**3GPP TSG-RAN WG3 Meeting #115-e *R3-222545***

**E-meeting, 21 Feb – 3 Mar 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.401** | **CR** | **0176** | **rev** | **9** | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **x** | Core Network |  |

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| ***Title:*** | SCG BL CR to TS 38.401 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NR\_DC\_enh2-Core | | | | |  | ***Date:*** | | | 2022-02-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | To support SCG activation and deactivation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Add new sections about SCG activation and deactivation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Cannot support SCG activation and deactivation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.4.x (new), 8.4.x.1 (new), 8.4.x.2 (new), 8.4.x.3 (new), 8.4.x.4 (new), 8.4.x.5 (new), | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 37.340 draftCR  TS 38.423 CR 0633  TS 36.423 CR 1609  TS 38.473 CR 0777 | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1: capture the agreed TP R3-212832.  Rev 2: resubmission based on latest version of spec.  Rev 3: capture the agreed TP R3-214399.  Rev 4: resubmission based on latest version of spec.  Rev 5: capture the agreed TP R3-216037.  Rev 6: resubmission.  Rev 7: update 8.4.x.6 step 5 from “is deactivated” to “is activated”  Rev 8: capture the agreed TP R3-221335  Rev 9: fix typo “SC” to “SCG” | | | | | | | | |

***--------------------------------Start of the First Change-----------------------------***

### 8.4.x SCG Deactivation and Activation

This clause gives the NR SCG deactivation and activation in EN-DC and MR-DC with NR SN given that the en-gNB and SgNB consists of a gNB-CU and gNB-DU(s).

Editor’s note: among the procedures listed in this section, when to perform the SCG status notification from CU-CP to CU-UP is FFS.

#### 8.4.x.1 SN Addition with SCG Deactivation



**Figure 8.4.x.1-1: SCG Deactivation in SN Addition procedure**

1. The MN sends the SN addition Request towards the SN, indicates the request of SCG deactivation.

2. The SN-CU-CP sends BEARER CONTEXT SETUP REQUEST message to the SN-CU-UP to setup bearer context and notify the deactivated status of SCG.

3. The SN-CU-UP sends the BEARER CONTEXT SETUP RESPONSE message to the SN-CU-CP.

4. The SN-CU sends the UE CONTEXT SETUP REQUEST message to the SN-DU to setup UE context and indicate the request of SCG deactivation.

5. The SN-DU sends the UE CONTEXT SETUP RESPONSE message to the SN-CU.

6. The SN sends the SN addition Request Acknowledge towards the MN.

#### 8.4.x.2 SN Addition with SCG Activation



**Figure 8.4.x.2-1: SCG Activation in SN Addition procedure**

1. The MN sends the SN addition Request towards the SN, indicates the request of SCG activation.

2. The SN-CU-CP sends BEARER CONTEXT SETUP REQUEST message to the SN-CU-UP to setup bearer context and notify the activated status of SCG.

3. The SN-CU-UP sends the BEARER CONTEXT SETUP RESPONSE message to the SN-CU-CP.

4. The SN-CU sends the UE CONTEXT SETUP REQUEST message to the SN-DU to setup UE context and indicate the request of SCG activation.

5. The SN-DU sends the UE CONTEXT SETUP RESPONSE message to the SN-CU.

6. The SN sends the SN addition Request Acknowledge towards the MN.

#### 8.4.x.3 MN initiated SN Modification with SCG Deactivation



**Figure 8.4.x.3-1: SCG Deactivation in MN initiated SN Modification procedure**

1. SCG is activated.

2. The MN sends the SN Modification Request towards the SN, indicates the request of SCG deactivation.

3. The SN-CU-CP sends BEARER CONTEXT MODIFICATION REQUEST message to the SN-CU-UP to notify the deactivated status of SCG.

4. The SN-CU-UP sends the BEARER CONTEXT MODIFICATION RESPONSE message to the SN-CU-CP.

5. The SN-CU sends the UE CONTEXT MODIFICATION REQUEST message to the SN-DU to indicate the request of SCG deactivation.

6. The SN-DU sends the UE CONTEXT MODIFICATION RESPONSE message to the SN-CU, indicates that the SCG is deactivated.

7. The SN sends the SN Modification Request Acknowledge towards the MN, indicates that the SCG is deactivated.

#### 8.4.x.4 MN initiated SN Modification with SCG Activation



**Figure 8.4.x.4-1: SCG Activation in MN initiated SN Modification procedure**

1. SCG is deactivated.

2. MN sends the SN Modification Request towards the SN, indicates the request of SCG activation.

3. The SN-CU-CP sends BEARER CONTEXT MODIFICATION REQUEST message to the SN-CU-UP to notify the activated status of SCG.

4. The SN-CU-UP sends the BEARER CONTEXT MODIFICATION RESPONSE message to the SN-CU-CP

5. The SN-CU sends the UE CONTEXT MODIFICATION REQUEST message to the SN-DU to indicate the request of SCG activation.

6. The SN-DU sends the UE CONTEXT MODIFICATION RESPONSE message to the SN-CU, indicates that the SCG is activated.

7. The SN sends the SN Modification Request Acknowledge towards the MN, indicates that the SCG is activated.

#### 8.4.x.5 SN initiated SN Modification with SCG Deactivation

Editor’s note: when to perform the SCG status notification to UP is FFS.



**Figure 8.4.x.5-1: SCG Deactivation in SN initiated SN Modification procedure**

1. SCG is activated.

2. The SN-CU-CP sends BEARER CONTEXT MODIFICATION REQUEST message to the SN-CU-UP to notify the deactivated status of SCG.

3. The SN-CU-UP sends the BEARER CONTEXT MODIFICATION RESPONSE message to the SN-CU-CP.

4. The SN-CU sends the UE CONTEXT MODIFICATION REQUEST message to the SN-DU to indicate the request of SCG deactivation.

5. The SN-DU sends the UE CONTEXT MODIFICATION RESPONSE message to the SN-CU, indicates that the SCG is deactivated.

6. The SN sends the SN Modification Require towards the MN, indicates the request of SCG deactivation.

7. The MN sends the SN Modification Confirm towards the SN.

#### 8.4.x.6 SN initiated SN Modification with SCG Activation



**Figure 8.4.x.6-1: SCG Activation in SN initiated SN Modification procedure**

1. SCG is deactivated.

2. The SN-CU-CP sends BEARER CONTEXT MODIFICATION REQUEST message to the SN-CU-UP to notify the activated status of SCG.

3. The SN-CU-UP sends the BEARER CONTEXT MODIFICATION RESPONSE message to the SN-CU-CP.

4. The SN-CU sends the UE CONTEXT MODIFICATION REQUEST message to the SN-DU to indicate the request of SCG activation.

5. The SN-DU sends the UE CONTEXT MODIFICATION RESPONSE message to the SN-CU, indicates that the SCG is activated.

6. The SN sends the SN Modification Required towards the MN, indicates the request of SCG activation.

7. The MN sends the SN Modification Confirm towards the SN.

***-------------------End of the Change-------------------***