**3GPP TSG-4 Meeting # *C4-253529***

**Goteborg, Sweden, 25th August – 5 *revision of C4-253503***

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **531** | **CR** |  **0244** | **rev** | **2** | **Current version:** |  |  |
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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:***  | Text correction for Nnssf\_NSSAIAvailability Service |
|  |  |
| ***Source to WG:*** |  Oracle Corporation |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | TE19, eNS\_PH2 |  | ***Date:*** | 28 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | 9 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | 29.531 5.3.2.5.1 (as shown below) describes NSSF notification as part of the Nnssf\_NSSAIAvailability Service. This description indicates that the notification will be sent by the NSSF to its consumer (also) in the case when the availability of S-NSSAI(s) per TA has changed. There is no explanation for the possible causes of the availability change, as this is likely out of the scope of the 3GPP spec.However, 29.531 5.3.2.3.1 (shown below as well) indirectly implies in the yellow-highlighted text “upon this is updated by another AMF” that the cause for the NSSF notification is associated with previous AMF updates. First, it is unclear how NSSF availability notification to one AMF is related to updates done by another AMF??Second, even if there is a relation between the two, the cause for notifications should not be limited to only this case.**Therefore, this CR proposes to remove the yellow-highlighted text below, as it is confusing, misleading and above all - not needed.** 29.531 5.3.2.5.1 General“The Notify Service operation shall be used by the NSSF to update the NF Service Consumer (e.g. AMF) with any change in status, on a per TA basis, of the S-NSSAIs available per TA (unrestricted) and the S-NSSAIs restricted per PLMN in that TA in the serving PLMN of the UE.”29.531 5.3.2.3.1 Creation of a subscription“The Subscribe Operation is used by a NF Service Consumer (e.g. AMF, V-NSSF) to subscribe to a notification of:- Network Slice Replacement;- Network Slice Instance Replacement;- any changes in status of the NSSAI availability information (e.g. S-NSSAIs available per TA and the restricted S-NSSAI(s) per PLMN in that TA in the serving PLMN of the UE) upon this is updated by another AMF; and/or- any changes in the status of the NSSAI validity time information.” |
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| ***Summary of change:*** | This CR proposes to change the wording of “upon this is updated by another AMF” in clause 5.3.2.3.1.  |
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| ***Consequences if not approved:*** | Confusion and conflict between clauses 5.3.2.5.1 and 5.3.2.3.1. |
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| ***Clauses affected:*** | 5.3.2.3.1 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
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| ***This CR's revision history:*** | **Rev 1:** - Work Item code changed to TE19 and eNS\_Ph2* Updated the text to state “when this is updated by another AMF” to align with SA2 suggestion mentioned in TS 23.502 Clause 5.2.16.3.4

**Rev 2:**- Added in the Note referring to TS 23.502 |

\* \* \* \* First change \* \* \* \*

##### 5.3.2.3.1 Creation of a subscription

The Subscribe Operation is used by a NF Service Consumer (e.g. AMF, V-NSSF) to subscribe to a notification of:

- Network Slice Replacement;

- Network Slice Instance Replacement;

- any changes in status of the NSSAI availability information (e.g. S-NSSAIs available per TA and the restricted S-NSSAI(s) per PLMN in that TA in the serving PLMN of the UE) when updated by another AMF (as mentioned in TS 23.502 Clause 5.2.16.3.4) ; and/or

- any changes in the status of the NSSAI validity time information.



Figure 5.3.2.3.1-1 Create a subscription

1. The NF Service Consumer shall send a POST request to create a subscription resource in the NSSF. The content of the POST request shall contain a representation of the individual event subscription resource to be created in the NssfEventSubscriptionCreateData.

The request shall indicate the type(s) of events for which the subscription is created, i.e., Network Slice Replacement, Network Slice Instance Replacement, any changes in the status of the NSSAI validity time information and/or of any changes in status of the NSSAI availability information.

The request may contain an expiry time, suggested by the NF Service Consumer as a hint, representing the time upto during which the subscription is desired to be kept active and describes the maximum duration after which the subscribed event shall stop generating report.

The request may also indicate a specific AMF Set to restrict the subscriptions to notifications applicable to the AMF Set (i.e. notifications related to S-NSSAIs supported by the AMF Set). If the AMF Set is provided and the NSSF support the "SATAS" feature (see clause 6.2.8), the NF Service Consumer may also indicate that the subscription is for all TAI(s) associated with the AMF Set.

If the service operation is invoked for subscription to Network Slice Replacement notification, then the request shall contain:

- for VPLMN S-NSSAI: the list of S-NSSAIs in the VPLMN served by the NF Service Consumer that may be replaced with, the NF type of the NF Service Consumer (e.g., AMF) and the NF instance ID of the requester NF.

- for HPLMN S-NSSAI: the list of S-NSSAIs in the HPLMN that the S-NSSAI may be replaced with, the NF type of the NF Service Consumer (e.g., AMF, V-NSSF), the NF instance ID of the requester NF and the HPLMN ID.

If the service operation is invoked for subscription to Network Slice Instance Replacement notification, then the request shall contain:

- the list of S-NSSAIs and/or the list of NSI IDs that may become congested or no longer available.

2. On success, "201 Created" shall be returned, and the content of the POST response shall contain the representation describing the status of the created subscription in NssfEventSubscriptionCreatedData.

For a subscription to any changes in status of the NSSAI availability information, the NssfEventSubscriptionCreatedData may contain the AuthorizedNssaiAvailabilityData information, if available.

If there is no supported S-NSSAIs authorized by the NSSF for the TA, the NSSF shall not return the AuthorizedNssaiAvailabilityData for the corresponding TA in the response.

The Location header shall contain the location (URI) of the created subscription resource.

The response, based on operator policy and taking into account the expiry time included in the request, may contain the expiry time, as determined by the NSSF, after which the subscription becomes invalid. Once the subscription expires, if the NF Service Consumer wants to keep receiving notifications, it shall create a new subscription in the NSSF. The NSSF shall not provide the same expiry time for many subscriptions in order to avoid all of them expiring and recreating the subscription at the same time. If the expiry time is not included in the response, the NF Service Consumer shall consider the subscription to be valid without an expiry time.

If the request is subscribing to more than one events, the response may contain the acceptedEvents IE to indicate the list of events that are accepted by the NSSF in the created subscription.

On failure or redirection, the NSSF shall return one of the HTTP status code together with the response body listed in Table 6.2.3.3.3.1-2.

\* \* \* \* End of changes \* \* \* \*