**3GPP TSG CT WG3 Meeting #142 *C3-253xxx***

**Goteborg, Sweden, 25 – 29 August, 2025 (Revision of C3-253289)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.522** | **CR** | **1678** | **rev** | **1** | **Current version:** | **19.3.0** |  |
|  | | | | | | | | |
| *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:*** | Complete the AF requested network slice replacement handling | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19\_SliceSel | | | | |  | ***Date:*** | | | 2025-7-08 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 23.503 specifies the AF request network slice termination as:  *After a successful slice replacement by the AF, the AF may request to terminate the network slice replacement and to use the Replaced S-NSSAI instead of the Alternative S-NSSAI. In this case, the PCF triggers the termination of the network slice replacement as described in clause 6.1.2.1.*  Further in clause 6.1.2.1, it states:  *The PCF triggers the termination of the network slice replacement for the UE from the Alternative S-NSSAI back to the Replaced S-NSSAI, including a Network Slice Replacement Type, to the AMF (see clause 5.15.5.2.2a of TS 23.501 [2]*  While in clause 5.15.5.2.2a of TS 23.501, it states:  *The trusted AF or a NEF may send request to PCF for the UE to terminate the Network Slice Replacement. In this case the PCF for the UE sends access and mobility management policies to the AMF, with the Slice replacement management information described in TS 23.503 [45] indicating that the Replaced S-NSSAI is available again*  According to current SA2 information, when AF request a termination, it also can include the slice replacement management information. However, in current stage 3 implementation, such information is not sent for the termination request and leave the possibility to AMF to save original intial requst and switch back to original replaced S-NSSAI and Alternative S-NSSAI. The stage 3 implementation is not fully aligned with SA2 requirement and also increase the requirement of AMF which is lacking of SA2 description as well. Therefore, an alignment with SA2 is carried out in this CR.  The attribute SliceReplReqInfoRm is defined in the AMPolicyAuthorization data type but reused in the AMInfluence API. However, in the OpenAPI implementation, SliceReplReqInfoRm is implemented in the AMInfluence API  Additionally, SliceReplReqInfoRm is not actually used in the AMPolicyAuthorization API. To maintain consistency with the OpenAPI and improve clarity, the data type definition of SliceReplReqInfoRm should be moved entirely to the AMInfluence API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Enable AF request network slice replacement termination over the AF/NEF interface.  Move the data type definition from AMPolicyAuthorization API to the AMInfluence API.  Update the reused data type in AMInfluence API. | | | | | | | | |
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| ***Consequences if not approved:*** | | The attribute is misdefined in different Procedure and OpenAPI will lead to implementation error. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.17.3.1, 5.17.3.3.6, 5.17.3.3.7, 5.18.3.1, 5.18.3.3.6(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 has no impact on OpenAPI | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* 1st Change \*\*\*

#### 5.17.3.1 General

This clause specifies the application data model supported by the AMPolicyAuthorization API.

Table 5.17.3.1-1 specifies the data types defined for the AMPolicyAuthorization API.

Table 5.17.3.1-1: AMPolicyAuthorization API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Clause defined | Description | Applicability |
| AppAmContextExpData | 5.17.3.3.2 | Represents an Individual application AM context exposure resource. |  |
| AppAmContextExpRespData | 5.17.3.5.1 | Represents a response to a modification or creation request of an Individual Application AM context resource. It may contain the notification of the already met events. |  |
| AppAmContextExpUpdateData | 5.17.3.3.3 | Represents the modification(s) to be applied to the Individual application AM context exposure resource. |  |
| SliceReplReq | 5.17.3.3.7 | Represents the requested Network Slice Replacement requirements. | AfNetSliceRepl |
| SliceReplReqInfo | 5.17.3.3.5 | Represents the AF requested Network Slice Replacement requirements information. | AfNetSliceRepl |
| SliceReplType | 5.17.3.4.3 | Represents the type of the requested Network Slice Replacement. | AfNetSliceRepl |
| GeographicalArea | 5.17.3.3.4 | Represents the geographical area information (e.g. a civic address or shapes). |  |

\*\*\* Next Change \*\*\*

##### 5.17.3.3.6 Void

\*\*\* Next Change \*\*\*

##### 5.17.3.3.7 Type: SliceReplReq

Table 5.17.3.3.7-1: Definition of type SliceReplReq

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| type | SliceReplType | M | 1 | Contains the type of the requested Network Slice Replacement. |  |
| afSliceReplReq | SliceReplReqInfo | C | 0..1 | Contains the AF requested Network Slice Replacement requirements information.  This attribute shall be present when the "type" attribute is set to "INITIATE\_AF\_REQ\_SLICE\_REP". |  |

\*\*\* Next Change \*\*\*

#### 5.18.3.1 General

This clause specifies the application data model supported by the AMInfluence API.

Table 5.18.3.1-1 specifies the data types defined for the AMInfluence API.

Table 5.18.3.1-1: AMInfluence API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Clause defined | Description | Applicability |
| AmInfluEvent | 5.18.3.4.3 | Represents the service area coverage outcome event. |  |
| AmInfluEventNotif | 5.18.3.3.4 | Represents an AM influence event notification. |  |
| AmInfluSub | 5.18.3.3.2 | Represents an AM influence subscription. |  |
| AmInfluSubPatch | 5.18.3.3.3 | Represents parameters to request the modification of an AM influence subscription resource. |  |
| DnnSnssaiInformation | 5.18.3.3.5 | Represents a (DNN, SNSSAI) combination. |  |
| SliceReplReqInfoRm | 5.18.3.3.6 | Represents the same as the SliceReplReqInfo data type specified in clause 5.17.3.3.5 but with the OpenAPI "nullable" property set to "true". | AfNetSliceRepl |

\*\*\* Next Change \*\*\*

##### 5.18.3.3.6 Type: SliceReplReqInfoRm

This data type is defined in the same way as the SliceReplReqInfo data type specified in clause 5.17.3.3.5 but with the OpenAPI "nullable" property set to "true".

\*\*\* End of Changes \*\*\*