**3GPP TSG-CT WG3 Meeting #125e *C3-225479***

**E-meeting, 14th - 18th, November, 2022**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.535** | **CR** | **0027** | **rev** | **-** | **Current version:** | **17.6.0** |  |
|  |
| *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** |

|  |
| --- |
|  |
| ***Title:***  | Cardinality for CtxRemove |
|  |  |
| ***Source to WG:*** | Huawei, Ericsson |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | AKMA-CT |  | ***Date:*** | 2022-10-11 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *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 canbe 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | In Table 5.1.6.2.3-1, the cardinality for supi is incorrect, should be 0..1 to match with the conditional property and is not required in the OpenAPI, while in TS 33.535 clause 7.1.4 Naanf\_AKMA\_Context\_Remove operation Input, Required: SUPI. Hence BC correction is needed in this specification. |
|  |  |
| ***Summary of change:*** | Correct cardinality for supi from 1 to 0..1 and update the table note stating supi shall be included in Table 5.1.6.2.3-1 and in the OpenAPI description. |
|  |  |
| ***Consequences if not approved:*** | Incorrect caridinality in the specification and not aligned with stage 2 requirement on SUPI. |
|  |  |
| ***Clauses affected:*** | 5.1.6.2.3, 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 a backward compatible correction in the OpenAPI file of the Naanf\_AKMA API. |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\* First Change \*\*\*

##### 5.1.6.2.3 Type: CtxRemove

Table 5.1.6.2.3-1: Definition of type CtxRemove

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| supi | Supi | C | 0..1 | SUPI of UE |  |
| NOTE: In current release of specification, only "supi" can be used to indicate the AKMA context to be remove. The "supi" attribute shall be included. |

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

# A.2 Naanf\_AKMA API

openapi: 3.0.0

info:

 title: 3gpp-akma

 version: 1.0.1

 description: |

 API for Naanf\_AKMA.

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externalDocs:

 description: 3GPP TS 29.535 V17.6.0; 5G System; AKMA Anchor Services.

 url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.535/'

security:

 - {}

 - oAuth2ClientCredentials:

 - naanf-akma

servers:

 - url: '{apiRoot}/naanf-akma/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501.

paths:

 /register-anchorkey:

 post:

 summary: Store AKMA related key material.

 operationId: RegisterAKMAKey

 tags:

 - Register the AKMA related key material

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/AkmaKeyInfo'

 responses:

 '200':

 description: The requested information was returned successfully.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/AkmaKeyInfo'

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /retrieve-applicationkey:

 post:

 summary: Request to retrieve AKMA Application Key information.

 operationId: GetAKMAAPPKeyMaterial

 tags:

 - Retrieve the AKMA Application key material (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: 'TS29522\_AKMA.yaml#/components/schemas/AkmaAfKeyRequest'

 responses:

 '200':

 description: The requested information was returned successfully.

 content:

 application/json:

 schema:

 $ref: 'TS29522\_AKMA.yaml#/components/schemas/AkmaAfKeyData'

 '204':

 description: No Content (The requested AKMA Application material does not exist.)

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /remove-context:

 post:

 summary: Request to remove the AKMA related key material.

 operationId: RemoveContext

 tags:

 - Remove the AKMA Application key material (deletion)

 requestBody:

 required: true

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/CtxRemove'

 responses:

 '204':

 description: No Content (The AKMA context for the UE has been removed successfully.)

 '307':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 naanf\_akma: Access to the Naanf\_AKMA API

 schemas:

 AkmaKeyInfo:

 description: Represents AKMA related key material.

 type: object

 properties:

 suppFeat:

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

 supi:

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

 aKId:

 $ref: 'TS29522\_AKMA.yaml#/components/schemas/AKId'

 kAkma:

 type: string

 required:

 - supi

 - aKId

 - kAkma

 CtxRemove:

 description: >

 Parameters to request to delete the AKMA context for the UE, the "supi" attribute shall be

 included.

 type: object

 properties:

 supi:

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

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