**3GPP TSG-RAN WG2 Meeting #126 R2-24XXXXX**

**Fukuoka, Japan, 20th May– 24th May, 2024**

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.306** | **CR** | **draft** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)*** *on using this form: comprehensive instructions can be found at* *<http://www.3gpp.org/Change-Requests>.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Correction on NES UE capabilities to 38306 |
|  |  |
| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | RAN2 |
|  |  |
| ***Work item code:*** | Netw\_Energy\_NR-Core |  | ***Date:*** | 2024-05-31 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***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-17 (Release 17)**Rel-18 (Release 18)**Rel-19 (Release 19)* *Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | 1. The current field description of *scellWithoutSSB-InterBandCA-r18*does not support the NW to configure CA of a higher-order BC while only configuring inter-band SSB-less operation of a lower-order BC;2. The current field description of *scellWithoutSSB-InterBandCA-r18*does not support the report of multiple inter-band SSB-less SCell operation groups |
|  |  |
| ***Summary of change:*** | Revise the field description of *scellWithoutSSB-InterBandCA-r18* according to the agreements and compromised solution at R2#126:

|  |
| --- |
| Agreements1. Instead of reporting ‘supported’ for a band within the BC to indicate this band can be configured as the reference band for all other bands within the BC, the UE optionally reports ‘referenceBand’ or ‘scellWithoutSSB’ for a band to indicate the support of inter-band SSB-less SCell operation.2. The band indicated as ‘referenceBand’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB’.3. If the field scellWithoutSSB-InterBandCA-r18 is absent for a band, this band is not involved in the inter-band SSB-less SCell operation.4. If inter-band SSB-less SCell operation is supported between two bands, it is understood that there is no direction between the two bands, which means that the network can configure either band as the reference band and the other band as the SSB-less band.After CB **Compromise solution. CR to be agreed by email** If scheme1 (to be named) is indicated, the band indicated as ‘scheme1’ can be configured as either the reference band or SSB-less band.If scheme2 (to be named) is indicated, the band indicated as ‘referenceBand1’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB1’, and the band indicated as ‘referenceBand2’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB2’.If the field scellWithoutSSB-InterBandCA-r18 is absent for a band, this band is not involved in the inter-band SSB-less SCell operation.In a band combination, only scheme1 or scheme2 is indicated. |

 |
|  |  |
| ***Consequences if not approved:*** | Rel-18 NES UE capabilities for supporting inter-band SSB-less SCell operation is limited to the case where all the bands within a BC are involved in the inter-band SSB-less SCell operation and in the same operation group. |
|  |  |
| ***Clauses affected:*** | 4.2.7.5 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **x** |  |  Other core specifications  | TS/TR 38.331 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:*** |  |

**START OF THE CHANGE**

## 4.2 UE Capability Parameters

### 4.2.7 Physical layer parameters

#### 4.2.7.5 *FeatureSetDownlink* parameters

< unchanged part is omitted>

| Definitions for parameters | Per | M | FDD-TDDDIFF | FR1-FR2DIFF |
| --- | --- | --- | --- | --- |
| ***scellWithoutSSB-InterBandCA-r18***Indicates whether the UE supports SCell without SS/PBCH block for inter-band CA.For each band within the band combination, UE indicates if it supports the inter-band SSB-less SCell operation with *supportOfSingleGroup* or *supportOfMultipleGroups*:* For *supportOfSingleGroup*, the band indicated as ‘referenceBand’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB’. The band indicated as ‘both’ can be configured as either a reference band or an SSB-less band. If the UE indicates “both” for any band, the UE shall not indicate ‘referenceBand’ or ‘scellWithoutSSB’ in any other band in the band combination.
* For *supportOfMultipleGroups*, the band indicated as ‘referenceBand1’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB1’, and the band indicated as ‘referenceBand2’ can be configured as the reference band for all other band(s) indicated as ‘scellWithoutSSB2’.

If the field *scellWithoutSSB-InterBandCA-r18* is absent for a band, this band is not involved in the inter-band SSB-less SCell operation.If the inter-band SSB-less SCell operation is supported between two bands, it is understood that there is no direction between the two bands, which means that the network can configure either band as the reference band and the other band as the SSB-less band. | FS | No | N/A | FR1 only |

< unchanged part is omitted>

**END OF THE CHANGE**