**3GPP TSG-CT WG1 Meeting #134-eC1-221449**

**E-Meeting, 17th – 25th February 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **23.122** | **CR** |  | **rev** |  | **Current version:** | 17.5.0 |  |
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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:*** | Handling of MT services in SOR-CMCI – 23.122 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | NTT DOCOMO | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eCPSOR\_CON | | | | |  | ***Date:*** | | | 2022-02-18 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | During CT1#133-e, a CR proposing to add “MO” for the IMS related signalling in SOR-CMCI was not agreed, since it will give impression that only MO SIP signalling fall under the rule and intermediate MT SIP signalling for IMS registration doesn't.  However, we think “MO” is required because of the following reasons:   * Neither in TS 24.229 nor TS 24.501, the definition for IMS registration related signalling exists. One can only find the definition for **MO**-IMS-registration related signalling. * “Wrong impression” can be avoided by adding a note clarifying whether “MO IMS registration related signalling” is ongoing or not is determined based on the indication from the upper layer (see TS 24.229 Annex U)   In addition, “MO” were removed from SMS and MMTEL voice/video in TS 23.122. However, current spec refers to TS 24.501 to determine whether SMS / MMTEL voice/video is ongoing or not. However, according to the current TS 24.501, whether SMS / MMTEL voice / video is ongoing or not is determined based on the indication from the upper layers (see TS 24.341, TS 24.173) and those indications from the upper layers are always for “MO”. Hence, reference to TS 24.501 may give wrong impression that only MO MMTEL / SMS fall under the rule. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clarified that IMS-registration-related signalling is MO-IMS-registration-related signalling defined in TS 24.229 Annex U.  Removed wrong reference. | | | | | | | | |
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| ***Consequences if not approved:*** | | Stage-1 requirements are not satisfied since the MT services may be interrupted due to SOR | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 1.1, C.4.1, C.4.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 24.501 CR 4068 | | |
| ***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 \* \* \* \*

## 1.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] Void.

[2] Void.

[3] Void.

[4] Void.

[5] Void.

[6] Void.

[7] Void

[8] Void.

[9] 3GPP TS 22.011: "Service accessibility".

[10] Void.

[11] Void.

[12] Void.

[13] Void.

[14] Void.

[15] Void.

[16] Void.

[17] Void.

[18] Void.

[19] Void.

[20] Void.

[21] Void.

[22] Void.

[22A] 3GPP TS 23.003: "Numbering, addressing and identification".

[23] 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification, Core Network Protocols - Stage 3".

[23A] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[24] 3GPP TS 45.002: "Multiplexing and multiple access on the radio path".

[25] 3GPP TS 45.008: "Radio subsystem link control".

[26] Void.

[27] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[27A] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

[28] Void.

[29] Void.

[30] Void.

[31] Void.

[32] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[33] 3GPP TS 25.331: "RRC Protocol Specification".

[34] 3GPP TS 44.018:"Mobile radio interface layer 3 specification, Radio Resource Control Protocol".

[35] 3GPP TS 43.022: "Functions related to Mobile Station (MS) in idle mode and group receive mode".

[35A] 3GPP TS 43.318: "Generic Access Network (GAN); Stage 2".

[35B] 3GPP TS 44.318: "Generic Access Network (GAN); Mobile GAN interface layer 3 specification; Stage 3".

[36] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[37] Void.

[38] 3GPP TS 21.111: "USIM and IC card requirements".

[39] 3GPP TS 44.060: "General Packet Radio Service (GPRS);Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[40] 3GPP TS 31.102: "Characteristics of the USIM Application".

[41] 3GPP TS 31.111: "Universal Subscriber Identity Module (USIM), Application Toolkit (USAT)".

[42] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RRC); Protocol specification".

[43] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) procedures in idle mode".

[44] 3GPP2 C.S0016-D v1.0: "Over-the-Air Service Provisioning of Mobile Stations in Spread Spectrum Standards".

[45] 3GPP2 C.S0011-C v2.0: "Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations".

[46] 3GPP2 C.S0033-A v2.0: "Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal".

[47] 3GPP TS 24.285: "Allowed Closed Subscriber Group (CSG) List Management Object (MO)".

[48] Void.

[49] 3GPP TS 22.220: "Service requirements for Home Node B (HNB) and Home eNode B (HeNB)".

[50] 3GPP TS 24.368: "Non-Access Stratum (NAS) configuration Management Object (MO)".

[51] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".

[52] 3GPP TS 24.333: "Proximity-services (ProSe) Management Objects (MO)".

[53] 3GPP TS 24.105: "Application specific Congestion control for Data Communication (ACDC) Management Object (MO)".

[54] 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".

[55] 3GPP TS 43.064: "Overall description of the GPRS Radio Interface; Stage 2".

[56] 3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description".

[57] 3GPP TS 23.167: "IP Multimedia Subsystem (IMS) emergency sessions".

[58] 3GPP TS 23.401: "GPRS enhancements for E-UTRAN access".

[59] 3GPP TS 24.386: "User Equipment (UE) to V2X control function; protocol aspects; Stage 3".

[60] 3GPP TS 24.385: "V2X services Management Object (MO)".

[61] 3GPP TS 38.304: "New Generation Radio Access Network; User Equipment (UE) procedures in Idle mode".

[62] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[63] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[64] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

[65] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

[66] 3GPP TS 33.501: "Security architecture and procedures for 5G System".

[67] 3GPP TS 31.115: "Secured packet structure for (Universal) Subscriber Identity Module (U)SIM Toolkit applications".

[68] 3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and Functional Description".

[69] 3GPP TS 23.221: "Architectural requirements".

[70] 3GPP TS 23.273: "5G System (5GS) Location Services (LCS)".

[71] 3GPP TS 29.544: "5G System (5GS); Secured Packet Application Function (SP-AF) services; Stage 3".

[72] 3GPP TS 29.571: "5G System (5GS); Common Data Types for Service Based Interfaces; Stage 3".

[73] ETSI TS 102 225: "Smart Cards; Secured packet structure for UICC based applications".

[74] 3GPP TS 22.261: "Service requirements for the 5G system; Stage 1".

[75] 3GPP TS 24.587: "Vehicle-to-Everything (V2X) services in 5G System (5GS); Stage 3".

[76] ITU-T Recommendation E.212: "The international identification plan for public networks and subscriptions".

[77] 3GPP TS 24.526: "UE policies for 5G System (5GS); Stage 3".

[78] 3GPP TS 29.503: "5G System; Unified Data Management Services; Stage 3".

[79] 3GPP TS 24.588: "Vehicle-to-Everything (V2X) services in 5G System (5GS); User Equipment (UE) policies; Stage 3".

[80] 3GPP TS 24.554: " Proximity-services (ProSe) in 5G System (5GS) protocol aspects; Stage 3".

[81] 3GPP TS 24.555: "Proximity-services (ProSe) in 5G System (5GS); User Equipment (UE) policies; Stage 3".

[XX] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

\* \* \* Next Change \* \* \* \*

### C.4.1 General

The HPLMN or subscribed SNPN, based on operator policy, may provide the UE with SOR-CMCI to control the timing when the UE enters idle mode and performs higher priority PLMN/access technology or SNPN selection. This is achieved by the HPLMN indicating to the UE the criteria for releasing specific PDU session(s) or services and entering idle mode.

NOTE 1: The released PDU sessions may be re-established by the application once the UE successfully registers on a higher priority PLMN or SNPN. User interaction is required for some applications.

The HPLMN or subscribed SNPN may configure the SOR-CMCI in the UE, and may also provide the SOR-CMCI to the UE over N1 NAS signalling. The SOR-CMCI received over N1 NAS signalling takes precedence over the SOR-CMCI stored in the non-volatile memory of the ME or stored in the USIM.

NOTE 2: The SOR-CMCI received over N1 NAS signalling in the SOR information is either the SOR-CMCI in the USAT REFRESH with command qualifier of type "Steering of Roaming" (see 3GPP TS 31.111 [41]) which is received in a secured packet, or the SOR-CMCI received in plain text.

If the UE receives SOR information containing the list of preferred PLMN/access technology combinations or SOR-SNPN-SI without SOR-CMCI, or the ME receives USAT REFRESH with command qualifier (see 3GPP TS 31.111 [41]) of type "Steering of Roaming" without SOR-CMCI, or the security check of the received steering of roaming information is not successful as described in clause C.2, clause C.3 and clause C.4.3, then:

1) if the UE has SOR-CMCI stored in the non-volatile memory of the ME, the UE shall use the SOR-CMCI stored in the non-volatile memory of the ME; and

2) the UE receives the steering of roaming information containing the SOR-CMCI over N1 NAS signalling and the UE receives the "Store SOR-CMCI in ME" indicator set to "Store SOR-CMCI in ME";

The UE shall delete the stored SOR-CMCI, if any, in the non-volatile memory of the ME and store the received SOR-CMCI in the non-volatile memory of the ME when:

1) the ME receives SOR-CMCI in the USAT REFRESH with command qualifier (see 3GPP TS 31.111 [41]) of type "Steering of Roaming"; or

2) the UE receives the steering of roaming information containing the SOR-CMCI over N1 NAS signalling and the UE receives the "Store SOR-CMCI in ME" indicator set to "Store SOR-CMCI in ME";

The SOR-CMCI shall be stored in the non-volatile memory of the ME together with the SUPI from the USIM. The ME shall not delete the SOR-CMCI when the UE is switched off. The ME shall delete the SOR-CMCI when a new USIM is inserted.

SOR-CMCI consists of SOR-CMCI rules. Each SOR-CMCI rule consists of the following parameters:

i) a criterion of one of the following types:

- PDU session attribute type criterion;

- service type criterion;

- SOR security check criterion; or

- match all type criterion; and

ii) a value for Tsor-cm timer associated with each criterion presented in i) indicating the time the UE shall wait before releasing the PDU sessions or the services and entering idle mode.

SOR-CMCI contains zero, one or more SOR-CMCI rules with PDU session attribute type criterion, zero, one or more SOR-CMCI rules with service type criterion, and zero or one SOR-CMCI rule with match all type criterion.

PDU session attribute type criterion consists of one of the following:

a) DNN of the PDU session;

b) S-NSSAI STT of the PDU session; or

c) S-NSSAI SST and SD of the PDU session.

Service type criterion consists of one of the following:

a) MO IMS registration related signalling;

b) MMTEL voice call;

c) MMTEL video call; or

d) SMS over NAS or SMSoIP.

SOR security check criterion consists of:

a) SOR security check not successful.

Match all type criterion consists of:

a) match all.

When the SOR-CMCI received by the UE over N1 NAS signalling contains no SOR-CMCI rules, the UE shall stop all running Tsor-cm timers, if any, and act as if no SOR-CMCI is configured. Additionally:

- if the SOR-CMCI is received in plain text and it also contains the "Store SOR-CMCI in ME" indicator, the UE shall delete the stored SOR-CMCI in the non-volatile memory of the ME, if any; and

- if the SOR-CMCI is received in a secured packet, and the USIM provides the ME with the SOR-CMCI in the USAT REFRESH with command qualifier of type "Steering of Roaming" (see 3GPP TS 31.111 [41]), then the UE shall delete the stored SOR-CMCI in the non-volatile memory of the ME, if any.

The HPLMN may update the SOR-CMCI in the USIM such that it contains no SOR-CMCI rules, in which case the UE behaviour described in clause C.4.2 applies. Also the HPLMN may make the SOR-CMCI file in the USIM unavailable (see 3GPP TS 31.102 [40]).

If there are more than one criterion applicable for a PDU session (e.g., a criterion for the PDU session and another one for the service) then the Tsor-cm timer with the highest value shall apply.

If there are more than one criterion applicable to different ongoing PDU sessions or services leading to multiple applicable Tsor-cm timers, then all the applicable Tsor-cm timers shall be started. Further handling of such cases is described in clause C.4.2.

If the value for Tsor-cm timer equals "infinity" then the UE shall wait until the PDU session is released or the service is stopped.

The Tsor-cm timer is applicable only if the UE is in automatic network selection mode.

Upon switching to the manual network selection mode, the UE shall stop any Tsor-cm timer, if running. In this case, the UE is not required to enter idle mode and perform the de-registration procedure.

The UE shall consider the following services as exempted from being forced to release the related established PDU session, if any, enter idle mode and perform high priority PLMN/access technology or SNPN selection. These services are known to the UE by default and the UE shall not follow the SOR-CMCI criteria even if configured to interrupt such services:

i) emergency services.

The UE configured with high priority access in the selected PLMN or SNPN shall consider all services and all related established PDU sessions, if any, to be exempted from being forced to be released to enter idle mode and perform high priority PLMN/access technology or SNPN selection.

\* \* \* Next 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) or the services as follows:

- If the UE encounters SOR security check not successful on the received steering of roaming information, and a matching criterion "SOR security check not successful" is included in the SOR-CMCI stored in the non-volatile memory of the ME, then the UE shall:

- if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

- stop all other running Tsor-cm timers, if any; and

- not start any new Tsor-cm timer while Tsor-cm timer associated with "SOR security check not successful" criterion is running;

- If one or more SOR-CMCI rules are 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, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

b) S-NSSAI SST of the PDU session:

the UE shall check whether it has a PDU session with a S-NSSAI SST matching the S-NSSAI SST included in SOR-CMCI, and if any, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

b1) S-NSSAI SST and SD of the PDU session:

the UE shall check whether it has a PDU session with a S-NSSAI SST and SD matching the S-NSSAI SST and SD included in SOR-CMCI, and if any, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

c) MO IMS registration related signalling:

the UE shall check whether MO IMS registration related signalling is ongoing as specified in 3GPP TS 24.501 [64], and if it is ongoing, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

NOTE 1: Whether MO IMS registration related signalling is ongoing is determined based on the indication from the upper layers as specified in TS 24.229 [XX].

d) MMTEL voice call:

the UE shall check whether MMTEL voice call is ongoing, and if it is ongoing, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

e) MMTEL video call:

the UE shall check whether MMTEL video call is ongoing, and if it is ongoing, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI;

f) SMS over NAS or SMSoIP:

the UE shall check whether SMS over NAS or SMSoIP services is ongoing, and if it is ongoing, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI; or

g) match all:

the UE shall check whether there are any PDU sessions or services for which there is no matching criterion in a) to f) above. If such PDU session or service exists, then for each of these PDU sessions or services, the UE shall, if the timer value is not zero, start an associated Tsor-cm timer with the value included in the SOR-CMCI.

If the SOR-CMCI is available, and:

- the SOR-CMCI used is in the USIM, contains no SOR-CMCI rule;

- there are one or more SOR-CMCI rules but there is no criterion matched with any ongoing PDU session or service; or

- there are one or more SOR-CMCI rules and there is one or more criteria matched with an ongoing PDU session or service, but the highest Tsor-cm timer value associated with the matched criteria is equal to zero;

then there is no Tsor-cm timer started for any PDU session or service.

While one or more Tsor-cm timers are running, the UE shall check the newly established PDU session or service for a matching criterion in the SOR-CMCI:

- If a matching criterion is found and the applicable Tsor-cm timer indicated the value "infinity" then the UE shall start the Tsor-cm timer associated to the newly established PDU session or service with the value set to infinity; or

- For all other cases, if a matching criterion is found and the timer value is not zero then the UE shall start the Tsor-cm timer associated to the newly established PDU session or service with the value included in the SOR-CMCI, with the exception that if the value of the Tsor-cm timer included in the SOR-CMCI exceeds the highest value among the current values of all running Tsor-cm timers, then the value of the Tsor-cm timer for the newly established PDU session or service shall be set to the highest value among the current values of all running Tsor-cm timers.

NOTE 1: For newly established PDU session or service as described above, the timer is set irrespective of whether other ongoing PDU sessions or services that match the same criteria exist and for which corresponding Tsor-cm timers are running.

NOTE 2: NAS 5GMM layer will receive an explicit indication from the upper layers that a service is started or stopped. When a service is started, it is handled as a new service in the procedures described in this clause.

NOTE 3: While one or more Tsor-cm timers are running, the UE can trigger any 5GSM procedure or start new services.

While one or more Tsor-cm timers are running, upon receiving a new SOR-CMCI as described in annex C.4.3, the UE shall check if there is a matching criterion found for any ongoing PDU session or service in the new SOR-CMCI:

- if a matching criterion is found and the value of Tsor-cm timer in the new SOR-CMCI indicates the value "infinity", then:

a) if the Tsor-cm timer associated to the PDU session or service is not running, then the UE shall start the Tsor-cm timer associated to the PDU session or service with the value set to infinity; or

b) if the Tsor-cm timer associated to the PDU session or service is already running, then the UE shall set the value of the Tsor-cm timer associated to the PDU session or service to infinity without stopping and restarting the timer;

- 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 Tsor-cm timer shall be stopped when the associated PDU session is released or the associated service is stopped.

If the UE, while one or more Tsor-cm timers are running:

a) enters idle mode not due to lower layer failure (see 3GPP TS 24.501 [64]);

b) is not able to successfully recover the N1 NAS signalling connection (see 3GPP TS 24.501 [64]); or

c) enters 5GMM-CONNECTED mode with RRC inactive indication (see 3GPP TS 24.501 [64]);

then the UE shall stop the timer(s). In these cases, if:

a) the UE has a list of available and allowable PLMNs or SNPNs in the area and based on this list or any other implementation specific means, the UE determines that there is a higher priority PLMN or SNPN than the selected VPLMN or non-subscribed SNPN; or

b) the UE does not have a list of available and allowable PLMNs or SNPNs in the area and is unable to determine whether there is a higher priority PLMN or SNPN than the selected VPLMN or non-subscribed SNPN using any other implementation specific means;

then the UE shall attempt to obtain service on a higher priority PLMN or SNPN as specified in clause 4.4.3.3 by acting as if timer T that controls periodic attempts has expired or as specified in clause 4.9.3.

NOTE 4: When the UE enters idle mode due to lower layer failure while one or more Tsor-cm timers are running, then the UE does not stop Tsor-cm timer(s) as recovery of NAS signalling connection is possible (see 3GPP TS 24.501 [64]).

When the UE determines that no Tsor-cm timer is started for any PDU session or service, the last running Tsor-cm timer is stopped due to release of the associated PDU sessions or stop of the associated services, or the last running Tsor-cm timer expires, if:

i) the UE has a list of available and allowable PLMNs or SNPNs in the area and based on this list or any other implementation specific means, the UE determines that there is a higher priority PLMN or SNPN than the selected VPLMN or non-subscribed SNPN; or

ii) the UE does not have a list of available and allowable PLMNs or SNPNs in the area and is unable to determine whether there is a higher priority PLMN or SNPN than the selected VPLMN or non-subscribed SNPNusing any other implementation specific means;

then if the UE is in 5GMM-CONNECTED mode, 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 services, if any, and once the UE enters idle mode it shall attempt to obtain service on a higher priority PLMN or SNPN as specified in clause 4.4.3.3 by acting as if timer T that controls periodic attempts has expired or as specified in clause 4.9.3.

NOTE 5: The list of available and allowable PLMNs or SNPNs in the area is implementation specific.

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 or SNPN is not required to enter idle mode if the last running Tsor-cm timer for any PDU session or service stops or expires. In this case, the UE shall attempt to perform the PLMN or SNPN selection after the emergency PDU session or the high priority service is released and after the UE enters idle mode or 5GMM-CONNECTED mode with RRC inactive indication (see 3GPP TS 24.501 [64]).

\* \* \* End of Changes \* \* \* \*