**3GPP TSG RAN WG4 Meeting #102-e R4-2206867**

**E-meeting, 21 Feb. 2022 – 03 Mar. 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** | **1** | **Current version:** | **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 |  | Core Network |  |

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| ***Title:***  | Draft CR on HO with PSCell requirements for NE DC to NE-DC  |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | NR\_RRM\_enh2-Core |  | ***Date:*** |  2022-02-14 |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** | Rel-17 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Introduction of HO with PSCell feature in Rel-17 |
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| ***Summary of change:*** | Introducing the HO with PSCell requirements for NE-DC to NE-DC scenario. |
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| ***Consequences if not approved:*** | HO with PSCell requirements for NE-DC to NE-DC will be missing in Rel-17 specifications |
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| ***Clauses affected:*** | 6.1.5.4, 6.1.5.4.1, 6.1.5.4.2, 6.1.5.4.3 |
|  |  |
|  | **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:*** | R4-2205839 |

<Start of Change>

#### 6.1.5.4 HO with PSCell from NE-DC to NE-DC

The requirements in this clause are applicable to both intra-frequency and inter-frequency handovers from NR PCell to NR PCell on FR1, and the PSCell addition is on LTE.

##### 6.1.5.4.1 Handover delay

When the UE receives a RRC message implying PCell handover with PSCell change, the UE shall be ready to start the transmission of the new uplink PRACH channel on target NR PCell within DHOwithPSCell\_PCell from the end of the last TTI containing the RRC command, and UE shall be ready to start the transmission of the new uplink PRACH channel on target E-UTRA PSCell within DHOwithPSCell\_PSCell from the end of the last TTI containing the RRC command.

The PCell handover delay, DHOwithPSCell\_PCell, is equals the applicable RRC procedure delay defined in clause 12 in TS 38.331 [2] plus the PCell interruption time (Tinterrupt) define in clause 6.1.5.4.2.

PSCell addition/change delay, DHOwithPSCell\_PSCell is defined in clause 6.1.5.4.3.

##### 6.1.5.4.2 HO with PSCell - PCell Interruption time

When intra-frequency or inter-frequency handover is commanded, the interruption time shall be less than Tinterrupt

 Tinterrupt = Tsearch\_PCell + T∆\_PCell + Tmargin\_PCell + TIU\_PCell + Tprocessing ms

Where:

* If the source cell is in FR1 and target cell is in FR1, Tsearch\_PCell,  T∆\_PCell, Tmargin\_PCell, TIU\_PCell is same as the Tsearch, T∆, Tmargin, TIU defined in section 6.1.1.2.2 respectively. Tprocessing is UE software processing and RF warmup delay for PCell HO and for this case Tprocessing can be up to 25ms.

##### 6.1.5.4.3 PSCell addition/change in NE-DC to NE-DC HO with PSCell

When HO with PSCell addition is commanded, the PSCell addition/change time shall be less than DHOwithPSCel\_PSCell.

Where DHOwithPSCel\_PSCell is same as Tconfig\_PSCell defined in clause 7.14.2 of TS 36.133, except that UE processing delay for software processing and RF warmup is same as processing delay specified for PCell HO in 6.1.5.4.2.

<End of Change>