**3GPP TSG-CT WG1 Meeting #141eC1-232713**

**Online 17– 21 April 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **5204** | **rev** | **2** | **Current version:** | **18.2.1** |  |
|  | | | | | | | | |
| *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 | **X** |

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| ***Title:*** | Network Slice replacement | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNS\_Ph3 | | | | |  | ***Date:*** | | | 2023-03-31 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | The current text for network slice replacement requires improvement to be consustent with stage 2. | | | | | | | | |
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| ***Summary of change:*** | | The CR proposes:   * Identifying whether the S-NSSAI is HPLMN S-NSSAI or VPLMN S-NSSAI. * Removal of EN and assing a note since it is now decided that it is one S-NSSAI at the time. * Correcting the format of clause 4.6.3.4so it does not have automatic numbering. | | | | | | | | |
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| ***Consequences if not approved:*** | | Stage 3 is not well defined. | | | | | | | | |
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| ***Clauses affected:*** | | 4.6.2.7, 4.6.3.4 | | | | | | | | |
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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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

-------------------------------------- Next Change --------------------------------------

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#### 4.6.2.7 Mobility management based network slice replacement

If the UE and network support network slice replacement, and the AMF determines that an S-NSSAI included in the allowed NSSAI needs to be replaced with an alternative S-NSSAI, the AMF provides the alternative S-NSSAI in the allowed NSSAI (if not included yet) and in the configured NSSAI (if not included yet) and the mapping information between the S-NSSAI to be replaced and the alternative S-NSSAI to the UE during UE configuration update procedure as follows:

a) for non-roaming UE, the AMF provides the mapping information between the S-NSSAI included in the allowed NSSAI and the alternative S-NSSAI to the UE; and

b) for roaming UE:

1) if the S-NSSAI included in the allowed NSSAI needs to be replaced (i.e. the S-NSSAI to be replaced is part of the VPLMN S-NSSAIs), the AMF provides the mapping information between the S-NSSAI included in the allowed NSSAI and the alternative S-NSSAI to the UE; and

2) if the S-NSSAI included in the mapped S-NSSAI(s) for the allowed NSSAI needs to be replaced (i.e. the S-NSSAI to be replaced is part of the HPLMN S-NSSAIs), the AMF provides the mapping information between the S-NSSAI and the alternative S-NSSAI to the UE.

NOTE: The alternative S-NSSAI may be part of or not part of the subscribed S-NSSAI(s) in the UE subscription.

Editor's note: (WI: eNS\_Ph3, CR: 5069) Whether an S-NSSAI included in the allowed NSSAI can be replaced with more than one alternative S-NSSAI is FFS.

-------------------------------------- Next Change --------------------------------------

#### 4.6.3.4 Session management based network slice replacement

If:

a) the UE and network support network slice replacement;

b) the UE is provided with the mapping information between the S-NSSAI to be replaced and the alternative S-NSSAI; and

c) the UE decides to establish a new PDU session with the S-NSSAI to be replaced,

the UE provides both the S-NSSAI to be replaced and the alternative S-NSSAI during PDU session establishment procedure. If the SMF receives both the S-NSSAI to be replaced and the alternative S-NSSAI during PDU session establishment procedure, the SMF proceeds with the PDU session establishment procedure with the alternative S-NSSAI. If the PDU session establishment request is accepted, the SMF includes the alternative S-NSSAI in the PDU session establishment accept message.

If the SMF receives from the AMF an alternative S-NSSAI for existing PDU session and:

a) if the SMF decides to retain the existing PDU session (i.e. the SMF can serve both the alternative S-NSSAI and the S-NSSAI to be replaced with), the SMF sends the alternative S-NSSAI to the UE during network-requested PDU session modification procedure; or

b) if the SMF decides to re-activate the existing PDU session and:

1) if the SSC mode of the PDU session is SSC mode 3, the SMF initiates PDU session modification procedure to trigger PDU session reactivation by the UE; or

2) if the SSC mode of the PDU session is SSC mode 1 or SSC mode 2, the SMF initiates PDU session release procedure to trigger PDU session reactivation by the UE.

-------------------------------------- End of Changes --------------------------------------