**3GPP TSG-CT WG1 Meeting #137-eC1-224883**

**E-Meeting, 18th – 26th August 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **4564** | **rev** | **-** | **Current version:** | **17.7.1** |  |
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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:*** | No NSSAI provided to lower layer for SERVICE REQUEST message | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | HiSilicon, Huawei | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc18 | | | | |  | ***Date:*** | | | 2022-08-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | For some cases, the service type IE in service request message triggered by emergency services is set to "high priority access". See below:  *For cases c), d), e), f), i), j), l) m) and n) in subclause 5.6.1.1, if the UE is a UE configured for high priority access in selected PLMN, the service type IE in the SERVICE REQUEST message shall be set to "high priority access".*  Based on current spec (only if the service type is “emergency services” or “emergency service fallback”, no NSSAI is provided to lower layer, see below), if the service type is set to “high priority access”, NSSAI is provided to the lower layer.  *NOTE 2: For a REGISTRATION REQUEST message which is triggered by emergency services, a DEREGISTRATION REQUEST message 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. If the UE performs initial registration for onboarding services in SNPN or is registered for onboarding services in SNPN, the UE NAS layer shall not provide the lower layers with an NSSAI.*  If NSSAI is provided to the lower layer, RAN may use NSSAI to select AMF and fail due to slice, and access attempts triggered by emergency services is rejected.  Hence, because of the same reason as in agreed CR C1-205494, it is proposed that a SERVICE REQUEST message which is triggered by emergency services, no NSSAI is provided to the lower layer. | | | | | | | | |
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| ***Summary of change:*** | | It is proposed: a SERVICE REQUEST message which is triggered by emergency services, no NSSAI is provided to the lower layer. | | | | | | | | |
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| ***Consequences if not approved:*** | | Access attempts triggered by emergency services is rejected due to slice. | | | | | | | | |
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| ***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.

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

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| --- | --- | --- | --- | --- |
| 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"; and ii) 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"; and ii) initiated by case g) or n) in subclause 5.5.1.3.2 | Allowed NSSAI, if any | Allowed NSSAI, if any | No NSSAI | 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, a DEREGISTRATION REQUEST message, and a SERVICE REQUEST message which is triggered by emergency services (e.g. a SERVICE REQUEST message includes the service type IE set to "emergency services" or "emergency services fallback", a SERVICE REQUEST message triggered for emergency services includes the service type IE set to “high priority access” as specified in clause 5.6.1.2.1), no NSSAI is provided to the lower layers. If the UE performs initial registration for onboarding services in SNPN or is registered for onboarding services in SNPN, the UE NAS layer shall not provide the lower layers with an NSSAI.  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 \*\*\*\*\*