**3GPP TSG-RAN WG2 Meeting #129 *R2-2500xxx***

**Athens, Greece, Feb 17 – 21, 2025**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **xx** | **rev** | **-** | **Current version:** | **18.4.0** |  |
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| *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:***  | Dummy the capability bit nonDRB-NCR-r18 |
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| ***Source to WG:*** | ZTE Corporation, Ericsson, Samsung, Qualcomm |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | NR\_netcon\_repeater-Core |  | ***Date:*** | 2025-02-24 |
|  |  |  |  |  |
| ***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)* |
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| ***Reason for change:*** | In RAN2 Rel-18 NCR, a capability named *nonDRB-NCR-r18* was introduced to indicate whether the NCR-MT supports SRB2 configuration without DRB. Meanwhile, RAN2 agreed that SRB2 is mandatory feature for NCR-MT, but DRB is optionally supported for NCR-MT. According to TS 38.331, if SRB2 is not configured, some “issues” may occur, and the spec describs the behaviour as below:1. UE cannot be released to RRC\_INACTIVE state; instead, the UE can be released to RRC\_IDLE state;
2. UE cannot trigger RRC re-establishment upon RLF (or when UE is unable to comply the RRCReconfiguration message); instead, the UE enters RRC\_IDLE directly;
3. NAS message cannot be transmitted over SRB2; instead, NAS messages will be transmitted over SRB1.

However, considering DRB establishement can only be triggered by NCR-MT, by coupling SRB2 and DRB capabilities, it is possible that gNB is not able to establish SRB2 when DRB establishment is not triggered by NCR-MT, so, above “issue” is unavoidable in some cases and the usefulness of *nonDRB-NCR-r18* capability is questionable. (e.g. NCR-MT indicates the support of DRB, but does not support SRB2 without DRB)In RAN2#129 meeting, companies discussed above issue and made below agreement: **Agreement:**1 SRB2 is considered as mandatory feature, and decouple SRB2 capability with DRB capability (e.g. dummy “nonDRB-NCR-r18”)Note1: This allows NW to configure SRB2 at anytime if it wants, so the “issues” won’t happen.Note2: This also means it is mandatory for NCR-MT to trigger RRC Reestablishment procedure upon RLF if SRB2 is configured; According to the RAN2 agreement, nonDRB-NCR-r18 capability should be dummified. This CR is provided to capture above RAN2 agreement.  |
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| ***Summary of change:*** | 1. Dummy “nonDRB-NCR-r18” capability.

**Impact analysis**Impacted 5G architecture options:NR SAImpacted functionality:SRB2 configurationInter-operability:* If the network is implemented according to the CR and the NCR-MT is not, or, if the NCR-MT is implemented according to the CR and the network is not, the network and the NCR-MT may have different understandings on whether SRB2 without DRB can be configured and result in RRC configuration failure.
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| ***Consequences if not approved:*** | The spec is unclear how to indicate the mandatory support of SRB2 configuration for NCR-MT and it is unclear how to set the ”nonDRB-NCR-r18” capability. |
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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 to be added  |
| ***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 change***

### 6.3.3 UE capability information elements

\*\*\*omit non-related part\*\*\*

#### – *NCR-Parameters*

The IE *NCR-Parameters* is used to indicate the UE capabilities supported by NCR-MT.

*NCR-Parameters* information element

-- ASN1START

-- TAG-NCR-PARAMETERS-START

NCR-Parameters-r18::= SEQUENCE {

 inactiveStateNCR-r18 ENUMERATED {supported} OPTIONAL,

 supportedNumberOfDRBs-NCR-r18 ENUMERATED {n1,n16} OPTIONAL,

 dummy ENUMERATED {supported} OPTIONAL

}

-- TAG-NCR-PARAMETERS-STOP

-- ASN1STOP

***End of change***