**3GPP TSG-SA5 Meeting #141-e *S5-221172***

**e-meeting, 17 -26 January 2022**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.422** | **CR** | 0388 | **rev** | **1** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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 | **X** |

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| ***Title:*** | Add MDT management activation and deactivation mechanism in the case of split architecture for NR | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | e\_5GMDT | | | | |  | ***Date:*** | | | 2021-01-17 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | Add MDT management activation and deactivation mechanism in a split architecture for NR | | | | | | | | |
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| ***Summary of change:*** | | Add management activation and deactivation mechanism for NR. | | | | | | | | |
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| ***Consequences if not approved:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.1.1.9X, 4.1.3.11 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

***First change***

#### 4.1.1.9.x NG-RAN activation mechanisms for management based MDT data collections without IMSI/IMEI(SV)/SUPI selection in the case of split RAN architecture

For management based MDT data collection with no IMSI/IMEI(SV)/SUPI criteria in the case of split RAN architecture, the UE selection can be done in the radio network at gNB-CU-CP, gNB-CU-UP and gNB-DU based on the input information received from management system and the user consent information stored in the gNB-CU-CP, gNB-CU-UP, gNB-DU. The area scope as optional parameter is needed to apply this mechanism.

The following figure summarizes an example of the flow how the MDT configuration for gNB-CU-CP is done utilising the cell traffic trace functionality for this scenario:



Figure 4.1.1.9.2.X: Example for management based MDT activation for gNB-CU-CP in NG-RAN in the case of split architecture

In the case of split RAN architecture, the management system may send the MDT activation to gNB-CU-CP, gNB-DU, and gNB-CU-UP directly. If a gNB-CU-CP receives a management based MDT activation, it may propagate the MDT configuration to gNB-DUs and/or gNB-CU-UPs over F1 and E1 in case that the activation involves measurements collected by multiple nodes under the same gNB-CU-CP control in split RAN architecture.

The overall description for management-based MDT activation in a split architecture is defined in 3GPP TS 38.401 [44].

***Next change***

#### 4.1.3.11 NG-RAN deactivation mechanisms for MDT

When the gNB receives the indication from management system for MDT trace session deactivation, it shall deactivate the trace session for those NG-RAN cells that have been indicated in the message. In case of immediate MDT trace session, the gNB shall deactivate the corresponding MDT RRC measurements in the UEs that have been configured for immediate MDT as part of the given trace session.

In the case of split RAN architecture, If MDT trace session in gNB-CU-UP, gNB-DU has been activated by gNB-CU-CP, the responsible gNB-CU-CP shall deactivate the corresponding MDT trace sessions in gNB-CU-UP, gNB-DU.

***End of changes***