**3GPP TSG-CT WG1 Meeting #138-eC1-22XXXX**

**E-Meeting, 10th – 14th October 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **24.302** | **CR** | **0731** | **rev** | **2** | **Current version:** | **17.6.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Connectivity for NSWO authentication |
|  |  |
| ***Source to WG:*** | Lenvo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | NSWO\_5G |  | ***Date:*** | 2022-10-10 |
|  |  |  |  |  |
| ***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 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:*** | Clause 6.3.12b in TS 23,501 defines a new list of PLMNs advertized by a discovered WLAN which can be used by the UE with the HPLMN listed in the new list of PLMNs to connect to use the 5G NSWO authentication procedure defined in TS 33.501.Currecnt text in clause H.2.4.2 Is too broad and cover connectetion by WLAN and should be limited to AAA connectivity to EPC. |
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| ***Summary of change:*** | Added and identity and definition of a new information element for the list of PLMNs with AAA connectivity to a 5GC.Corrected the wording for the PLMNs with AAA connectivity to an EPC. |
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| ***Consequences if not approved:*** | The UE with NSWO capability cannot identify PLMNs for connecting to NSWO to perform 5G NSWO authentication procedure defined in TS 33.501. |
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| ***Clauses affected:*** | H.2.4.1,H.4.2.4, H.2.4.X (new) |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NEXT CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

### H.2.4.1 Information Element Identity (IEI)

Indicates the information element identity. The following values for IEI are defined in this version of the specification:

00000000 PLMN List

00000001 PLMN List with S2a connectivity

00000010 PLMN List with trusted 5G connectivity

00000011 PLMN List with trusted 5G connectivity-without-NAS

00000100 PLMN List with AAA connectivity to 5GC

00000101

 To

11111111 Reserved

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NEXT CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

### H.2.4.2 PLMN List IE

The PLMN List information element is used by WLAN to indicate the PLMNs deploying the AAA function, so that the WLAN provides AAA connectivity to EPC. The format of the PLMN List information element coded according to 3GPP TS 24.007 [48] clause 11.2.2.1 is shown in figure H.2.4.2-1.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |  |
| PLMN List IEI | octet 1 |
| Length of PLMN List value contents | octet 2 |
| Number of PLMNs | octet 3 |
| PLMN information, PLMN 1 | octet 4octet 5octet 6 |
|  |  |
| PLMN information, PLMN N | octet N+1octet N+2octet N+3 |

Figure H.2.4.2-1: *PLMN List* information element

The "Number of PLMNs" (octet 3) contains the number of PLMN information items in the list. Bit 7 of octet 3 is the most significant bit and bit 0 of octet 3 the least significant bit.

The format of the PLMN information item according to 3GPP TS 24.007 [48] clause 11.2.2.1 is shown in figure H.2.4.2-2:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |  |
| MCC digit 2 | MCC digit 1 | octet X |
| MNC digit 3 | MCC digit 3 | octet X+1 |
| MNC digit 2 | MNC digit 1 | octet X+2 |

Figure H.2.4.2-2: *PLMN information* item of the PLMN List IE

Table H.2.4.2-1 shows the coding of the MCC and MNC in the PLMN information item.

Table H.2.4.2-1: *PLMN information* item of PLMN List IE

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| **MCC**, Mobile country code (octet X, octet X+1 bits 1 to 4)The MCC field is coded as in ITU-T Rec. E212 [63], Annex A. **MNC**, Mobile network code (octet X+2, octet X+1 bits 5 to 8).The coding of this field is the responsibility of each administrationbutBCDcodingshall be used. The MNC shall consist of 2 or 3 digits. For PCS 1900 for North America, Federal Regulation mandates that a 3-digit MNC shall be used. However a network operator may decide to use only two digits in the MNC over the radio interface. In this case, bits 5 to 8 of octet X+1 shall be coded as "1111". Mobile equipment shall accept MNC coded in such a way. |

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* NEXT CHANGE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

### H.2.4.X PLMN List with AAA connectivity to 5GC IE

The PLMN List with AAA connectivity to 5GC information element is used by the WLAN to indicate the PLMNs deploying AAA function, so that the WLAN provides AAA connectivity to 5GC to perform 5G NSWO procedures as specified in annex S of 3GPP TS 33.501 [78].

The format of the PLMN List with AAA connectivity to 5GC information element is identical to the format of the PLMN List information element defined in clause H.2.4.2.

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END OF CHANGES \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***