3GPP TSG SA WG5 Meeting 139-e TDoc S5-215343rev1

electronic meeting, online, 11 - 20 October 2021

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Correct handover execution failure measurement | | | | | | | | | |
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| ***Source to WG:*** | S5 | | | | | | | | | |
| ***Source to TSG:*** | Ericsson | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_SLICE\_ePA | | | | |  | ***Date:*** | | | 2021-10-01 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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)* | |
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| ***Reason for change:*** | | The measurement is incorrectly defined. | | | | | | | | |
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| ***Summary of change:*** | | The measurement is redefined to convey its purpose. | | | | | | | | |
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| ***Consequences if not approved:*** | | Impossible to implement the measurement leading to interoperability problems. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.1.6.1.9 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **First change** |

###### 5.1.1.6.1.9 Number of failed handover executions

a) This inter gNB handover measurement provides the number of failed handover executions for a source gNB.

b) CC.

c) This counter is incremented when handover execution failures occur. It is assumed that the UE context is available in the source gNB. The following events are counted:

1) On reception of NGAP UE CONTEXT RELEASE COMMAND [11] from AMF indicating an unsuccessful inter gNB handover;

2) On reception of *RrcReestablishmentRequest* [20] where the reestablishmentCause is handoverFailure, from the UE in the source gNB, where the reestablishment occurred in the source gNB;

3) On expiry of a Handover Execution supervision timer in the source gNB;

4) On reception of XnAP RETRIEVE UE CONTEXT REQUEST [13] in the source gNB, when the reestablishment occurred in another gNB.

The failure causes for UE CONTEXT RELEASE COMMAND are listed in [11] clause 9.3.1.2. An event increments the relevant subcounter by 1. For MM.HoExeInterFail.UE\_CONTEXT\_RELEASE\_COMMAND, an event increments the relevant subcounter per failure cause by 1.

As one handover failure might cause more than one of the above events, duplicates need to be filtered out.

d) Each subcounter is an integer value.

e) MM.HoExeInterFail.UeCtxtRelCmd.*cause*;  
MM.HoExeInterFail.RrcReestabReq;MM.HoExeInterFail.HoExeSupTimer;MM.HoExeInterFail. RetrUeCtxtReq;

Where *cause* identifies the failure cause of the UE CONTEXT RELEASE COMMAND message.

f) NRCellCU;  
NRCellRelation.

g) Valid for packet switched traffic.

h) 5GS.

i) One usage of this performance measurement is for performance assurance.

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| **End of changes** |