3GPP TSG-RAN WG3 Meeting #127-bis R3-252120

**Wuhan, China, 7th – 11th April, 2025**

Title: (TP for LTM BLCR for TS38.473): Support of intra-CU conditional LTM

Agenda Item: 13.3

Source: Huawei

Document for: Other

# 1 Introduction

This contribution contains a TP for LTM BLCR for TS38.473 for supppot of conditional LTM.

# 2 TP for LTM BLCR for TS38.473

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Start of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

### 8.3.8 Access Success

#### 8.3.8.1 General

The purpose of the Access Success procedure is to enable the gNB-DU to inform the gNB-CU of which cell the UE has successfully accessed during conditional handover, conditional PSCell addition,conditional PSCell change,LTM, conditional LTM, or subsequent CPAC. The procedure uses UE-associated signalling.

#### 8.3.8.2 Successful Operation



Figure 8.3.8.2-1: Access Success procedure. Successful operation.

The gNB-DU initiates the procedure by sending a ACCESS SUCCESS message.

Upon reception of the ACCESS SUCCESS message, the gNB-CU shall consider that the UE successfully accessed the cell indicated by the included *NR CGI* IE in this gNB-DU and consider all the other CHO or conditional PSCell addition or conditional PSCell change preparations accepted for this UE under the same UE-associated signaling connection in this gNB-DU as cancelled. In case of subsequent mobility, the other preparations accepted for this UE under the same UE-associated signaling connection in this gNB-DU are kept.

**Interaction with other procedure:**

The gNB-CU may initiate UE Context Release procedure toward the other signalling connections or other candidate gNB-DUs for this UE, if any.

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

#### 9.2.2.2 UE CONTEXT SETUP RESPONSE

This message is sent by the gNB-DU to confirm the setup of a UE context.

Direction: gNB-DU → gNB-CU.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| DU To CU RRC Information | M |  | 9.3.1.26 |  | YES | reject |
| <skip unchanged part> | | | | | | |
| **Early Sync Information** |  | *0..1* |  |  | YES | ignore |
| >TCI States Configurations List | M |  | OCTET STRING | Includes the *LTM-TCI-Info*  IE, as defined in TS 38.331 [8]. | - |  |
| >Early UL Sync Configuration | O |  | 9.3.1.328 |  | - |  |
| >Early UL Sync Configuration for SUL | O |  | Early UL Sync Configuration  9.3.1.328 | This IE applies for SUL carrier. | - |  |
| **LTM Configuration** |  | *0..1* |  |  | YES | ignore |
| **>**SSB Information | M |  | 9.3.1.202 | Includes the SSB Information for the requested target cell. | - |  |
| >Reference Configuration Information | O |  | OCTET STRING | Includes the *CellGroupConfig* IE, as defined in TS 38.331 [8]. | - |  |
| >Complete Candidate Configuration Indicator | O |  | ENUMERATED (complete, ...) |  | - |  |
| >LTM CFRA Resource Configuration | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. | - |  |
| >LTM CFRA Resource Configuration for SUL | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. This IE applies for SUL carrier. | - |  |
| >L1 Execcution Condition Conditional LTM | O |  | FFS | The detailed definition of this IE is FFS. |  |  |
| **S-CPAC Configuration** |  | *0..1* |  |  | YES | ignore |
| >Reference Configuration Information | O |  | OCTET STRING | Includes the *CellGroupConfig* IE, as defined in TS 38.331 [8]. | - |  |
| >Complete Candidate Configuration Indicator | O |  | ENUMERATED (complete, ...) |  | - |  |

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#### 9.2.2.7 UE CONTEXT MODIFICATION REQUEST

This message is sent by the gNB-CU to provide UE Context information changes to the gNB-DU.

Direction: gNB-CU → gNB-DU

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| SpCell ID | O |  | NR CGI 9.3.1.12 | Special Cell as defined in TS 38.321 [16]. For handover case, this IE is considered as target cell. | YES | ignore |
| <skip unchanged part> | | | | | | |
| **LTM Information Modify** |  | *0..1* |  |  | YES | reject |
| >LTM Indicator | M |  | ENUMERATED (true, conditional,…) |  | - |  |
| >Reference Configuration | O |  | 9.3.1.292 |  | - |  |
| >CSI Resource Configuration | O |  | 9.3.1.330 |  | - |  |
| **LTM CFRA Resource Config List** |  | *0..1* |  |  | YES | ignore |
| **>LTM CFRA Resource Config Item IEs** |  | *1 .. <maxnoofLTMCells>* |  |  | EACH | ignore |
| >>Cell ID | M |  | NR CGI  9.3.1.12 |  | - |  |
| >>LTM CFRA Resource Configuration | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. | - |  |
| >>LTM CFRA Resource Configuration for SUL | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. This IE applies for SUL carrier. | - |  |
| LTM Configuration ID Mapping List | O |  | 9.3.1.294 |  | YES | reject |
| **Early Sync Information Request** |  | *0..1* |  |  | YES | ignore |
| >Request for RACH Configuration | M |  | ENUMERATED (true, …) |  | - |  |
| **>LTM gNB-DUs ID List** |  | *1* |  | This IE contains the IDs of the source gNB-DU and candidate gNB-DU(s). | YES | reject |
| **>>LTM gNB-DUs Item IEs** |  | *1..< maxnoofLTMgNBDUs>* |  |  | - |  |
| >>>LTM gNB-DU ID | M |  | gNB-DU ID  9.3.1.9 |  | - |  |
| >>>LTM gNB ID | O |  | Global gNB ID 9.3.1.305 |  | - |  |
| **Early Sync Candidate Cell Information List** |  | *0..1* |  |  | YES | ignore |
| **>Early Sync Candidate Cell Information Item IEs** |  | *1 .. <maxnoofLTMCells>* |  |  | EACH | ignore |
| >>Cell ID | M |  | NR CGI  9.3.1.12 |  | - |  |
| >>TCI States Configurations List | O |  | OCTET STRING | Includes the *LTM-TCI-Info*  IE, as defined in TS 38.331 [8]. | - |  |
| >>Early UL Sync Configuration | O |  | 9.3.1.328 |  | - |  |
| >>Early UL Sync Configuration for SUL | O |  | Early UL Sync Configuration  9.3.1.328 | This IE applies for SUL carrier. | - |  |
| >>TA Assistance Information | O |  | ENUMERATED (zero, …) | The value "zero" corresponds to TA value of the cell being equal to zero. | - |  |
| >>UE Based TA Measurement Configuration | O |  | OCTET STRING | Includes the *ltm-UE-MeasuredTA-ID* contained in the *LTM-Candidate* IE, as defined in TS 38.331 [8], for the LTM candidate cell identified by the *Cell ID* IE. | - |  |
| >>SSB Positions In Burst | C-ifEarlyUL |  | 9.3.1.138 | This IE applies to early TA acquisition. | YES | ignore |
| **Early Sync Serving Cell Information** |  | *0..1* |  |  | YES | ignore |
| >UE Based TA Measurement Configuration | O |  | OCTET STRING | Includes the *ltm-ServingCellUE-MeasuredTA-ID* contained in the *LTM-Config* IE, as defined in TS 38.331 [8], for the current serving cell. | - |  |
| LTM Cells To Be Released List | O |  | 9.3.1.291 |  | YES | reject |
| Path Addition Information | O |  | 9.3.1.296 |  | YES | reject |
| NR A2X Services Authorized | O |  | 9.3.1.323 |  | YES | ignore |
| LTE A2X Services Authorized | O |  | 9.3.1.324 |  | YES | ignore |
| NR UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | NR UE Sidelink Aggregate Maximum Bit Rate  9.3.1.119 | This IE applies only if the UE is authorized for NR A2X services. | YES | ignore |
| LTE UE Sidelink Aggregate Maximum Bit Rate for A2X | O |  | LTE UE Sidelink Aggregate Maximum Bit Rate  9.3.1.118 | This IE applies only if the UE is authorized for LTE A2X services. | YES | ignore |
| DL LBT Failure Information Request | O |  | ENUMERATED (inquiry, …) |  | YES | ignore |
| Ranging and Sidelink Positioning Service Information | O |  | 9.3.1.331 | This IE applies only if the UE is authorized for NR V2X services and/or 5G ProSe services. | YES | ignore |
| Non-Integer DRX Cycle | O |  | 9.3.1.344 |  | YES | ignore |
| LTM Reset Information | O |  | 9.3.1.346 |  | YES | ignore |
| Conditional LTM Execution Success Notification | O |  | ENUMERATED (ture, …) |  | YES | ignore |

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Next change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

#### 9.2.2.8 UE CONTEXT MODIFICATION RESPONSE

This message is sent by the gNB-DU to confirm the modification of a UE context.

Direction: gNB-DU → gNB-CU.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| <skip unchanged part> | | | | | | |
| **Early Sync Information** |  | *0..1* |  |  | YES | ignore |
| >TCI States Configurations List | M |  | OCTET STRING | Includes the *LTM-TCI-Info*  IE, as defined in TS 38.331 [8]. | - |  |
| >Early UL Sync Configuration | O |  | 9.3.1.328 |  | - |  |
| >Early UL Sync Configuration for SUL | O |  | Early UL Sync Configuration  9.3.1.328 | This IE applies for SUL carrier. | - |  |
| **LTM Configuration** |  | *0..1* |  |  | YES | ignore |
| >SSB Information | M |  | 9.3.1.202 | Includes the SSB Information for the requested target cell | - |  |
| >Reference Configuration Information | O |  | OCTET STRING | Includes the *CellGroupConfig* IE, as defined in TS 38.331 [8]. | - |  |
| >Complete Candidate Configuration Indicator | O |  | ENUMERATED (complete, ...) |  | - |  |
| >LTM CFRA Resource Configuration | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. | - |  |
| >LTM CFRA Resource Configuration for SUL | O |  | OCTET STRING | Includes the *RACH-ConfigDedicated* IE, as defined in TS 38.331 [8]. This IE applies for SUL carrier. | - |  |
| >L1 Execcution Condition Conditional LTM | O |  | FFS | The detailed definition of this IE is FFS. |  |  |
| **S-CPAC Configuration** |  | *0..1* |  |  | YES | ignore |
| >Reference Configuration Information | O |  | OCTET STRING | Includes the *CellGroupConfig* IE, as defined in TS 38.331 [8]. | - |  |
| >Complete Candidate Configuration Indicator | O |  | ENUMERATED (complete, ...) |  | - |  |

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#### 9.2.2.14 ACCESS SUCCESS

This message is sent by the gNB-DU to inform the gNB-CU of which cell the UE has successfully accessed during conditional handover, conditional PSCell addition, conditional PSCell change, LTM, conditional LTM, or subsequent CPAC.

Direction: gNB-DU → gNB-CU

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.3.1.1 |  | YES | ignore |
| gNB-CU UE F1AP ID | M |  | 9.3.1.4 |  | YES | reject |
| gNB-DU UE F1AP ID | M |  | 9.3.1.5 |  | YES | reject |
| NR CGI | M |  | 9.3.1.12 |  | YES | reject |

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of changes\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/