along with the SNPN identity to the upper layers if the system information broadcasted for the SNPN includes the human-readable network name for the SNPN.

The MS shall limit its search for the SNPN to the NG-RAN access technology.

The user may select an SNPN and the MS then initiates registration on this SNPN using the NG-RAN access technology, the subscriber identifier and the credentials from the selected entry of the "list of subscriber data" or from USIM, if the PLMN subscription is selected, determined as follows:

- for bullet a) 1) above:

i) the entry of the "list of subscriber data" which contains the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" that includes the SNPN identity of the selected SNPN shall be considered as selected, if the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" that includes the SNPN identity of the selected SNPN is included in the entry of the "list of subscriber data" and validity information of the selected SNPN in the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" that includes the SNPN identity of the selected SNPN is met; or

ii) the PLMN subscription shall be considered as selected, if the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" associated with the PLMN subscription includes the SNPN identity of the selected SNPN and validity information of the selected SNPN in the "credentials holder controlled prioritized list of preferred SNPNs for access for localized services in SNPN" that includes the SNPN identity of the selected SNPN is met;

- for bullet a) 2) above:

i) the entry of the "list of subscriber data" which contains the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" that includes the GIN broadcast by the selected SNPN shall be considered as selected, if the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" that includes the GIN broadcasted by the selected SNPN is included in the entry of the "list of subscriber data" and validity information of the GIN in the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" that includes the GIN is met; or

ii) the PLMN subscription shall be considered as selected, if the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" associated with the PLMN subscription includes the GIN broadcast by the selected SNPN and validity information of the GIN in the "credentials holder controlled prioritized list of preferred GINs for access for localized services in SNPN" that includes the GIN is met;

- for bullet a) 3) above, the entry of the "list of subscriber data", with the SNPN identity matching the selected SNPN (this may take place at any time during the presentation of SNPNs), shall be considered as selected;

- for bullet b-1) above:

i) the entry of the "list of subscriber data" which contains the user controlled prioritized lists of preferred SNPNs that includes the SNPN identity of the selected SNPN shall be considered as selected, if the user controlled prioritized list of preferred SNPNs that includes the SNPN identity of the selected SNPN is included in the entry of the "list of subscriber data"; or

- the PLMN subscription shall be considered as selected, if the user controlled prioritized list of preferred SNPNs associated with the PLMN subscription includes the SNPN identity of the selected SNPN;

- for bullet b-2) above:

i) the entry of the "list of subscriber data" which contains the credentials holder controlled prioritized list of preferred SNPNs that includes the SNPN identity of the selected SNPN shall be considered as selected, if the credentials holder controlled prioritized list of preferred SNPNs that includes the SNPN identity of the selected SNPN is included in the entry of the "list of subscriber data"; or

ii) the PLMN subscription shall be considered as selected, if the credentials holder controlled prioritized list of preferred SNPNs associated with the PLMN subscription includes the SNPN identity of the selected SNPN;

- for bullet b-3) above:

i) the entry of the "list of subscriber data" which contains the credentials holder controlled prioritized list of GINs that includes the GIN broadcast by the selected SNPN shall be considered as selected, if the credentials holder controlled prioritized list of GINs that includes the GIN broadcast by the selected SNPN is included in the entry of the "list of subscriber data"; or

ii) the PLMN subscription shall be considered as selected, if the credentials holder controlled prioritized list of GINs associated with the PLMN subscription includes the GIN broadcast by the selected SNPN; and

- for bullet b-4) above, the entry of the "list of subscriber data" or the PLMN subscription shall be selected by MS implementation specific means.

NOTE1: If the SNPN identity of the selected SNPN is included in more than one of the following: one or more user controlled prioritized list(s) of preferred SNPNs configured in the ME, one or more credentials holder controlled prioritized list(s) of preferred SNPNs configured in the ME or the list of SNPNs which are broadcasting a GIN included in one or more credentials holder controlled prioritized list(s) of GINs configured in the ME, which subscription is selected is MS implementation specific.

Once the MS has registered on an SNPN selected by the user, the MS shall not automatically register on a different SNPN unless:

a) the user selects automatic SNPN selection mode;

b) the user initiates an emergency call while the MS is in limited service state and either the SNPN does not broadcast the indication of support of emergency calls in limited service state or the registration request for emergency services is rejected by the network; or

c) the new SNPN is declared as an equivalent SNPN by the registered SNPN.

NOTE 2: If case b) occurs, the MS can provide an indication to the upper layers that the MS has exited manual network SNPN selection mode.

If the user does not select an SNPN, the selected SNPN shall be the one that was selected either automatically or manually before the SNPN selection procedure started. If no such SNPN was selected or that SNPN is no longer available, then the MS shall attempt to camp on any acceptable cell and enter the limited service state.

\*\*\*end of change\*\*\*