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

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***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 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-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 \*\*\*