**3GPP TSG-CT WG4 Meeting #99eC4-20xxxx**

**E-Meeting, 18th – 28th August 2020 *Revision of C4-204146***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.573** | **CR** | **0040** | **rev** | **1** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | N32f Error Type | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SBIProtoc16 | | | | |  | ***Date:*** | | | 2020-08-05 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | LS from GSMA: (C4-204047) *5GIS11\_02 LS GSMA 5GIS to 3GPP CT4 N32f\_ErrorTypes v3* indicates the additional error types shall be specified in N32fErrorType:  Unknown N32-f context, N32-f encryption key expired, N32-f integrity key expired, Cipher policy mismatch  Action: Propose to support  JWE decipher error:  Action: Propose to reuse the DECIPHERING\_FAILED | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Propose to support the additional error types in N32fErrorType | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | N23f errors cannot be indicated to the peer SEPP. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.4.5.2, 6.1.5.3.7, 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 corrections to the OpenAPI file for *N32 Handshake* API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

##### 6.1.4.5.2 Operation Definition

This operation shall support the request data structures and response codes specified in tables 6.1.4.5.2-1 and 6.1.4.5.2-2.

Table 6.1.4.5.2-1: Data structures supported by the POST Request Body

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| N32fErrorInfo | M | 1 | The IE shall contain the information about the N32-f message that failed to process at the SEPP initiating the N32-f error reporting procedure, together with information related to the nature of the error. |

Table 6.1.4.5.2-2: Data structures supported by the POST Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
|  |  |  | 204 No Content | This represents the successful processing of the N32-f error report at the receiving SEPP. |
| NOTE: The mandatory HTTP error status codes for the POST method listed in Table 5.2.7.1-1 of 3GPP TS 29.500 [4] other than those specified in the table above also apply, with a ProblemDetails data type (see clause 5.2.7 of 3GPP TS 29.500 [4]). | | | | |

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

##### 6.1.5.3.7 Enumeration: N32fErrorType

Table 6.1.5.3.7-1: Enumeration N32fErrorType

|  |  |
| --- | --- |
| Enumeration value | Description |
| "INTEGRITY\_CHECK\_FAILED" | The integrity check verification on the received N32-f message failed. |
| "INTEGRITY\_CHECK\_ON\_MODIFICATIONS\_FAILED" | The integrity check verification on the modifications block of the received N32-f message failed. |
| "MODIFICATIONS\_INSTRUCTIONS\_FAILED" | Failed to apply the JSON patch instructions in the modifications block of the received N32-f message. |
| "DECIPHERING\_FAILED" | The deciphering of the encrypted block of the received N32-f message failed. |
| "MESSAGE\_RECONSTRUCTION\_FAILED" | The reconstruction of the original HTTP/2 message from the received N32-f message failed. |
| "CONTEXT\_NOT\_FOUND" | The n32fContextId is unknown in the receiving SEPP. |
| "INTEGRITY\_KEY\_EXPIRED" | The integrity keys in the receiving SEPP have expired. |
| "ENCRYPTION\_KEY\_EXPIRED" | The encryption keys in the receiving SEPP have expired. |
| "POLICY\_MISMATCH" | The encryption policy verification on the received N32-f message has failed, e.g. protected IEs are not ciphered, or unprotected IEs are ciphered. |

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

## A.2 N32 Handshake API

openapi: 3.0.0

info:

version: '1.1.0'

title: 'N32 Handshake API'

description: |

N32-c Handshake Service.

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servers:

- url: '{apiRoot}/n32c-handshake/v1'

variables:

apiRoot:

default: https://example.com

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

externalDocs:

description: 3GPP TS 29.573 V16.3.0; 5G System; Public Land Mobile Network (PLMN) Interconnection; Stage 3

url: http://www.3gpp.org/ftp/Specs/archive/29\_series/29.573/

[…]

N32fErrorType:

anyOf:

- type: string

enum:

- INTEGRITY\_CHECK\_FAILED

- INTEGRITY\_CHECK\_ON\_MODIFICATIONS\_FAILED

- MODIFICATIONS\_INSTRUCTIONS\_FAILED

- DECIPHERING\_FAILED

- MESSAGE\_RECONSTRUCTION\_FAILED

- CONTEXT\_NOT\_FOUND

- INTEGRITY\_KEY\_EXPIRED

- ENCRYPTION\_KEY\_EXPIRED

- POLICY\_MISMATCH

- type: string

[…]

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