**3GPP TSG- Meeting # *S5-222185rev1***

**04 - 12 April 2022, E-meeting**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **-** | **rev** | **1** | **Current version:** | **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 |  | Radio Access Network | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | [Draft CR] Enhance UE Context Release measurements for MDA | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Intel | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMDAS | | | | |  | ***Date:*** | | | 24 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As specified in draft TS 28.104, the measurements in the table below are needed to support coverage problem analysis for MDA.   |  | | --- | | Number of UE Context Release Request per SSB (gNB-DU initiated) | | Number of UE Context Release Requests per SSB (gNB-CU initiated) |   This CR is to define these measurements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Added measured object Beam to masurements of Number of UE Context Release Request per SSB (gNB-DU initiated) and Number of UE Context Release Requests per SSB (gNB-CU initiated). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The number of UE Context Release Request per SSB (gNB-DU initiated) and number of UE Context Release Requests per SSB (gNB-CU initiated) cannot be monitored. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1.3.5.1, 5.1.3.5.2, A.5, A.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

|  |
| --- |
| **1st modified section** |

#### 5.1.3.5 UE Context Release

##### 5.1.3.5.1 UE Context Release Request (gNB-DU initiated)

a) This measurement provides the number of UE CONTEXT Release initiated by gNB-DU for each release cause.

b) SI

c) Transmission of an UE CONTEXT RELEASE REQUEST message initiated by gNB-DU. Each release request is to be added to the relevant cause measurement. This measurement is also counted to the SSB beam which the UE connects to when the UE CONTEXT RELEASE REQUEST message is transmitted. The possible causes are defined in 38.473 [6]. The sum of all supported per causes measurements shall equal the total number of UE CONTEXT Release initiated by gNB-DU. In case only a subset of per cause measurements is supported, a sum subcounter will be provided first.

d) Each measurement is an integer value. The number of measurements is equal to the number of causes plus a possible sum value identified by the .sum suffix.

e) The measurement name has the form UECNTX.RelReq.*Cause*   
 where *Cause* identifies the release cause.

f) NRCellDU  
Beam

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurements is to support MDA.

##### 5.1.3.5.2 Number of UE Context Release Requests (gNB-CU initiated)

a) This measurement provides the number of UE CONTEXT RELEASE initiated by gNB-CU for each release cause.

b) SI

c) Transmission of an UE CONTEXT RELEASE COMMAND message initiated by gNB-CU. Each release request is to be added to the relevant cause measurement. This measurement is also counted to the SSB beam which the UE connected to when the UE CONTEXT RELEASE COMMAND message is transmitted. The possible causes are defined in 38.473 [6]. The sum of all supported per causes measurements shall equal the total number of UE CONTEXT Release initiated by gNB-CU. In case only a subset of per cause measurements is supported, a sum subcounter will be provided first.

d) Each measurement is an integer value. The number of measurements is equal to the number of causes plus a possible sum value identified by the .sum suffix.

e) The measurement name has the form UECNTX.RelCmd.Cause where Cause identifies the release cause.

f) NRCellCU  
Beam

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurements is to support MDA.

|  |
| --- |
| **Next modified section** |

# A.5 Monitoring of UE Context Release Request (gNB-DU initiated)

In order to monitor the stability of the network and detect the service/connection interruption caused by NGRAN, monitoring the UE Context Release Request initiated by gNB-DU is an effective method. Collecting the measurements for these events and analysing the releasing cause conveyed in the message, operators could detect the stability of NG-RAN, and could decide a specific means to improve the NG-RAN performance. Moreover, measuring the UE Context Releases on the SSB beam from where the UE CONTEXT is released is useful for analyzing the coverage problem.

|  |
| --- |
| **Next modified section** |

# A.8 Monitoring of UE Context Release (gNB-CU initiated)

In order to monitor the stability of the network and detect the service/connection interruption caused by NG-RAN, monitoring the UE Context Release Command initiated by gNB-CU is an effective method. Collecting the measurements for these events and analysing the releasing cause conveyed in the message, operators could detect the stability of NG-RAN, and could decide a specific means to improve the NG-RAN performance. Moreover, measuring the UE Context Releases on the SSB beam from where the UE CONTEXT is released is useful for analyzing the coverage problem.

|  |
| --- |
| **End of modified sections** |