**3GPP TSG-RAN WG2 Meeting #123bis *R2-230xxxx***

**Xiamen, China, October 09-13, 2023**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.331** | **CR** | **-** | **rev** | **-** | **Current version:** | **17.4.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | [RAN2 lead features] UE capabilities for Rel-18 eRedCap WI | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Intel Corporation | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_redcap\_enh-Core | | | | |  | ***Date:*** | | | 2023-09-28 |
|  |  | | | |  | |  | | |  |
| ***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 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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Define the UE capabilities for Rel-18 eRedCap WI on RAN2 lead features. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Define the UE capabilities for Rel-18 eRedCap WI on RAN2 lead features. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Rel-18 eRedCap WI is not complete | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

1. ***Modified section***

### 6.3.3 UE capability information elements

\*\*\* OMITTED TEXT \*\*\*

– *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-Parameters-v1700 ::= SEQUENCE {

mac-ParametersFR2-2-r17 MAC-ParametersFR2-2-r17 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

]],

[[

enhancedUuDRX-forSidelink-r17 ENUMERATED {supported} OPTIONAL,

--27-10: Support of UL MAC CE based MG activation request for PRS measurements

mg-ActivationRequestPRS-Meas-r17 ENUMERATED {supported} OPTIONAL,

--27-11: Support of DL MAC CE based MG activation request for PRS measurements

mg-ActivationCommPRS-Meas-r17 ENUMERATED {supported} OPTIONAL,

intraCG-Prioritization-r17 ENUMERATED {supported} OPTIONAL,

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

survivalTime-r17 ENUMERATED {supported} OPTIONAL,

lcg-ExtensionIAB-r17 ENUMERATED {supported} OPTIONAL,

harq-FeedbackDisabled-r17 ENUMERATED {supported} OPTIONAL,

uplink-Harq-ModeB-r17 ENUMERATED {supported} OPTIONAL,

sr-TriggeredBy-TA-Report-r17 ENUMERATED {supported} OPTIONAL,

extendedDRX-CycleInactive-r17 ENUMERATED {supported} OPTIONAL,

simultaneousSR-PUSCH-DiffPUCCH-groups-r17 ENUMERATED {supported} OPTIONAL,

lastTransmissionUL-r17 ENUMERATED {supported} OPTIONAL

]],

[[

extendedDRX-CycleInactive-r18 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-ParametersFR2-2-r17 ::= SEQUENCE {

directMCG-SCellActivation-r17 ENUMERATED {supported} OPTIONAL,

directMCG-SCellActivationResume-r17 ENUMERATED {supported} OPTIONAL,

directSCG-SCellActivation-r17 ENUMERATED {supported} OPTIONAL,

directSCG-SCellActivationResume-r17 ENUMERATED {supported} OPTIONAL,

drx-Adaptation-r17 SEQUENCE {

non-SharedSpectrumChAccess-r17 MinTimeGapFR2-2-r17 OPTIONAL,

sharedSpectrumChAccess-r17 MinTimeGapFR2-2-r17 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

}

MinTimeGapFR2-2-r17 ::= SEQUENCE {

scs-120kHz-r17 ENUMERATED {sl2, sl24} OPTIONAL,

scs-480kHz-r17 ENUMERATED {sl8, sl96} OPTIONAL,

scs-960kHz-r17 ENUMERATED {sl16, sl192} OPTIONAL

}

-- TAG-MAC-PARAMETERS-STOP

-- ASN1STOP

\*\*\* OMITTED TEXT \*\*\*

***End of the modified section***