**3GPP TSG-CT WG4 Meeting #99eC4-204109v1**

**E-Meeting, 18th – 28th August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.503** | **CR** | **0469** | **rev** | **-** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *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:*** | S-NSSAI in SM Context Retrieval | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI16 | | | | |  | ***Date:*** | | | 2020-08-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | When a UE requests multiple PDU sessions associated with the same DNN and S-NSSAI, the AMF may select the same SMF, as specified in TS23.502 clause 4.3.2.2.4:  *A UE may establish multiple PDU Sessions associated with the same DNN and S-NSSAI, and the AMF may select the same SMF or different SMFs as specified in clause 6.3.2 of TS 23.501 [2].*  *During PDU Session establishment, the AMF checks if the SMF selection subscription data indicates that the same SMF is required for multiple PDU Sessions, and if required, the AMF checks if any SMF is already selected for the same DNN and S-NSSAI, if so, the same SMF will be used for the additional PDU Session.*  *NOTE 1: The SMF ID can be notified from UDM to the AMF when one AMF is selected for 3GPP access in VPLMN and a different AMF is selected in HPLMN for non-3GPP access.*  *NOTE 2: The same SMF is selected for multiple PDU Sessions towards the same DNN and S-NSSAI to facilitate the selection of the same PCF e.g. for the purpose of usage monitoring.*  TS23.502 describes that the AMF may retrieve SMF Registration contexts from the UDM, to get information so as to select the same SMF.  Currently, the S-NSSAI is included in SmfRegistration structure when SMF performs SMF Registration to UDM. However, the S-NSSAI info is not included in the PduSession structure when the AMF retrieves UeContextInSmf from the UDM.  To support the requirement specified in clause 4.3.2.2.4 of TS23.502, it is proposed to add S-NSSAI in PduSession data structure. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | - Add S-NSSAI to PduSession structure;  - Update the OpenAPI accordingly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The AMF may not be able select the same SMF for multiple PDU sessions associated with the same DNN and S-NSSAI. | | | | | | | | |
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| ***Clauses affected:*** | | 6.1.6.2.17, A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 introduces backward compatible changes to the OpenAPI file TS29503\_Nudm\_SDM. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1:  In clause 6.1.6.2.17, change the singleNssai from mandatory to optional, and add NOTE to address when to including the S-NSSAI. | | | | | | | | |

*BEGIN OF CHANGES*

##### 6.1.6.2.17 Type: PduSession

Table 6.1.6.2.17-1: Definition of type PduSession

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| dnn | Dnn | M | 1 | Data Network Name with Network Identifier only. |
| smfInstanceId | NfInstanceId | M | 1 | NF Instance Id of the SMF |
| plmnId | PlmnId | M | 1 | PLMN Id of the SMF |
| singleNssai | Snssai | O | 0..1 | A single Network Slice Selection Assistance Information.  (NOTE) |
| NOTE: For supporting selection of the same SMF if a UE requests multiple PDU sessions associated with the same DNN and same S-NSSAI, the S-NSSAI associated to the PDU session is required to be included. | | | | |

*NEXT CHANGES*

## A.2 Nudm\_SDM API

\*\*\*\*\*\*\*\*TEXT SKIPPED\*\*\*\*\*\*\*\*

PduSession:

type: object

required:

- dnn

- smfInstanceId

- plmnId

properties:

dnn:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

smfInstanceId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/NfInstanceId'

plmnId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'

singleNssai:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

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*END OF CHANGES*