**3GPP TSG-CT WG3 Meeting #112eC3-205abc**

**E-Meeting, 4th – 13th November 2020 (Revision of C3-205313)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.122** | **CR** | **0314** | **rev** | **1** | **Current version:** | **16.7.0** |  |
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| *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:*** | Correction to NIDD configuration cancellation procedure | | | | | | | | | |
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| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NAPS-CT, TEI16 | | | | |  | ***Date:*** | | | 2020-10-09 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In TS 23.682 subclause 5.13.2 NIDD Configuration, Step 2 specify "If the Requested Action is set to "Cancel" it indicates the purpose of the request is to cancel the transaction identified by TLTRI and the flow proceeds to step 6.", which means NIDD configuration cancellation procedure shall skip step 2 to step 5, and no interaction between SCEF and HSS in the NIDD configuration cancellation procedure.  While in TS 29.122 subclause 4.4.5.2.1 description for NIDD configuration cancellation, Interaction between SCEF and HSS is included:" Upon successful deletion of requested NIDD configuration including the interaction with the HSS via S6t as specified in 3GPP TS 29.336 [11], the SCEF shall respond to the SCS/AS with a 200 OK success message indicating that the NIDD configuration was successfully cancelled." which is Not consistent with above TS 23.682 specification. | | | | | | | | |
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| ***Summary of change:*** | | Subclause 4.4.5.2.1: remove the description of including the interaction between SCEF and HSS in the NIDD configuration cancellation procedure, to be aligned with the description in TS 23.682. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incorrect specification of NIDD configuration cancellation procedure, arouse wrong implementation and Interoperability problems. | | | | | | | | |
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| ***Clauses affected:*** | | 4.4.5.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**…**

**Proposed changes:**

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

##### 4.4.5.2.1 NIDD Configuration for a single UE

For a NIDD configuration creation, the SCS/AS shall send an HTTP POST message to the SCEF for the "NIDD configurations" resource. The body of the HTTP POST message shall include External Identifier or MSISDN, SCS/AS Identifier, notification destination URI identifying the recipient of notification within the "notificationDestination" attribute and may include NIDD Duration, PDN Connection Establishment Option and Reliable Data Service Configuration. In addition, the SCS/AS may send non-IP data and its associated parameters (e.g. Priority) as described in subsclause 4.4.5.3.1 in the NIDD configuration creation request. The Reliable Data Service Configuration includes port numbers on UE and SCEF that are used to identify specific applications for data transfer between UE and SCS/AS and an indication if reliable data service acknowledgement is enabled or not.

Upon receipt of the HTTP POST request from the SCS/AS to create a NIDD configuration, the SCEF shall check whether the SCS/AS is authenticated and authorized to create NIDD configuration, and also authorize the NIDD configuration. If authorization is successful, the SCEF shall interact with the HSS via S6t as specified in 3GPP TS 29.336 [11]. Upon receipt of the successful response from the HSS, the SCEF shall store the UE identity (IMSI and External Identifier or MSISDN) which is associated with the External Identifier or MSISDN and create a resource "Individual NIDD configuration", which represents the NIDD configuration, addressed by a URI that contains the SCS/AS identity and an SCEF-created NIDD configuration identifier, and shall respond to the SCS/AS with a 201 Created message, including a Location header field containing the URI for the created resource. The body of the response message shall include Maximum Packet Size and may include Reliable Data Service Indication. When the SCS/AS receives the URI in the Location header, it shall use this URI in subsequent requests to the SCEF to refer to this NIDD configuration.

If the SCS/AS includes an downlink non-IP data together with the NIDD configuration creation, the SCEF shall also create an "Individual NIDD downlink data delivery" sub-resource and send each of the sub-resouce within the "self" attribute in the "niddDownlinkDataTransfers" attribute together with the created resource "Individual NIDD configuration" which included in the Location header field in the HTTP POST response. When the SCS/AS receives the URI the "self" attribute in the "niddDownlinkDataTransfers" attribute, it shall use this URI in subsequent requests to the SCEF to refer to this downlink data delivery transfer.

After sending the HTTP response to NIDD configuration request, the SCEF shall perform the procedure for individual MT NIDD as described in subclause 4.4.5.3.1.

NOTE: Any further interaction with the SCS/AS for the piggybacked individual MT NIDD is performed by the notification of NIDD downlink data delivery status.

For a NIDD configuration modification, the SCS/AS shall send an HTTP PATCH message to the SCEF for the "Individual NIDD configuration" resource, using the URI received in the response to the request that has created the NIDD configuration resource. Upon receipt of the HTTP PATCH request from the SCS/AS to update the parameters of the NIDD configuration, the SCEF shall check whether the SCS/AS is authenticated and authorized to update NIDD configuration. If the authorization is successful, the SCEF shall verify that the resource to be modified already exists as identified by the URI. If the NIDD configuration resource is found, the SCEF shall update the NIDD configuration as requested. Upon successful update of the requested NIDD configuration including the interaction with the HSS via S6t as specified in 3GPP TS 29.336 [11], the SCEF shall respond to the SCS/AS with a 200 OK success message indicating that the NIDD configuration resource was successfully updated.

For a NIDD configuration cancellation, the SCS/AS shall send an HTTP DELETE message to the SCEF for the "Individual NIDD configuration" resource, using the URI received in the response to the request that has created the NIDD configuration resource. Upon receipt of the HTTP DELETE message from the SCS/AS, the SCEF shall check whether the SCS/AS is authenticated and authorized to delete NIDD configuration. If the authorization is successful, the SCEF shall verify that the NIDD configuration resource identified by the URI already exists. If the configuration resource exists, the SCEF shall delete the requested configuration, and perform related NIDD procedure to EPC network elements if applicable. Upon successful deletion of requested NIDD configuration, the SCEF shall respond to the SCS/AS with a 200 OK success message indicating that the NIDD configuration was successfully cancelled. As an alternative to the 200 OK success message, the SCEF may send a 204 No Content success message without any message content to the SCS/AS.

When the NIDD Duration expires, the SCEF may remove the associated NIDD configuration resource and all individual downlink data delivery resources under such NIDD configuration.

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