**3GPP TSG-****RAN2 Meeting #112 electronic R2-2009393**

**Electronic, November 2nd – 13th, 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **2064** | **rev** | **-** | **Current version:** | **16.2.0** |  |
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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:***  | Corrections on PDCP duplication capability for NR-DC |
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| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | NR\_newRAT-Core |  | ***Date:*** | 2020-11-02 |
|  |  |  |  |  |
| ***Category:*** | **A** |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | The current spec in TS 38.331 has capatured the parameters of *pdcp-DuplicationSplitSRB* and *pdcp-DuplicationSplitDRB* in *UE-MRDC-Capability-> pdcp-ParametersMRDC-v1530-> PDCP-ParametersMRDC* as below:***PDCP-ParametersMRDC* information element**-- ASN1START-- TAG-PDCP-PARAMETERSMRDC-STARTPDCP-ParametersMRDC ::= SEQUENCE { pdcp-DuplicationSplitSRB ENUMERATED {supported} OPTIONAL, pdcp-DuplicationSplitDRB ENUMERATED {supported} OPTIONAL}PDCP-ParametersMRDC-v1610 ::= SEQUENCE { scg-DRB-NR-IAB-r16 ENUMERATED {supported} OPTIONAL}-- TAG-PDCP-PARAMETERSMRDC-STOP-- ASN1STOPHowever, the IE *PDCP-ParametersMRDC* is used to convey PDCP duplication related capabilities for MR-DC, which is not for NR-DC. In other words, the capabilities of *pdcp-DuplicationSplitSRB* and *pdcp-DuplicationSplitDRB* are absent for NR-DC. So corrections are needed to make up for the missing capabilities. |
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| ***Summary of change:*** | Two following parameters are added in the *UE-NR-Capability*->*UE-NR-Capability-v1560*->*NRDC-Parameters*:* *pdcp-DuplicationSplitSRB*
* *pdcp-DuplicationSplitDRB*

**Impact Analysis**Impacted 5G architecture options:NR-DCImpacted functionality:UE CapabilityInter-operability:1. If the network is implemented according to the CR and the UE is not, there is no inter-operability issue, since the UE will not report the added capabilities to the network, and the network will not configure the PDCP duplication functions to the UE in NR-DC.2. If the UE is implemented according to the CR and the network is not, there is no inter-operability issue, since the UE may report the added capabilities to the network but the network will not see the capabilities and thus will not configure the PDCP duplication functions to the UE in NR-DC.. |
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| ***Consequences if not approved:*** | DC-based PDCP duplication for split DRB and DC-based PDCP duplication for split SRB1/2 in NR-DC will not be supported. |
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| ***Clauses affected:*** | 6.3.3 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ... |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

#### <Start of modification>

– *NRDC-Parameters*

The IE *NRDC-Parameters* contains parameters specific to NR-DC, i.e., which are not applicable to NR SA.

***NRDC-Parameters* information element**

-- ASN1START

-- TAG-NRDC-PARAMETERS-START

NRDC-Parameters ::= SEQUENCE {

 measAndMobParametersNRDC MeasAndMobParametersMRDC OPTIONAL,

 generalParametersNRDC GeneralParametersMRDC-XDD-Diff OPTIONAL,

 fdd-Add-UE-NRDC-Capabilities UE-MRDC-CapabilityAddXDD-Mode OPTIONAL,

 tdd-Add-UE-NRDC-Capabilities UE-MRDC-CapabilityAddXDD-Mode OPTIONAL,

 fr1-Add-UE-NRDC-Capabilities UE-MRDC-CapabilityAddFRX-Mode OPTIONAL,

 fr2-Add-UE-NRDC-Capabilities UE-MRDC-CapabilityAddFRX-Mode OPTIONAL,

 lateNonCriticalExtension OCTET STRING (CONTAINING NRDC-Parameters-v15xy-IEs) OPTIONAL,

 dummy SEQUENCE {} OPTIONAL

}

NRDC-Parameters-v15xy-IEs ::= SEQUENCE {

pdcp-DuplicationSplitSRB ENUMERATED {supported} OPTIONAL,

pdcp-DuplicationSplitDRB ENUMERATED {supported} OPTIONAL,

nonCriticalExtension SEQUENCE {} OPTIONAL

}

NRDC-Parameters-v1570 ::= SEQUENCE {

 sfn-SyncNRDC ENUMERATED {supported} OPTIONAL

}

NRDC-Parameters-v1610 ::= SEQUENCE {

 measAndMobParametersNRDC-v1610 MeasAndMobParametersMRDC-v1610 OPTIONAL

}

-- TAG-NRDC-PARAMETERS-STOP

-- ASN1STOP

#### <End of modification>