**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** |  |
|  | | | | | | | | |
| *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 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | ZTE Corporation, Ericsson, Samsung, Qualcomm, Nokia | | | | | | | | | |
| ***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 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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***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 describes 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. | | | | | | | | |
|  | | “ | | | | | | | | |
| ***Summary of change:*** | | 1. Dummy “nonDRB-NCR-r18” capability.   **Impact analysis**  Impacted 5G architecture options:  NR SA  Impacted functionality:  SRB2 configuration  Inter-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 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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***