**3GPP TSG- Meeting #157 *S5-246071***

**Hyderabad, India, 14 – 18 October 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **0210** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HELP***](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:*** | New KPIs for Connected Mode RRM Relaxation Usage rate | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple, Deutsche Telekom | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | | 2024-10-16 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There is currently no KPI defined in TS 28.554 quantifying the Connected Mode RRM Relaxation Usage rate. In this CR, it is proposed to define a new KPI to capture it. One usage of this new KPI is to assess how often do UEs that fulfil conditions to enter connected mode rrm relaxation state stay in such a state or exit it. | | | | | | | | |
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| ***Summary of change:*** | | Adding a new KPI quantifying the Connected Mode RRM Relaxation Usage rate. | | | | | | | | |
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| ***Consequences if not approved:*** | | Without this newly defined KPI, The Connected Mode RRM Relaxation Usage rate, cannot be derived. | | | | | | | | |
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| ***Clauses affected:*** | | 6.4.x (new), A.y (new) | | | | | | | | |
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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:*** | | S5-246071 is a revision of S5-245696 | | | | | | | | |

***Start of First change***

### 6.4.x Connected Mode RRM Relaxation Usage rate

a) ConnectedModeMeasRelaxationUsage.

b) This KPI describes the ratio of the number of UE side connected mode RRM relaxation sessions (such a session starts when UE sends a UAI with MeasRelaxationFulfilment-r17 IE with value True till it sends another UAI with MeasRelaxationFulfilment-r17 IE with value False) that conclude (these sessions conclude when the UE sends UAI with MeasRelaxationFulfilment-r17 IE with value False) to the number of all such sessions. This KPI is used to evaluate the utilization of this feature in the field. It is a percentage. The KPI type is RATIO.

c)

d) NRCellCU

***Start of next change***

# A.26 Use case for reliability KPI in RAN with time constraint over Downlink and Uplink air-interface

Reliability KPI based on time constraint in DL and UL over Uu interface in a 5G network as defined in clauses 6.8.1.8 and 6.8.1.7 is important to be calculated specially for delay critical URLLC services. It would help in troubleshooting any delay related issue in RAN side for the ongoing URLLC service. It enables operators to track the performance of a URLLC service and the delay values of each packet can be used for analysing and troubleshooting. This may include enabling/disabling or configuring/de-configuring the URLLC service-impacting RAN features or may involve actions like re-configuring time constraint/delay threshold values if not set correctly already.

# A.y Use case for the Connected Mode RRM Relaxation Usage rate KPI

The Connected Mode RRM Relaxation Usage rate KPI is useful to assess how often do UEs that fulfil conditions to enter connected mode rrm relaxation state stay in such a state or exit it.

***End of change***