**3GPP TSG-CT WG1 Meeting #136-eC1-22xxxx**

**E-Meeting, 12th – 20th May 2022 *was C1-223627***

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **4337** | **rev** | **1** | **Current version:** | **17.6.1** |  |
|  |
| *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:***  | No NSSAI provided to lower layer for onboarding service |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eNPN |  | ***Date:*** | 2022-05-01 |
|  |  |  |  |  |
| ***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 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)* |
|  |  |
| ***Reason for change:*** | As specified in TS23.501, the UE does not provided NSSAI in RRC when it registers for UE onboarding service, see below:*NOTE: As the configuration information in the UE does not include any S-NSSAI and DNN used for onboarding, the UE does not include S-NSSAI and DNN in RRC when it registers for UE onboarding purposes to the ONN.*This point is not captured in the current specification. |
|  |  |
| ***Summary of change:*** | Capture the UE doesn’t provide NSSAI to the lower layer when it registers for onboarding service. |
|  |  |
| ***Consequences if not approved:*** | The point mentioned is not captured int the current spec. |
|  |  |
| ***Clauses affected:*** | 4.6.2.3 |
|  |  |
|  | **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 \*\*\*\*\*

#### 4.6.2.3 Provision of NSSAI to lower layers in 5GMM-IDLE mode

The UE NAS layer may provide the lower layers with an NSSAI (either requested NSSAI or allowed NSSAI) when the UE in 5GMM-IDLE mode sends an initial NAS message.

NOTE: The value(s) used in the default configured NSSAI are expected to be commonly decided by all roaming partners, e.g. by the use of values standardized by 3GPP or other bodies.

The AMF may indicate, via the NSSAI inclusion mode IE of a REGISTRATION ACCEPT message, an NSSAI inclusion mode in which the UE shall operate over the current access within the current PLMN or SNPN, if any (see subclauses 5.5.1.2.4 and 5.5.1.3.4), where the NSSAI inclusion mode is chosen among the following NSSAI inclusion modes described in table 4.6.2.3.1.

Table 4.6.2.3.1: NSSAI inclusion modes and NSSAI which shall be provided to the lower layers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Initial NAS message | NSSAI inclusion mode A | NSSAI inclusion mode B | NSSAI inclusion mode C | NSSAI inclusion mode D |
| REGISTRATION REQUEST message:i) including the 5GS registration type IE set to "initial registration" | Requested NSSAI, if any | Requested NSSAI, if any | Requested NSSAI, if any | No NSSAI |
| REGISTRATION REQUEST message:i) including the 5GS registration type IE set to "mobility registration updating"; andii) initiated by case other than case g) or n) in subclause 5.5.1.3.2 | Requested NSSAI, if any | Requested NSSAI, if any | Requested NSSAI, if any | No NSSAI |
| REGISTRATION REQUEST message:i) including the 5GS registration type IE set to "mobility registration updating"; andii) initiated by case g) or n) in subclause 5.5.1.3.2 | Allowed NSSAI, if any | Allowed NSSAI, if any | No NSSAI, if any | No NSSAI |
| REGISTRATION REQUEST message:i) including the 5GS registration type IE set to "periodic registration updating" | Allowed NSSAI, if any | Allowed NSSAI, if any | No NSSAI | No NSSAI |
| SERVICE REQUEST message | Allowed NSSAI, if any | See NOTE 1 | No NSSAI | No NSSAI |
| NOTE 1: All the S-NSSAIs of the PDU sessions that have the user-plane resources requested to be re-established by the service request procedure or the S-NSSAIs of a control plane interaction triggering the service request is related to (see 3GPP TS 23.501 [8])NOTE 2: For a REGISTRATION REQUEST message which is triggered by emergency services or onboarding service, a DEREGISTRATION REQUEST message, a SERVICE REQUEST message which is triggered by onboarding service and a SERVICE REQUEST message which includes the service type IE set to "emergency services" or "emergency services fallback", no NSSAI is provided to the lower layers.NOTE 3: The mapped configured S-NSSAI(s) from the S-NSSAI(s) of the HPLMN are not included as part of the S-NSSAIs in the requested NSSAI or the allowed NSSAI when it is provided to the lower layers. |

The UE shall store the NSSAI inclusion mode:

a) indicated by the AMF, if the AMF included the NSSAI inclusion mode IE in the REGISTRATION ACCEPT message; or

b) decided by the UE, if the AMF did not include the NSSAI inclusion mode IE in the REGISTRATION ACCEPT message;

together with the identity of the current PLMN or SNPN and access type in a non-volatile memory in the ME as specified in annex C.

The UE shall apply the NSSAI inclusion mode received in the REGISTRATION ACCEPT message over the current access within the current PLMN and its equivalent PLMN(s) or the current SNPN, if any, in the current registration area.

When a UE performs a registration procedure to a PLMN which is not a PLMN in the current registration area or an SNPN, if the UE has no NSSAI inclusion mode for the PLMN or the SNPN stored in a non-volatile memory in the ME, the UE shall provide the lower layers with:

a) no NSSAI if the UE is performing the registration procedure over 3GPP access; or

b) requested NSSAI if the UE is performing the registration procedure over non-3GPP access.

When a UE performs a registration procedure after an inter-system change from S1 mode to N1 mode, if the UE has no NSSAI inclusion mode for the PLMN stored in a non-volatile memory in the ME and the registration procedure is performed over 3GPP access, the UE shall not provide the lower layers with any NSSAI over the 3GPP access.

\*\*\*\*\* End of changes \*\*\*\*\*