**3GPP TSG-SA5 Meeting #157 *S5-246070***

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

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **28.552** | **CR** | **0613** | **rev** | **1** | **Current version:** | **19.1.0** |  |
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| *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 performance measurements for UE assistance information with RRM Measurement Relaxation feature usage |
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| ***Source to WG:*** | Apple, Deutsche Telekom |
| ***Source to TSG:*** | SA5 |
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| ***Work item code:*** | PM\_KPI\_5G\_Ph4 |  | ***Date:*** | 2024-10-16 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *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 canbe 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)* |
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| ***Reason for change:*** | There is currently no performance measure defined in TS 28.552 quantifying the number of Successfully applied RRCReconfiguration for configuring UE assistance information with RRM Measurement Relaxation Reporting and the number of received UE assistance information with Measurement Relaxation Fulfilment. In this CR, it is proposed to define new measurements that capture both. One usage of these performance measurements is to help characterize the UAI with RRM Measurement relaxation reporting enablement as well as UAI with Measurement Relaxation fulfilment utilization. |
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| ***Summary of change:*** | Adding new performance measures capturing the number of Successfully applied RRCReconfiguration for configuring UE assistance information with RRM Measurement Relaxation Reporting and the number of received UE assistance information with Measurement Relaxation Fulfilment. |
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| ***Consequences if not approved:*** | Without these performance measurements, it is impossible to characterize the UAI with RRM Measurement relaxation reporting enablement as well as UAI with Measurement Relaxation fulfilment utilization. |
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| ***Clauses affected:*** | 5.1.1.x (new), 5.1.1.y (new), A.z (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 ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** | S5-246070 is a revision of S5-245692 |

***Start of First change***

#### 5.1.1.x Number of Successfully applied RRCReconfiguration for configuring UE assistance information with RRM Measurement Relaxation Reporting

a) This measurement provides the number of RRCReconfiguration carrying the UAI configuration with rrm-MeasRelaxationReportingConfig-r17 (see clause 5.3.5.9 of TS 38.331 [20]) for an RRC connection established within the existing NRCellCU.

b) CC

c) On reception of RRCReconfigurationComplete message from the UE, following a transmission of RRCReconfiguration message to that same UE, If the transmitted RRCReconfiguration message to the UE carries OtherConfig-v1700, and if this latter container contains setup of the rrm-MeasRelaxationReportingConfig-r17 (see clause 5.3.5.9 of TS 38.331 [20]), the counter will be incremented.

d) Each measurement is an integer value.

e) The measurement name has the form RRC.OtherConfig.UAI.RrmMeasRelaxationReporting

f) NRCellCU

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurement is to characterize the UAI with RRM Measurement relaxation reporting enablement.

***Start of next change***

#### 5.1.1.y Number of received UE assistance information with Measurement Relaxation Fulfilment

a) This measurement provides the number of *UEAssistanceInformation* received by the NWcarrying the *rrm-MeasRelaxationFulfilment-r17* IE, either set to True or False (see clause 5.7.4.2 of TS 38.331 [20]) for an RRC connection established within the existing NRCellCU.

b) CC

c) Upon reception of *UEAssistanceInformation* message by the network, if the message contains the *rrm-MeasRelaxationFulfilment-r17* IE with value True, a first counter will be incremented, and if the *rrm-MeasRelaxationFulfilment-r17* IE value is False then a second counter will be incremented,

d) Each counter is an integer value.

e) The measurements names have the form RRC.UAI. *MeasRelaxationFulfilment.True* andRRC.UAI. *MeasRelaxationFulfilment.False* respectively for the True and false counters defined in c)

f) NRCellCU

g) Valid for packet switched traffic

h) 5GS

i) One usage of this performance measurement is to characterize the UAI with Measurement Relaxation fulfilment utilization.

***Start of next change***

# A.122 Use case for UE assistance with release preference information related measurements

The above newly proposed performance measurements in clauses 5.1.1.42 (RRC.OtherConfig.UAI.releasePreferenceConfig) and 5.1.1.43 (RRC.UAI.releasePreference.) are needed for the assessment of the usefulness of the 3GPP defined connection mode power saving mechanisms (UE Assistance with release preference specifically). If implemented, these will measure the impact of the applying these mechanisms on the UE’s daily battery consumption.

# A.z Use case for the number of successfully applied RRCReconfiguration for configuring UE assistance information with RRM Measurement relaxation reporting and the number of received UE assistance information with measurement relaxation fulfilment

The number of successfully applied RRCReconfiguration for configuring UE assistance information with RRM Measurement relaxation reporting and the number of received UE assistance information with measurement relaxation fulfilment help characterize the UAI with RRM Measurement relaxation reporting feature enablement and utilization.

***End of change***