**3GPP TSG-RAN2 Meeting #110-e *R2-2005765***

**Online, , 1st Jun 2020 - 12th Jun 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.306** | **CR** | **1763** | **rev** | **-1** | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *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:*** | UE Capability for Rel-16 LTE even further mobility enhancement | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Telecom | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_feMob-Core | | | | |  | ***Date:*** | | | 2020-05-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | To capture capabilities for LTE mobility enhancement into stage 3 specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To capture below capabilities:  **DAPS:**  intraFreqDAPS-r16;  intraFreqAsyncDAPS-r16  intraFreqMultiUL-TransmissionDAPS-r16  interFreqDAPS-r16  interFreqAsyncDAPS-r16  interFreqMultiUL-TransmissionDAPS-r16  intraFreqTwoTAGs-DAPS-r16  ~~uplinkPowerSharingDAPS-r16~~  ul-TransCancellationDAPS-r16 (*Editor's note: ul-TransCancellationDAPS is FFS and may need update on RAN1 conclusion.*)  **CHO:**  cho-FDD-TDD-r16  cho-r16  cho-Failure-r16 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Capability part for LTE moiblity enhancement is missing in stage 3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.4, 4.3.5, 4.3.30 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 36.331 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |

**-----------------------------------------[Changes Start]-----------------------------------------------------**

### 4.3.4 Physical layer parameters

------------unchanged part omitted-------------

#### 4.3.4.191 *widebandPRG-Slot-r16, widebandPRG-Subslot-r16, widebandPRG-Subframe-r16*

This field indicates whether the UE supports wideband precoding resource block group size for slot/subslot/subframe PDSCH operation as specified in TS 36.213 [22].

#### 4.3.4.x1 *ul-TransCancellationDAPS-r16*

This field indicates support of cancelling UL transmission to the source PCell.

#### ~~4.3.4.x2~~ *~~uplinkPowerSharingDAPS-r16~~*

~~This field indicates whether the UE supports UL power sharing during DAPS handover.~~

**-----------------------------------------[Next Change]-----------------------------------------------------**

### 4.3.5 RF parameters

#### 4.3.5.3 *multipleTimingAdvance*

This field defines whether multiple timing advances are supported for each band combination supported by the UE. It is mandatory for UEs of this release of the specification to support this capability for band combinations having an UL on multiple FDD bands as specified in TS 36.101 [6]. If the band combination comprised of more than one band entry (i.e., inter-band or intra-band non-contiguous band combination), the field indicates that different timing advances on different band entries are supported. If the band combination comprised of one band entry (i.e., intra-band contiguous band combination), the field indicates that different timing advances across component carriers of the band entry are supported. This field is mandatory for UEs supporting DAPS handover.

--------------unchanged part omitted---------------------

#### 4.3.5.x1 *intraFreqDAPS-r16*

This field indicates whether UE supports synchronous DAPS handover in source PCell and intra-frequency target PCell, i.e. support of simultaneous DL reception of PDCCH and PDSCH from source and target cell. This filed also indicates whether UE supports power control mode 1, as specified in TS 36.213 [22].

#### 4.3.5.x2 *intraFreqAsyncDAPS-r16*

This field indicates whether the UE supports asynchronous DAPS handover in source PCell and intra-frequency target PCell. This filed also indicates whether UE supports power control mode 2, as specified in TS 36.213 [22].

#### 4.3.5.x3 *intraFreqMultiUL-TransmissionDAPS*

This field indicates that the UE supports simultaneous UL transmission in source PCell and intra-frequency target PCell.

#### 4.3.5.x4 *interFreqDAPS-r16*

This field indicates whether the UE supports synchronous DAPS handover in source PCell and inter-frequency target PCell, i.e. support of simultaneous DL reception of PDCCH and PDSCH from source and target cell. This filed also indicates whether UE supports power control mode 1, as specified in TS 36.213 [22].

#### 4.3.5.x5 *interFreqAsyncDAPS-r16*

This field indicates whether the UE supports asynchronous DAPS handover in source PCell and inter-frequency target PCell.This filed also indicates whether UE supports power control mode 2, as specified in TS 36.213 [22].

#### 4.3.5.x6 *interFreqMultiUL-TransmissionDAPS*

This field indicates that the UE supports simultaneous UL transmission in source PCell and inter-frequency target PCell.

#### 4.3.5.x9 *intraFreqMultiTAG-DAPS-r16*

This field indicates whether the UE supports different timing advance groups in source PCell and intra-frequency target PCell. It is mandatory for intraFreqDAPS capable UE.

#### 4.3.5.x10 *ul-TransCancellationDAPS-r16*

This field indicates support of cancelling UL transmission to the source PCell. It is mandatory for intraFreqDAPS and interFreqDAPS capable UE.

*Editor's note: ul-TransCancellationDAPS is FFS and may need update on RAN1 conclusion.*

**-----------------------------------------[Next Change]-----------------------------------------------------**

-------------unchanged part omitted--------------------

### 4.3.30 Mobility enhancement parameters

#### 4.3.30.1 *makeBeforeBreak-r14*

This field defines whether the UE supports Make-Before-Break handover and, if the UE supports DC, Make-Before-Break SeNB change, as specified in TS 36.331 [5].

#### 4.3.30.2 *rach-Less-r14*

This field defines whether the UE supports RACH-less handover and, if the UE supports DC, RACH-less SeNB change, as specified in TS 36.213 [22] and TS 36.331 [5].

#### 4.3.30.x1 *cho-r16*

This field indicates whether the UE supports conditional handover including execution condition and candidate cell configuration.

#### 4.3.30.x2 *cho-Failure-r16*

This field indicates whether the UE supports conditional handover during re-establishment procedure when the selected cell is configured as candidate cell for condition handover.

#### 4.3.30.x3 *cho-FDD-TDD-r16*

This field indicates whether the UE supports conditional handover between FDD and TDD cells.

**-----------------------------------------[ Changes End]-----------------------------------------------------**