**3GPP TSG-SA5 Meeting #**1**41-e *S5-221170***

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

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.422** | **CR** | 0387 | **rev** | **2** | **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 signalling activation and deactivation mechanisms in a 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 signalling activation and deactivation mechanisms in a split architecture for NR | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | -Add MDT signalling activation and deactivation mechanisms in a split architecture for NR | | | | | | | | |
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| ***Consequences if not approved:*** | |  | | | | | | | | |
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| ***Clauses affected:*** | | 4.1.2.17.X, 4.1.4.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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***

##### 4.1.2.17.X Handling of signalling based MDT activation in a split architecture



Figure 4.1.2.17.x.1: Example of MDT activation in 5GC and NG-RAN after UE attachment in a split architecture

When AMF sends a Trace Start message to gNB-CU-CP, the gNB-CU-CP decides if gNB-CU-UP or gNB-DU, or both should be involved in the MDT measurement. It means that the gNB-CU-CP shall send the TRACE START message to gNB-CU-UP and/or gNB-DU if these nodes should be involved in the MDT measurement.

In case of the split architecture, the configuration parameters that shall be included in the message are same as in the case of non-split architecture, see clause 4.1.2.17.3.

The overall description for signalling based MDT activation procedure in the case of split architecture can be found in 3GPP TS 38.401 [44].

***Next change***

#### 4.1.4.12 NG-RAN deactivation mechanisms

There are two different events that deactivate a Trace Session:

1. When NG-RAN node receives the DEACTIVATE TRACE message using NG interface, it shall deactivate the Trace Session for the indicated Trace Reference.

2. When the NG-RAN node releases the UE context the Trace Recording Session shall be stopped and the Trace Session is deactivated at the NG-RAN node.

If the NG-RAN node is not able to deactivate the trace session due to ongoing handover of the UE to another NG-RAN node, the NG-RAN node shall inform the AMF with the TRACE FAILURE INDICATION message using NG interface.

In case of an immediate MDT trace session and the UE being in connected mode in a split architecture, the AMF shall send DEACTIVATE TRACE message using NG interface toward the gNB-CU-CP. The gNB-CU-CP shall send trace session deactivation towards gNB-CU-UP and/or gNodeB-DU if the trace sessions in the gNB-CU-UP and/or gNB-DU have been activated by the gNB-CU-CP. The gNB-CU-CP shall also deactivate the corresponding MDT RRC measurements in the UE and shall discard the given trace session context.

Note: Signaling based deactivation does not apply for logged MDT trace sessions. The logged MDT trace session terminates when logging duration expires.

***End of changes***