**3GPP TSG-RAN WG2 Meeting # *XXXX***

**Chicago, USA, 13th – 17th, Nov. 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **4438** | **rev** | **1** | **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 | **X** | Radio Access Network | **X** | Core Network |  |

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|  |
| ***Title:***  | Introduction of Rel-18 QoE UE capabilites in TS 38.331 |
|  |  |
| ***Source to WG:*** | CMCC |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_QoE\_Enh-Core |  | ***Date:*** | 2023-11-23 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Introducing UE capabilities for NR QoE management and optimizations for diverse services to 38.331 |
|  |  |
| ***Summary of change:*** | The following agreements related to UE capabilities for Rel-18 QoE enhancement are added:In RAN2#123:* Introduce a UE capability indicating whether UE can perform MBS QoE in RRC\_IDLE and RRC\_INACTIVE. FFS whether the same capability can be used for MBS QoE in RRC\_CONNECTED.
* Introduce a UE capability for the supported buffer size. It is conditionally mandatory if UE supports MBS QoE. The range is from 64 kB to 1024 kB (exact values can be discussed in RRC running CR discussion). FFS whether this is shared or additional to the Rel-17 buffer size requirement.

In RAN2#123bis:* For non-RedCap UE, minimum memory requirement for IDLE/INACTIVE reports is 64KB. This memory is in addition to 64KB used for QoE report storage during pause.
* Introduce an optional UE capability indicates whether UE supports 128, 256, 512 and 1024KB buffer size.
* Introduce UE capability of supporting QoE configuration in NR-DC framework with radio access capability parameter.
* Introduce UE capability of supporting SRB5 for QoE reporting with radio access capability parameters.

In RAN2#124:* Priority-based QoE report discarding is an optional UE capability with UE capability signaling. It applies to both reports stored in IDLE/INACTIVE and in RRC CONNECTED during QoE pause.
* Reuse the segmentation capability from Rel-17 QoE also for segmentation over SRB5.
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| ***Consequences if not approved:*** | The network doesn’t know which Rel-18 QoE enhancement feature UE supports. |
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| ***Clauses affected:*** | 6.3.3 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS/TR 38.306 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 Modified Subclause*

# 6 Protocol data units, formats and parameters (ASN.1)

## 6.3 RRC information elements

### 6.3.3 UE capability information elements

**/\* PARTIALLY OMITTED \*/**

*AppLayerMeasParameters*

The IE *AppLayerMeasParameters* is used to convey the capabilities supported by the UE for application layer measurements.

***AppLayerMeasParameters* information element**

-- ASN1START

-- TAG-APPLAYERMEASPARAMETERS-START

AppLayerMeasParameters-r17 ::= SEQUENCE {

 qoe-Streaming-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

 qoe-MTSI-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

 qoe-VR-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

 ran-VisibleQoE-Streaming-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

 ran-VisibleQoE-VR-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

 ul-MeasurementReportAppLayer-Seg-r17 ENUMERATED {supported} OPTIONAL,

...,

[[

 qoe-IdleInactiveMeasReport-r18 ENUMERATED {supported} OPTIONAL,

 qoe-NRDC-MeasReport-r18 ENUMERATED {supported} OPTIONAL,

 qoe-AdditionalMemoryMeasReport-r18 ENUMERATED {kB128, kB256, kB512, kB1024} OPTIONAL,

 qoe-PriorityBasedDiscarding-r18 ENUMERATED {supported} OPTIONAL,

 srb5-r18 ENUMERATED {supported} OPTIONAL

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}

-- TAG-APPLAYERMEASPARAMETERS-STOP

-- ASN1STOP

*End of Changes*