**3GPP TSG-CT WG1 Meeting #123-eC1-202645**

**Electronic meeting, 16-24 April February 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **24.301** | **CR** | **3339** | **rev** | **2** | **Current version:** | **16.4.0** |  |
|  |
| *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:***  | Clarification for the use of enhanced coverage in EPS |
|  |  |
| ***Source to WG:*** | Samsung, Huawei, HiSilicon, InterDigital |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | TEI16, CIoT\_Ext-CT |  | ***Date:*** | 2020-04-02 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | The current text suggests that the UE always applies extended NAS timers for enhanced coverage. However, this should only be the case if the network has allowed the use of enhanced coverage. This condition is currently missing and should be added for the UE. |
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| ***Summary of change:*** | Clarify that the UE applies extended timers if the network indicates that the use of enhanced coverge is not restricted or CE mode B is not restricted. |
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| ***Consequences if not approved:*** | The UE erroneously applies extended NAS timers even if the network indicates that enhanced coverge is restricted or CE mode B is restricted. |
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| ***Clauses affected:*** | 4.8 |
|  |  |
|  | **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:*** |  |

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

## 4.8 EPS mobility management and EPS session management in WB-S1 mode for IoT

In WB-S1 mode, a UE operating in category CE can operate in either CE mode A or CE mode B (see 3GPP TS 36.306 [44]). If a UE that supports CE mode B and operates in WB-S1 mode, the UE's usage setting is not set to "voice centric" (see 3GPP TS 23.401 [10]), and:

a) the use of enhanced coverge is not restricted for the UE; or

b) CE mode B is not restricted for the UE (see 3GPP TS 23.401 [10]);

the UE shall apply the value of the applicable NAS timer indicated in tables 10.2.1 and indicated in table 10.3.1 for WB-S1/CE mode.

A UE that supports CE mode B and operates in WB-S1 mode shall not apply the value of the applicable NAS timer indicated in table 10.2.1 and table 10.3.1 for WB-S1/CE mode before receiving an indication from the network that the use of enhanced coverage is not restricted as described in this subclause.

The NAS timer value obtained is used as described in the appropriate procedure subclause of this specification. The NAS timer value shall be calculated at start of a NAS procedure, and shall not be re-calculated until the NAS procedure is completed, restarted or aborted.

The support of CE mode B by a UE is indicated to the MME by lower layers and shall be stored by the MME. When an MME that supports WB-S1 mode performs NAS signaling with a UE, which supports CE mode B and operates in WB-S1 mode and the MME determines that

a) the use of enhanced coverge is not restricted for the UE; or

b) CE mode B is not restricted for the UE (see 3GPP TS 23.401 [10])

the MME shall calculate the value of the applicable NAS timer indicated in tables 10.2.2 and indicated in table 10.3.2 for WB-S1/CE mode.

The NAS timer value obtained is used as described in the appropriate procedure subclause of this specification. The NAS timer value shall be calculated at start of a NAS procedure and shall not be re-calculated until the NAS procedure is completed, restarted or aborted.

\*\*\*\*\*\* END CHANGE \*\*\*\*\*\*