**3GPP TSG-CT WG1 Meeting #136-eC1-22xxxx**

**Electronic meeting, 12-20 May 2022**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** |  | **rev** |  | **Current version:** | **17.6.1** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | UE parameter update data set for ME routing indicator update data | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | LG Electronics | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eNPN | | | | |  | ***Date:*** | | | 2022-05-05 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17. (Release 17)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The UE parameter update data set type has two different routing indicator. But, there is no explanation for which routing indicator is used.    According to the TS23.501 subclause 4.20, the HPLMN, SNPN, or CH updates such parameters based on the operator policies.  …  the updated Routing Indicator Data (final consumer of the parameter is the USIM when the related credential is stored in the USIM, i.e. for PLMN or SNPN credentials; or final consumer of the parameter is the ME when the related credential is stored in the ME, i.e. for SNPN credentials).  So, for some situation, it is need to add which UE parameter update data set type is set. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | When the Routing indicator is updated, if the SNPN uses the EAP based primary authentication and key agreement procedure using the EAP-AKA' or the 5G AKA based primary authentication and key agreement procedure, UE parameter update data set type is “ME routing indicator update data”. Otherwise, UE parameter update data set type is “routing indicator update data”. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Specification completion. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.11.3.53A | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

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

#### 9.11.3.53A UE parameters update transparent container

The purpose of the UE parameters update transparent container when sent from the network to the UE is to provide UE parameters update data, optional acknowledgement request and optional re-registration request. The purpose of the UE parameters update transparent container when sent from the UE to the network is to indicate the UE acknowledgement of successful reception of the UE parameters update transparent container.

The UE parameters update transparent container information element is coded as shown in figure 9.11.3.53A.1, figure 9.11.3.53A.2, figure 9.11.3.53A.3, figure 9.11.3.53A.4, figure 9.11.3.53A.4B, figure 9.11.3.53A.5, figure 9.11.3.53A.6, figure 9.11.3.53A.7 and table 9.11.3.53A.1.

The UE parameters update transparent container is a type 6 information element with a minimum length of 20 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| UE parameters update transparent container IEI | | | | | | | | octet 1 |
| Length of UE parameters update transparent container contents | | | | | | | | octet 2  octet 3 |
| UE parameters update header | | | | | | | | octet 4 |
| UPU-MAC-IAUSF | | | | | | | | octet 5-20 |
| CounterUPU | | | | | | | | octet 21-22 |
| UE parameters update list | | | | | | | | octet 23\* - n\* |

Figure 9.11.3.53A.1: UE parameters update transparent container information element for UE parameters update data type with value "0"

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | | 7 | | 6 | | 5 | | 4 | 3 | 2 | 1 | |  | |
| 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | UE parameters update data set 1 type | | | | | octet 23\* | |
| Length of UE parameters update data set 1 | | | | | | | | | | | | | octet 24\*-  25\* | |
| UE parameters update data set 1 | | | | | | | | | | | | | octet 26\*-  x\* | |
| … | | | | | | | | | | | | |  | |
| 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | UE parameters update data set n type | | | | | octet y\* | |
| Length of UE parameters update data set n | | | | | | | | | | | | | octet y+1\*-  y+2\* | |
| UE parameters update data set n | | | | | | | | | | | | | octet y+3\*-  n\* | |

Figure 9.11.3.53A.2: UE parameters update list

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Secured packet | | | | | | | | octet a\* - a+z\* |

Figure 9.11.3.53A.3: UE parameters update data set for UE parameters update data set type with value "0001"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Default configured NSSAI | | | | | | | | octet b\* -  c\* |

Figure 9.11.3.53A.4: UE parameters update data set for UE parameters update data set type with value "0010"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| 0  Spare | 0  Spare | 0  Spare | 0  Spare | 0  Spare | 0  Spare | AOL | DREI | octet d\* |

Figure 9.11.3.53A.4A: UE parameters update data set for UE parameters update data set type with value "0011"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Routing indicator digit 2 | | | | Routing indicator digit 1 | | | | octet e\* |
| Routing indicator digit 4 | | | | Routing indicator digit 3 | | | | octet (e+1)\* |

Figure 9.11.3.53A.4B: UE parameters update data set for UE parameters update data set type with value "0100"

|  |  |
| --- | --- |
| UE parameters update transparent container IEI | octet 1 |
| Length of UE parameters update transparent container contents | octet 2  octet 3 |
| UE parameters update header | octet 4 |
| UPU-MAC-IUE | octet 5 - 20 |

Figure 9.11.3.53A.5: UE parameters update transparent container information element for UE parameters update data type with value "1"

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | | 7 | | 6 | | 5 | | 4 | | 3 | | 2 | | 1 | |  | |
| 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | 0  Spare | | REG | | ACK | | UPU data type | | octet 4 | |

Figure 9.11.3.53A.6: UE parameters update header for UE parameters update data type with value "0"

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| 0  Spare | 0  Spare | 0  Spare | 0  Spare | 0  Spare | 0  Spare | 0  Spare | UPU data type | octet 4 |

Figure 9.11.3.53A.7: UE parameters update header for UE parameters update data type with value "1"

Table 9.11.3.53A.1: UE parameters update transparent container information element

|  |  |
| --- | --- |
| UPU-MAC-IAUSF, UPU-MAC-IUE and CounterUPU are coded as specified in 3GPP TS 33.501 [24] | |
|  | |
| UPU data type (octet 4, bit 1) | |
| 0 | The UE parameters update transparent container carries a UE parameters update list |
| 1 | The UE parameters update transparent container carries an acknowledgement of successful reception of a UE parameters update list |
|  | |
| Acknowledgement (ACK) value (octet 4, bit 2) | |
| 0 | acknowledgement not requested |
| 1 | acknowledgement requested |
|  | |
| Re-registration (REG) value (octet 4, bit 3) | |
| 0 | re-registration not requested |
| 1 | re-registration requested |
|  | |
| UE parameters update data set type | |
| Bits  4 3 2 1 | |
| 0 0 0 1 Routing indicator update data | |
| 0 0 1 0 Default configured NSSAI update data | |
| 0 0 1 1 Disaster roaming information update data | |
| 0 1 0 0 ME routing indicator update data | |
|  | |
| All other values are reserved | |
|  | |
| Disaster Roaming Enabled Indication (DREI) value (octet d\*, bit 1) | |
| |  |  | | --- | --- | | 0 | Disaster roaming is disabled in the UE | | 1 | Disaster roaming is enabled in the UE | | |
|  | |
| Indication of 'applicability of "lists of PLMN(s) to be used in disaster condition" provided by a VPLMN' (AOL) value (octet d\*, bit 2) | |
| |  |  | | --- | --- | | 0 | false | | 1 | true | | |
|  | |
| The secured packet is coded as specified in 3GPP TS 31.115 [22B]. | |
|  | |
| The default configured NSSAI is encoded as the value part of the NSSAI IE (see subclause 9.11.3.37). | |
|  | |
| Routing indicator | |
| Routing indicator is encoded as the routing indicator field of the 5GS mobile identity IE (see subclause 9.11.3.4). | |
| NOTE: When the Routing indicator is updated, if the SNPN uses the EAP based primary authentication and key agreement procedure using the EAP-AKA' or the 5G AKA based primary authentication and key agreement procedure, UE parameter update data set type is set to “ME routing indicator update data”. Otherwise, UE parameter update data set type is set to “routing indicator update data”. | |

\*\*\* final change \*\*\*