**3GPP TSG-CT WG1 Meeting #128-eC1-211252**

**Electronic meeting, 25 February – 5 March 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **23.122** | **CR** | **0657** | **rev** | **3** | **Current version:** | **17.1.1** |  |
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| *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:***  | UE behavior upon receiving new timer valuer for Tsor-cm timer |
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| ***Source to WG:*** | SHARP, vivo, NTT DOCOMO |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eCPSOR\_CON |  | ***Date:*** | 2021-02-18 |
|  |  |  |  |  |
| ***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:*** | The UE behavior is not clear in the following situation:*When the UE receives new SOR-CMCI while one or more Tsor-cm timers are running.*In this situation, the UE should check if there is a matching criterion found for any ongoing PDU session or service in the new SOR-CMCI.If there is a matching criterion found for any ongoing PDU session or service in the new SOR-CMCI, and the value of Tsor-cm timer in the new SOR-CMCI is smaller than the value of the running Tsor-cm timer, the UE should apply the new Tsor-cm timer with the value in the new SOR-CMCI to the associated PDU session or service, with the exception when the Tsor-cm value equals infinity. |
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| ***Summary of change:*** | Add the UE behavior when the UE receives new SOR-CMCI while one or more Tsor-cm timers are running. |
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| ***Consequences if not approved:*** | May lead to fragmented UE side behavior that results in fragmentation in enhanced SoR timing. |
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| ***Clauses affected:*** | C.4.2 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

\* \* \* Change \* \* \* \*

## C.4.2 Applying SOR-CMCI in the UE

During SOR procedure and while applying SOR-CMCI, the UE shall determine the time to release the PDU session(s) as follows:

- The SOR-CMCI rules included in SOR-CMCI, where for each criterion:

a) DNN of the PDU session:

 the UE shall check whether it has a PDU session with a DNN matching to the DNN included in SOR-CMCI, and if any, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

b) S-NSSAI of the PDU session:

 the UE shall check whether it has a PDU session with a S-NSSAI matching the S-NSSAI included in SOR-CMCI, and if any, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

c) IMS registration related signalling:

 the UE shall check whether IMS registration related signalling is ongoing as specified in 3GPP TS 24.501 [64], and if it is ongoing, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

d) MMTEL voice call:

 the UE shall check whether MMTEL voice call is ongoing as specified in 3GPP TS 24.501 [64], and if it is ongoing, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

e) MMTEL video call:

 the UE shall check whether MMTEL video call is ongoing as specified in 3GPP TS 24.501 [64], and if it is ongoing, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

f) MO SMS over NAS or MO SMSoIP:

 the UE shall check whether MO SMS over NAS or MO SMSoIP services is ongoing as specified in TS 24.501 [64], and if it is ongoing, the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI; or

g) match all:

 the UE shall set the associated timer Tsor-cm to the value included in the SOR-CMCI;

- otherwise, the UE shall consider the timer value for Tsor-cm equal to zero.

The UE shall start the timer Tsor-cm.

While one or more Tsor-cm timers are running, upon receiving a new SOR-CMCI as described in annex C.3, the UE shall check if there is a matching criterion found for any ongoing PDU session or service in the new SOR-CMCI:

- if the UE has a configured "user controlled list of services exempted from release due to SOR" and a matching criterion is found for a service included in the "user controlled list of services exempted from release due to SOR", the UE shall set the Tsor-cm timer associated to the service to infinity;

- if a matching criterion is found and the value of Tsor-cm timer in the new SOR-CMCI indicates the value "infinity", then the Tsor-cm timer value for the associated PDU session or service shall be set to infinity;

- if a matching criterion is found and the value of Tsor-cm timer in the new SOR-CMCI is other than infinity and is smaller than the current value of the running Tsor-cm timer for the associated PDU session or service, then the Tsor-cm timer value for the associated PDU session or service shall be replaced with the value in the new SOR-CMCI without stopping and restarting the timer; or

- for all other cases, the running Tsor-cm timers for the associated PDU sessions or services are kept unchanged.

The timer Tsor-cm stops when the associated PDU session(s) is released or the associated service is stopped. If the value for timer Tsor-cm was selected as the highest among other values included in SOR-CMCI (see subclause C.4.1), then the timer Tsor-cm stops when the associated PDU session(s) for that timer value is release or the associated service is stopped. If the UE enters idle mode or 5GMM-CONNECTED mode with RRC inactive indication (see 3GPP TS 24.501 [64]), while timer Tsor-cm is running, then the UE stops the timer.

When the timer Tsor-cm stops or expires, if the UE has a list of available and allowable PLMNs in the area and based on this list or any other implementation specific means, the UE determines that there is a higher priority PLMN than the selected VPLMN, then the UE shall perform the deregistration procedure (see clause 4.2.2.3 of 3GPP TS 23.502 [63]) that releases all the established PDU sessions and the UE enters idle mode and attempts to obtain service on a higher priority PLMN as specified in subclause 4.4.3.3 by acting as if timer T that controls periodic attempts has expired.

NOTE: The list of available and allowable PLMNs in the area is implementation specific.

Editor's Note: aligning the text related to the "list of available and allowable PLMNs in the area" mentioned in the paragraph above is to be aligned to what will be agreed in C.2.

The UE which has an emergency PDU session, receives a request from the upper layers to establish an emergency PDU session or perform emergency services fallback, registers for emergency services, or is configured for high priority access in the selected PLMN is not required to enter idle mode even if the timer Tsor-cm stops or expires. The UE shall attempt to perform the PLMN selection after the emergency PDU session or the high priority service is released.