**3GPP TSG-RAN WG3 Meeting #119R3-230886**

**Athens, Greece, 27th Feb – 3rd Mar 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.401** | **CR** | **0274** | **rev** | **1** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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 | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Support of Network-Controlled Repeater | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_netcon\_repeater-Core | | | | |  | ***Date:*** | | | 2023-02-16 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Add the support for Network-Controlled Repeater | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The following changes are added:   * Add a new section for NCR integration procedure | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Not able to support NCR | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.x (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Rev 1: updated during RAN3#119 | | | | | | | | |

<<<<<<<<<<<<<<<<<<<< Start of Changes >>>>>>>>>>>>>>>>>>>>

## 8.x Overall procedures for Network Controlled Repeater

### 8.x.y NCR-node Integration Procedure

A high-level flow chart for NCR integration is shown below:



Figure 8.x.y-1: The integration procedure for NCR-node

Phase 1: NCR-MT setup. In this phase, the NCR-MT of the new NCR-node connects to the network in the same way as a UE, by performing RRC connection setup procedure with gNB-CU, authentication with the core network, and OAM connectivity establishment that can be supported by using the NCR-MT’s PDU session. The NCR-MT selects a cell for access based on NCR support indication in SIB1, and includes the NCR indication in *RRCSetupComplete* message to assist the gNB to select an AMF supporting NCR. Upon receiving the NCR authorization information from 5GC, the gNB-CU provides the authorization information to the gNB-DU.

NOTE 1: The OAM server may configure the NCR-node with a list of allowed gNB cell(s) that the NCR-MT is allowed to connect with, and/or a list of forbidden gNB cell(s) that the NCR-MT is not allowed to connect with.

NOTE 2: The signalling flow for UE initial access procedure as shown in Figure 8.1-1/Figure 8.9.1-1 is used for the setup of the NCR-MT.

Phase 2: The gNB-CU may configure the NCR node via the RRC.

Editor’s NOTE: The information to be configured via RRC pends on RAN2.

Phase 3: After the NCR is configured, the NCR-node can start serving the UEs.

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