**3GPP TSG-CT WG1 Meeting #141-eC1-23xxxx**

**E-meeting, 17th – 21st April 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **23.122** | **CR** | 1073 | **rev** | **-** | **Current version:** | **18.2.0** |  |
|  |
| *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 |  |

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| ***Title:***  | Adding USAT REFRESH for updating operator threshold for SENSE  |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon, Deutsche Telekom |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | SENSE |  | ***Date:*** | 2023-04-03 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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) Rel-19 (Release 19)* |
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| ***Reason for change:*** | There is an SA1 requirement to update "Operator controlled signal threshold per access technology" by the HPLMN. So it is proposed to use USAT REFRESH command for the purpose as "Operator controlled signal threshold per access technology" can be modified via any RAT. |
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| ***Summary of change:*** | Added in the general section that the UE may receive operator threshold in SOR information and ME can be updated via USAT REFRESH command. |
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| ***Consequences if not approved:*** | Updation of operator threshold not supported. |
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| ***Clauses affected:*** | 3.11 |
|  |  |
|  | **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 \* \* \* \*

## 3.11 Signal level enhanced network selection

Signal level enhanced network selection applies only to NB-IoT, GERAN EC-GSM-IoT and Category M1 or M2 of E-UTRA. An MS supporting any, or a combination, of NB-IoT, GERAN EC-GSM-IoT and Category M1 or M2 of E-UTRA shall apply signal level enhanced network selection if the following conditions are fulfilled:

1) The MS is in automatic PLMN selection mode;

2) The MS supports the "Operator controlled signal threshold per access technology" as specified in 3GPP TS 22.011 [19];

3) The MS is configured for using signal level enhanced network selection as specified in 3GPP TS 24.368 [50]; and

4) The "Operator controlled signal threshold per access technology" is configured in the USIM.

NOTE 1: The usage of the "Operator controlled signal threshold per access technology" is intended only for IoT stationary devices (see 3GPP TS 22.011 [19]).

NOTE 2: "Operator controlled signal threshold per access technology" is not expected to be supported by non-IoT devices.

The MS can be configured with an "Operator controlled signal threshold per access technology" stored in the USIM (see 3GPP TS 31.102 [40]) consisting of one or more entries, each containing:

a) a home operator controlled signal threshold; and

b) an access technology.

The "Operator controlled signal threshold per access technology" is specific for a certain access technology and when applicable, applies to all allowable PLMNs with the corresponding access technology combination.

The HPLMN can update the "Operator controlled signal threshold per access technology" via steering of roaming information. When the ME receives a USAT REFRESH command indicating that the "Operator controlled signal threshold per access technology" stored in the USIM has been updated, an MS which applies SENSE shall use the "Operator controlled signal threshold per access technology" provided by the HPLMN for the subsequent PLMN selections.

Editor's note (WI SENSE, CR 0952): It is FFS whether HPLMN can use CP-SOR procedure to update the signal level enhanced network selection in the USIM.

\* \* \* End of Change \* \* \* \*