**3GPP TSG-CT WG1 Meeting #126-eC1-205840**

**Electronic meeting, 15-23 October 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **24.501** | **CR** | **2628** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 | **x** |

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| ***Title:*** | Merge of two bullets with the same handling for different Request type IE | | | | | | | | | |
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| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GProtoc17 | | | | |  | ***Date:*** | | | 2020-9-30 |
|  |  | | | |  | |  | | |  |
| ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17)* | |
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| ***Reason for change:*** | | In TS 24.501 subsection 5.4.5.2.4, bullet a) and bullet b) provide duplicate information forthe handling when the Request type IE is set to "initial request" or "existing PDU session" and when the Request type IE is set to "MA PDU request". | | | | | | | | |
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| ***Summary of change:*** | | It proposes to remove the repetitive bullet b) and merge the bullet a) and bullet b) as one bullet. | | | | | | | | |
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| ***Consequences if not approved:*** | | The repetitive and redundant description remains in the spec and undemines the quality of the spec. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.5.2.4 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

##### 5.4.5.2.4 UE-initiated NAS transport of messages not accepted by the network

Upon reception of an UL NAS TRANSPORT message, if the Payload container type IE is set to "N1 SM information" and the UE is not configured for high priority access in selected PLMN, and:

a) if the Request type IE is set to "initial request" or "existing PDU session" or "MA PDU request";

1) DNN based congestion control is activated for the DNN included in the UL NAS TRANSPORT message, or DNN based congestion control is activated for the selected DNN in case of no DNN included in the UL NAS TRANSPORT message, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #22 "congestion" as specified in subclause 5.4.5.3.1 case f);

2) S-NSSAI and DNN based congestion control is activated for the S-NSSAI and DNN included in the UL NAS TRANSPORT message, or S-NSSAI and DNN based congestion control is activated for the S-NSSAI included in the UL NAS TRANSPORT message and the selected DNN in case of no DNN included in the UL NAS TRANSPORT message, or S-NSSAI and DNN based congestion control is activated for the selected S-NSSAI in case of no S-NSSAI included in the UL NAS TRANSPORT message and the DNN included in the UL NAS TRANSPORT message, or S-NSSAI and DNN based congestion control is activated for the selected S-NSSAI and the selected DNN in case of no S-NSSAI and no DNN included in the UL NAS TRANSPORT message, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #67 "insufficient resources for specific slice and DNN" as specified in subclause 5.4.5.3.1 case f);

3) S-NSSAI only based congestion control is activated for the S-NSSAI included in the UL NAS TRANSPORT message, or S-NSSAI based congestion control is activated for the selected S-NSSAI in case of no S-NSSAI included in the UL NAS TRANSPORT message, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #69 "insufficient resources for specific slice" as specified in subclause 5.4.5.3.1 case f);

b) void;

c) if the Request type IE is set to "modification request" and the PDU session is not an emergency PDU session;

1) DNN based congestion control is activated for the stored DNN, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #22 "congestion" as specified in subclause 5.4.5.3.1 case f);

2) S-NSSAI and DNN based congestion control is activated for the stored S-NSSAI and DNN, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #67 "insufficient resources for specific slice and DNN" as specified in subclause 5.4.5.3.1 case f);

3) S-NSSAI only based congestion control is activated for the stored S-NSSAI, e.g. configured by operation and maintenance, the AMF shall send back to the UE the 5GSM message which was not forwarded, a back-off timer value and 5GMM cause #69 "insufficient resources for specific slice" as specified in subclause 5.4.5.3.1 case f); or

d) the timer T3447 is running and the UE does not support service gap control:

1) the Request type IE:

i) is set to "initial request";

ii) is set to "existing PDU session"; or

iii) is set to "modification request" and the PDU session being modified is a non-emergency PDU session;

2) the current NAS signalling connection was not triggered by paging; and

3) mobile terminated signalling has not been sent or no user-plane resources have been established for any PDU session after the establishment of the current NAS signalling connection,

the AMF shall send back to the UE the message which was not forwarded, send the 5GMM cause #22 "Congestion", and may include a back-off timer set to the remaining time of the timer T3447 as specified in subclause 5.4.5.3.1 case f).

Upon reception of a UL NAS TRANSPORT message, if the Payload container type IE is set to "N1 SM information", the Request type IE is set to "initial request", "existing PDU session" or "MA PDU request", and the AMF determines that the PLMN's maximum number of PDU sessions has already been reached for the UE, the AMF shall send back to the UE the 5GSM message which was not forwarded and 5GMM cause #65 "maximum number of PDU sessions reached" as specified in subclause 5.4.5.3.1 case h).

Upon reception of a UL NAS TRANSPORT message, if the Payload container type IE is set to "N1 SM information", the Request type IE is set to "initial request", and

a) the UE is in NB-N1 mode;

b) the UE has indicated preference for user plane CIoT 5GS optimization;

c) the network accepted the use of user plane CIoT 5GS optimization; and

d) the AMF determines that there are user-plane resources established for a number of PDU sessions that is equal to the UE' s maximum number of supported user-plane resources (see 3GPP TS 23.501 [8]),

the AMF shall either:

a) send back to the UE the message which was not forwarded as specified in in subclause 5.4.5.3.1 case h1); or

b) proceed with the PDU session establishment and include the Control Plane CIoT 5GS Optimisation indication or Control Plane Only indicator to the SMF.

Upon reception of an UL NAS TRANSPORT message, if the Payload container type IE is set to "CIoT user data container", the UE is not configured for high priority access in selected PLMN, and:

a) the timer T3447 is running and the UE does not support service gap control;

b) the current NAS signalling connection was not triggered by paging; and

c) mobile terminated signalling has not been sent or no user-plane resources have been established for any PDU session after the establishment of the current NAS signalling connection;

the AMF shall send back to the UE the CIoT user data which was not forwarded, send the 5GMM cause #22 "Congestion", and include a back-off timer set to the remaining time of the timer T3447 as specified in subclause 5.4.5.3.1 case l2).

Upon reception of a UL NAS TRANSPORT message, if the Payload container type IE is set to "N1 SM information", the Request type IE is set to "existing PDU session", and

a) the UE is in NB-N1 mode;

b) the UE has indicated preference for user plane CIoT 5GS optimization;

c) the network accepted the use of user plane CIoT 5GS optimization; and

d) the AMF determines that there are user-plane resources established for a number of PDU sessions that equals to the UE's maximum number of supported user-plane resources (see 3GPP TS 23.501 [8]),

the AMF shall send back to the UE the message which was not forwarded as specified in in subclause 5.4.5.3.1 case h1).

Upon reception of an UL NAS TRANSPORT message, if the Payload container type IE is set to "N1 SM information", the Request type IE is set to "initial request", the S-NSSAI IE includes an S-NSSAI for which the AMF is performing NSSAA, and the AMF determines to not forward the 5GSM message to the SMF based on local policy, the AMF shall send back to the UE the 5GSM message which was not forwarded as specified in subclause 5.4.5.3.1 case h2).

Upon reception of an UL NAS TRANSPORT message, if the Payload container type IE is set to "SMS" or "LTE Positioning Protocol (LPP) message container", the UE is not configured for high priority access in selected PLMN, and:

a) the timer T3447 is running and the UE does not support service gap control;

b) the current NAS signalling connection was not triggered by paging; and

c) mobile terminated signalling has not been sent or no user-plane resources have been established for any PDU session after the establishment of the current NAS signalling connection;

the AMF shall abort the procedure.

NOTE: In this state the NAS signalling connection can be released by the network.

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