**3GPP TSG-WG SA2 Meeting #162S2-2404079**

**Changsha, China, Apr 15 – Apr 19, 2024 (revision of S2-24xxxxx)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **23.501** | **CR** | **5356** | **rev** | **-** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** | Network Slicing for Indirect Network Sharing | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19\_NetShare | | | | |  | ***Date:*** | | | 2024-04-05 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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:*** | | In case of Indirect Network Sharing, how to handle Network Slicing should be considered.  Compared to roaming case as defined in the clause 5.15.6, for Indirect Network Sharing, the broadcasted PLMN IDs include the PLMN IDs representing participating operators and a UE from participating operator selects a PLMN ID representing the participating operator. Therefore, the UE constructs Requested NSSAI based on the descriptions of non-roaming case. And the S-NSSAI from the Serving PLMN (i.e. hosting operator) sent to the UE only include S-NSSAI of participating operator’s value (i.e. HPLMN S-NSSAI).  After receiving the S-NSSAI of participating operator’s value from UE, the AMF determines the S-NSSAI of hosting operator’s value (i.e. VPLMN S-NSSAI) based on the S-NSSAI mapping agreement between hosting operator and participating operator and proceeds the Registration procedure and PDU Session Establishmemt for Home routed roaming based on the roaming case as defined in the clause 5.15.6 with the S-NSSAI of hosting operator’s value.  It is proposed to clarify the differences of Network Slice handling compared to the roaming case for Indirect Network Sharing. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add description on Network Slicing for Indirect Network Sharing to clarify the network will treat slicing as roaming case while the UE shall treat it as non-roaming in Indirect Network Sharing. | | | | | | | | |
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| ***Consequences if not approved:*** | | The Network Slicing for Indirect Network Sharing is not supported. | | | | | | | | |
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| ***Clauses affected:*** | | 5.18.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

### 5.18.5 Network Sharing and Network Slicing

As defined in clause 5.15.1, a Network Slice is defined within a PLMN or SNPN. Network sharing is performed among different PLMNs and/or SNPNs. In the case of network sharing, each PLMN or SNPN sharing the NG-RAN defines and supports its PLMN- or SNPN- specific set of slices that are supported by the common NG-RAN.

In the case of Indirect Network Sharing, the differences of Network Slicing handling compared to the roaming case as defined in the clause 5.15.6 are the following:

- The S-NSSAI(s) requested from UE and the S-NSSAI(s) from the Serving PLMN (i.e. hosting operator) sent to the UE only include the S-NSSAIs of participating operator’s value (i.e. HPLMN S-NSSAI).

- After receiving the S-NSSAI of participating operator’s value from UE, the AMF determines the S-NSSAI of hosting operator’s value (i.e. VPLMN S-NSSAI) based on the S-NSSAI mapping agreement between hosting operator and participating operator and proceeds the Registration procedure and PDU Session Establishment for Home routed roaming based on the roaming case as defined in the clause 5.15.6.

NOTE: Considering UE’s selected PLMN representing the participating operator, the UE constructs Requested NSSAI based on the descriptions of non-roaming case as defined in the clause 5.15.

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