**SA WG2 Meeting #143e S2-2100068**

**Feb 24th – March 9th, 2021 ; Elbonia (revision of S2-2002041)**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **23.502** | **CR** | **2455** | **rev** | **-** | **Current version:** | **16.7.1** |  |
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| *For* [***HELP***](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:***  | Support of different slices over different Non 3GPP access |
|  |  |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | S2 |
|  |  |
| ***Work item code:*** | TEI17\_N3SLICE |  | ***Date:*** | 2021-01-18 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Per Current 3GPP specifications, * the AMF receives from the 5G AN (in N3GPP case: N3IWF / TNGF / W-AGF) information on the slices (S-NSSAI) supported by the 5G AN TA(s). This is done as part of NG set up request (38.413)

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| >>>>TAI Slice Support List | M |  | Slice Support List9.3.1.17 | **Supported S-NSSAIs per TA**. | - |  |

* **all the 5G AN (N3IWF / TNGF / W-AGF) correspond to the same unique TA**

This mean that **support of slices has to be homogeneous between (Un)trusted Non 3GPP access (N3IWF/TNGF) and wireline access** (W-AGF) as well as between different **wireline** AN of a PLMN;This looks like an un-necessary restriction. The corresponding WID is in SP-200456 |
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| ***Summary of change:*** | Support the possibility for operators to allocate a TAI per non 3GPP 5G AN (e.g. N3IWF / TNGF / W-AGF) : each non 3GPP access gateway is locally configured with its own TAI and the slices it supports. The TAI value is provided (as in case of 3GPP access) to AMF over N2 in NG SET UP message. There is one TAI value per non 3GPP access gateway.Different non 3GPP access gateways (e.g. different N3IWF / TNGF / W-AGF) can thus advertise different TAI values, and can support different slices.As TAI values are not advertised over Non 3GPP access, UE(s) do not need to be aware of the fact that different non 3GPP access gateways may correspond to a different TAI beyond the fact that they (UE) may receive different TAI values within the TAI list sent by the network over successive registration over non 3GPP access. |
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| ***Consequences if not approved:*** | Support of slices has to be homogeneous between (Un)trusted Non 3GPP access (N3IWF/TNGF) and wireline access (W-AGF) as well as between different wireline AN of a PLMN. |
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| ***Clauses affected:*** | 4.2.7.1 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 23.501 CR |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | **From:** antoine.mouquet@orange.com <antoine.mouquet@orange.com> **Sent:** Monday, January 4, 2021 3:47 PM |

*FIRST CHANGE*

#### 4.2.7.1 N2 Configuration

At power up, restart and when modifications are applied, the 5G-AN node and AMF use non-UE related N2 signalling to exchange configuration data. Full details of this configuration data are specified in TS 38.413 [10], but the following highlights some aspects.

The AMF supplies the 5G-AN node with information about:

a) the AMF Name and the GUAMI(s) configured on that AMF Name;

b) the set of TNL associations to be established between the NG-RAN node and the AMF;

c) weight factor associated with each of the TNL association within the AMF; and

d) weight factor for each AMF Name within the AMF Set; and

e) (optional) for each GUAMI(s) configured on that AMF the corresponding backup AMF Name.

The weight factors are used for load distribution of the initial N2 messages. The AMF chooses whether or not to use the same TNL association for the initial N2 message and subsequent messages for that UE. TNL associations configured with a weight factor set to zero are not permitted for the initial N2 message, but can be used for subsequent N2 messages.

Deployments that rely solely on 5GC-based load balancing can set the weight factors associated with TNL associations that are permitted for the initial N2 message to the same value.

The 5G-AN supplies over N2 the AMF with information about the Tracking Area(s) it serves and the S-NSSAI(s) it supports in each of these Tracking Area. See TS 23.501 [2] clause 5.3.2.3.

*NEXT CHANGE (2)*

*NEXT CHANGE (3)*

*NEXT CHANGE (4)*

*NEXT CHANGE (5)*

*END OF CHANGES*