**3GPP TSG-RAN WG3 Meeting#109-e R3-204994**

**E-Meeting, 17 – 28 August, 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **37.340** | **CR** |  | **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 |  | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Introducing UE Radio Capability Mapping procedure for EN-DC | | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | | |
| ***Source to TSG:*** | RAN3 | | | | | | | | | | |
|  |  | | | | | | | | | | |
| ***Work item code:*** | RACS-RAN | | | | | |  | | ***Date:*** | | 2020-08-05 |
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| ***Category:*** | **F** |  | | | | | | | ***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 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-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:*** | | It has been agreed that the RACS feature is supported in EN-DC. For EN-DC, since some SN nodes (e.g. the SN-only node) have no control plane with the EPC, those SN nodes are not able require the UE capabilities from the EPC.  Therefore, there is a need for the en-gNB to request the eNB to send the UE radio capability information associated with a UE radio capability ID. | | | | | | | | | |
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| ***Summary of change:*** | | Clarify that in EN-DC the SN is allowed to retrieve the UE Radio Capability information from the MN.  Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release) because only a new UE Radio Capability Mapping procedure is introduced.  The impact can be considered isolated. | | | | | | | | | |
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| ***Consequences if not approved:*** | | Agreed principle for RACS for EN-DC would not be supported. | | | | | | | | | |
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| ***Clauses affected:*** | |  | | | | | | | | | |
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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 ... | | | |
|  | |  | | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | | |
|  | | | |  | | | | | | | |
| ***This CR's revision history:*** | | | |  | | | | | | | |

START OF CHANGE

7.3 UE capability coordination

In (NG)EN-DC and NE-DC, thehe capabilities of a UE supporting MR-DC are carried by different capability containers. Some MR-DC related capabilities are in the MR-DC container e.g. MR-DC band combinations, while other MR-DC related capabilities are contained in the E-UTRA and NR capability containers e.g. feature sets. The MR-DC capabilities in the MR-DC container need to be visible to both MN and SN, while the capabilities in the E-UTRA and NR containers only need to be visible to the node of the concerned RAT.

In NR-DC, all NR-DC related capabilities are in the NR capability container and are visible to both MN and SN.

When retrieving MR-DC related capabilities, the MN shall provide an MR-DC filter that affects the MR-DC related capabilities in MR-DC, E-UTRA and NR capability containers. When using different *UE capability enquiry* messages to retrieve the different containers, the MN shall employ the same MR-DC filter in all enquiry messages. In the E-UTRA RRC UE capability enquiry, the MR-DC filter is also used for retrieval of NR capabilities i.e. there is in fact one MR-DC/NR filter (while there is a separate filter for E-UTRA capabilities). Furthermore, the MN stores the retrieved capabilities and the corresponding filter, used to retrieve those capabilities, in the core network for later use.

For the UE capabilities requiring coordination between E-UTRA and NR (i.e. band combinations, baseband processing capabilities and the maximum power for FR1 the UE can use in SCG) or between NR MN and NR SN (i.e. band combinations, baseband processing capabilities), it is up to the MN to decide on how to resolve the dependency between MN and SN configurations. The MN then provides the resulting UE capabilities usable for SCG configuration to the SN, including the list of allowed MR-DC band combinations and feature sets, and the SN indicates the selected band combination and feature set to the MN. When subsequently reconfiguring the SCG, the SN should inform the MN whenever the band combination and/or feature set it selected for the SCG changes (i.e. even if the selection concerns a band combination and feature set that is allowed). As part of an SN initiated SN modification, the SN may also indicate the desired UE capabilities usable for SCG configuration (e.g. a band combination and a feature set) outside those allowed by the MN (i.e. it may re-negotiate the UE capabilities for SCG configuration), and it is up to the MN to make the final decision whether to accept or reject the request.

In EN-DC and MR-DC with 5GC, the MN may provide the UE radio capability ID to the SN. For EN-DC, the SN may retrieve the UE Radio Capability information associated to a UE radio capability ID from the MN. For MR-DC with 5GC, the SN may retrieve the UE radio capability information associated to a UE radio capability ID from the 5GC.

END OF CHANGE