**3GPP TSG-RAN WG2 Meeting #117-e *R2-220xxxx***

**Electronic meeting, 21 February – 3 March 2022**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **Draft** | **rev** | **-** | **Current version:** | **16.7.0** |  |
|  |
| *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 | **X** | Radio Access Network | **X** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Draft 38.331 CR for Rel-17 NR IIoT URLLC UE capabilities |
|  |  |
| ***Source to WG:*** | Intel Corporation  |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** | 2022-02-14 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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:*** | Introduce UE capabilities for Rel-17 NR IIoT URLLC. |
|  |  |
| ***Summary of change:*** | UE capabilities for Rel-17 NR IIoT URLLC are defined. |
|  |  |
| ***Consequences if not approved:*** | UE capabilities for Rel-17 NR IIoT URLLC are not introduced. |
|  |  |
| ***Clauses affected:*** | 6.3.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 38.306 CR xxx  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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

*First change*

### 6.3.3 UE capability information elements

***<Unmodifed part omitted>***

– *MAC-Parameters*

The IE *MAC-Parameters* is used to convey capabilities related to MAC.

***MAC-Parameters* information element**

-- ASN1START

-- TAG-MAC-PARAMETERS-START

MAC-Parameters ::= SEQUENCE {

 mac-ParametersCommon MAC-ParametersCommon OPTIONAL,

 mac-ParametersXDD-Diff MAC-ParametersXDD-Diff OPTIONAL

}

MAC-Parameters-v1610 ::= SEQUENCE {

 mac-ParametersFRX-Diff-r16 MAC-ParametersFRX-Diff-r16 OPTIONAL

}

MAC-ParametersCommon ::= SEQUENCE {

 lcp-Restriction ENUMERATED {supported} OPTIONAL,

 dummy ENUMERATED {supported} OPTIONAL,

 lch-ToSCellRestriction ENUMERATED {supported} OPTIONAL,

 ...,

 [[

 recommendedBitRate ENUMERATED {supported} OPTIONAL,

 recommendedBitRateQuery ENUMERATED {supported} OPTIONAL

 ]],

 [[

 recommendedBitRateMultiplier-r16 ENUMERATED {supported} OPTIONAL,

 preEmptiveBSR-r16 ENUMERATED {supported} OPTIONAL,

 autonomousTransmission-r16 ENUMERATED {supported} OPTIONAL,

 lch-PriorityBasedPrioritization-r16 ENUMERATED {supported} OPTIONAL,

 lch-ToConfiguredGrantMapping-r16 ENUMERATED {supported} OPTIONAL,

 lch-ToGrantPriorityRestriction-r16 ENUMERATED {supported} OPTIONAL,

 singlePHR-P-r16 ENUMERATED {supported} OPTIONAL,

 ul-LBT-FailureDetectionRecovery-r16 ENUMERATED {supported} OPTIONAL,

 -- R4 8-1: MPE

 tdd-MPE-P-MPR-Reporting-r16 ENUMERATED {supported} OPTIONAL,

 lcid-ExtensionIAB-r16 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 spCell-BFR-CBRA-r16 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 srs-ResourceId-Ext-r16 ENUMERATED {supported} OPTIONAL

]],

 [[

 intraCG-Prioritization-r17 ENUMERATED {supported} OPTIONAL,

 jointPrioritizationCG-Retx-Timer-r17 ENUMERATED {supported} OPTIONAL,

 survivalTime-r17 ENUMERATED {supported} OPTIONAL

 ]]

}

MAC-ParametersFRX-Diff-r16 ::= SEQUENCE {

 directMCG-SCellActivation-r16 ENUMERATED {supported} OPTIONAL,

 directMCG-SCellActivationResume-r16 ENUMERATED {supported} OPTIONAL,

 directSCG-SCellActivation-r16 ENUMERATED {supported} OPTIONAL,

 directSCG-SCellActivationResume-r16 ENUMERATED {supported} OPTIONAL,

 -- R1 19-1: DRX Adaptation

 drx-Adaptation-r16 SEQUENCE {

 non-SharedSpectrumChAccess-r16 MinTimeGap-r16 OPTIONAL,

 sharedSpectrumChAccess-r16 MinTimeGap-r16 OPTIONAL

 } OPTIONAL,

 ...

}

MAC-ParametersXDD-Diff ::= SEQUENCE {

 skipUplinkTxDynamic ENUMERATED {supported} OPTIONAL,

 logicalChannelSR-DelayTimer ENUMERATED {supported} OPTIONAL,

 longDRX-Cycle ENUMERATED {supported} OPTIONAL,

 shortDRX-Cycle ENUMERATED {supported} OPTIONAL,

 multipleSR-Configurations ENUMERATED {supported} OPTIONAL,

 multipleConfiguredGrants ENUMERATED {supported} OPTIONAL,

 ...,

 [[

 secondaryDRX-Group-r16 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 enhancedSkipUplinkTxDynamic-r16 ENUMERATED {supported} OPTIONAL,

 enhancedSkipUplinkTxConfigured-r16 ENUMERATED {supported} OPTIONAL

 ]]

}

MinTimeGap-r16 ::= SEQUENCE {

 scs-15kHz-r16 ENUMERATED {sl1, sl3} OPTIONAL,

 scs-30kHz-r16 ENUMERATED {sl1, sl6} OPTIONAL,

 scs-60kHz-r16 ENUMERATED {sl1, sl12} OPTIONAL,

 scs-120kHz-r16 ENUMERATED {sl2, sl24} OPTIONAL

}

-- TAG-MAC-PARAMETERS-STOP

-- ASN1STOP

End of Change