**3GPP TSG-CT3 Meeting #121e C3-222169**

**E-Meeting, 6th – 12th April 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.522** | **CR** | **0580** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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:*** | Correction to AF service identifier | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | IIoT | | | | |  | ***Date:*** | | | 2022-04-12 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | If the DNN and S-NSSAI are omitted in the request, the NEF uses the AF-Service-Identifier to determine the target DNN and slicing information (S-NSSAI). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clarify that if the DNN and the S-NSSAI is omitted in the request, the NEF shall determine the corresponding DNN and S-NSSAI based on the received AF Service Identifier. | | | | | | | | |
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| ***Consequences if not approved:*** | | Not aligned with stage 2. Misleading proceduring, which may lead to incorrect implementations | | | | | | | | |
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| ***Clauses affected:*** | | 4.4.24.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 doesn’t impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

#### 4.4.24.1 Subscription to notification of Time Synchronization Capabilites

The procedures are used by the AF to subscribe to notifications and to explicitly cancel a previous subscription for UE availability for the time synchronization service via the NEF.

In order to subscribe to the notification for UE availability for the time synchronization service, the AF shall send an HTTP POST rmessage to the NEF to the customized operation URI "{apiRoot}/3gpp-time-sync/v1/{afId}/subscriptions". The HTTP POST message shall include the TimeSyncExposureSubsc data structure as request body. The TimeSyncExposureSubsc data structure shall include:

- one of the indication of the UEs to which the time synchronization capabilities is requested via:

- identification of a list of individual UEs within a "gpsis" attribute;

- indication of any UE within the "anyUeInd" attribute if DNN and S-NSSAI are provisioned; or

- identification of a group of UE(s) via a "exterGroupId" attribute.

- subscription to event(s) notification as "evSubsc" attribute;

- notification URI within the "subsNotifUri" attribute;

- notification correlation Id within the "subsNotifId" attribute;

and may include:

* either the DNN within the "dnn" attributeand the "snssai" attribute or the AF Service Identifier within the "afServiceId" attribute;
* the requested event filter(s) within the "eventFilters" attribute;
* notification methods within the "notifMethods" attribute
* maximum number of reports within the "maxReportNbr" attribute;
* expiry time within the "expiry" attribute; and
* report period within the "repPeriod" attribute.

In order to delete an existing subscription, the AF shall send an HTTP DELETE message to the NEF targeting the resource "Individual Time Synchronization Exposure Subscription".

Upon the reception of an HTTP POST request, if the AF is authorized, the NEF shall interact with the UDM by using Nudm\_SubscriberDataManagement service as defined in 3GPP TS 29.503 [17] to translate the GPSI or external group identifier into the corresponding SUPI or internal group identifier. If the DNN and the S-NSSAI is omitted in the request, the NEF shall determine the corresponding DNN and S-NSSAI based on the received AF Service Identifier. Then the NEF shall select a TSCTSF based on the local configuration or attempt to retrieve the TSCTSF from the UDR as defined in 3GPP TS 29.519 [23] if the NEF has not obtained the TSCTSF for the given DNN and S-NSSAI combination. If the NEF does not retrieve the TSCTSF from the UDR, the NEF shall select a TSCTSF from the NRF as defined in 3GPP TS 29.510 [x] and then store the selected TSCTSF in the UDR as defined in 3GPP TS 29.519 [23]. After the NEF obtains TSCTSF, the NEF shall invokes the Ntsctsf\_TimeSynchronization\_CapsSubscribe request service operation to the selected TSCTSF. If the NEF receives an error code from the TSCTSF, the NEF shall not create or delete the resource and shall respond to the AF with a proper error status code.

After receiving a successful response from the TSCTSF, the NEF shall,

- for an HTTP POST request, create an "Individual Time Synchronization Exposure Subscription" resource which represents the time synchronization exposure subscription request, addressed by a URI that contains the AF Identifier and a NEF-created configuration identifier, and shall respond to the AF with a 201 Created status code, including a Location header field containing the URI for the created resource. The AF shall use the URI received in the Location header in subsequent requests to the NEF to refer to this Time Synchronization Exposure Subscription.

- when the NEF receives the notification of the time synchronization capability for a list of UE(s) from the TSCSF by Ntsctsf\_TimeSynchronization\_CapsNotify service operation defined in 3GPP TS 29.565 [50], the NEF shall provide a notification to AF by sending HTTP POST message that include the TimeSyncExposureSubsNotif data structure in the request body. Upon receipt of the notification, the AF shall respond with a "204 No Content" status code to confirm the received notification.

- for an HTTP DELETE request, remove all properties of the resource and delete the corresponding active "Individual Time Synchronization Exposure Subscription" resource, then respond to the AF with a 204 No Content status code.

\* \* \* \* End of change \* \* \* \*