**3GPP TSG-CT WG1 Meeting #127-eC1-20xxxx**

**Electronic meeting, 13-20 November 2020 *was* C1-207453**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.193** | **CR** | **0024** | **rev** | **1** | **Current version:** | **16.1.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Clarification on handling of MA PDU session for LADN DNN | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ATSSS | | | | |  | ***Date:*** | | | 2020-11-16 |
|  |  | | | |  | |  | | |  |
| ***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 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The UE may request to MA PDU session establishment for a LADN DNN.  If the UE has established the MA PDU session for a LADN DNN over both 3GPP access and non-3GPP access and then the UE moves out of the LADN service area, the SMF shall release the user-plane resources of the MA PDU session over non-3GPP access as well.  Based above, clarification of the additional handling for MA PDU session for LADN DNN comparing with SA PDU session for LADN DNN is needed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | If the established MA PDU session is for the LADN DNN and the SMF receives UE presence in LADN service area from the AMF indicating that the UE is out of the LADN service area, the SMF shall  a) send the PDU SESSION RELEASE COMMAND message with the Access type IE set to "3GPP access" and the 5GSM cause value #46 "out of LADN service area" in the 5GSM cause IE as specified in clause 6.3.3.2 and clause 6.3.3.3 of 3GPP TS 24.501 [6] if the MA PDU session is established over 3GPP access only; or  b) send the PDU SESSION RELEASE COMMAND message without the Access type IE and the 5GSM cause value #46 "out of LADN service area" in the 5GSM cause IE as specified in clause 6.3.3.2 and clause 6.3.3.3 of 3GPP TS 24.501 [6] if the MA PDU session is established over both 3GPP access and non-3GPP access or the MA PDU session is established over 3GPP access only; or  c) release the user-plane resources for the MA PDU session for LADN and maintain the MA PDU session for LADN.  In addition, the description in CR is based on the conclusion of CR# TS 24.501 which clarifies release of the whole MA PDU session, so it is indicated as a linked CR. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is not clear whether and how to handle th the leg of MA PDU session over non-3GPP access when the UE moves out the LADN service area. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 24.501 CR 2934 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* 1st Change \* \* \* \*

### 5.2.3 Release of user-plane resources

In order to release the MA PDU session:

a) the SMF shall initiate the network-requested PDU session release procedure as specified in clause 6.3.3.2 and clause 6.3.3.3 of 3GPP TS 24.501 [6] over 3GPP access or non-3GPP access, by sending the PDU SESSION RELEASE COMMAND message to the UE. Over which access to initiate this network-requested PDU session release procedure is SMF implementation specific; or

b) the UE shall initiate the UE-requested PDU session release procedure as specified in clause 6.4.3.2 of 3GPP TS 24.501 [6] over 3GPP access or non-3GPP access by sending the PDU SESSION RELEASE REQUEST message to the network. Over which access to initiate this UE-requested PDU session release procedure is UE implementation specific.

If the established MA PDU session is for the LADN DNN and the SMF receives UE presence in LADN service area from the AMF indicating that the UE is out of the LADN service area, the SMF shall:

a) send the PDU SESSION RELEASE COMMAND message with the Access type IE set to "3GPP access" and the 5GSM cause value #46 "out of LADN service area" in the 5GSM cause IE as specified in clause 6.3.3.2 and clause 6.3.3.3 of 3GPP TS 24.501 [6] if the MA PDU session is established over 3GPP access only;

b) send the PDU SESSION RELEASE COMMAND message without the Access type IE and the 5GSM cause value #46 "out of LADN service area" in the 5GSM cause IE as specified in clause 6.3.3.2 and clause 6.3.3.3 of 3GPP TS 24.501 [6] if the MA PDU session is established over both 3GPP access and non-3GPP access or the MA PDU session is established over 3GPP access only; or

c) release the user-plane resources of any access for the MA PDU session for LADN and maintain the MA PDU session for LADN;

according to operator's policy.

When the UE receives the PDU SESSION RELEASE COMMAND message, the UE shall behave as specified in 3GPP TS 24.501 [6] clause 6.3.3.3.

In order to release the MA PDU session's user-plane resources on either 3GPP access or non-3GPP access, the SMF shall initiate the network-requested PDU session release procedure as specified in clause 6.3.3.2 of 3GPP TS 24.501 [6] over 3GPP access or non-3GPP access, by sending the PDU SESSION RELEASE COMMAND message with the Access type IE indicating of which access the user-plane resources are released to the UE, e.g. when the AMF indicates to the SMF that the UE is deregistered over an access or when S-NSSAI of the MA PDU session is not in the Allowed NSSAI over an access. Over which access to initiate this network-requested PDU session release procedure is SMF implementation specific. When the UE receives the PDU SESSION RELEASE COMMAND message, the UE shall behave as specified in 3GPP TS 24.501 [6] clause 6.3.3.3, and consider that the user plane resources of the MA PDU session have been released on the access indicated in the Access type IE.

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