**3GPP TSG-SA5 Meeting #129-e *S5-201353rev2***

**Online, , 24th Feb 2020 - 4th Mar 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **32.421** | **CR** | **0093** | **rev** | **-** | **Current version:** | **16.0.0** |  |
|  |
| *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 requirements for NR |
|  |  |
| ***Source to WG:*** | Oy LM Ericsson AB |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | 5GMDT |  | ***Date:*** | 2020-02-14 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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 canbe 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-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
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| ***Reason for change:*** | No MDT requirements for NR exist |
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| ***Summary of change:*** | Add some additional MDT requirements in clause 6, 7 to be aligned with corresponding work in SA2 (Running CR R2-2000925 Endorsed as baseline). |
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| ***Consequences if not approved:*** | NR will not have MDT requirements in this specification |
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| ***Clauses affected:*** | 6.2.1, 7.2 |
|  |  |
|  | **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***

## 6.2 Specification level requirements

### 6.2.1 Logged MDT and Immediate MDT requirements

All requirements are valid for Logged MDT and Immediate MDT functionality if not mentioned otherwise:

REQ-MDT-FUN-01 It shall be possible to collect UE measurements based on one or more IMEI(SV) number.

REQ-MDT-FUN-02 It shall be possible to collect UE measurements based on one or more IMSI number.

REQ-MDT-FUN-03 It shall be possible to collect UE measurement logs preceding and following a particular event (e.g. radio link failure).

REQ-MDT-FUN-04 Each UE measurement result shall be linked to a time stamp. Accuracy of time information including absolute time and relative time. The absolute time can refer to the *absoluteTimeStamp* IE defined in clause 6.2.2, 3GPP TS 36.331[18] for LTE or the *absoluteTimeInfo* IE in clause 11.3, 3GPP TS 25.331[19] for UMTS. The relative time can refer to the *relativeTimeStamp* IE defined in clause 6.2.2, 3GPP TS 36.331[18] for LTE or the *relativeTimeStamp* IE in clause 11.3, 3GPP TS 25.331[19] for UMTS.

REQ-MDT-FUN-05 The solutions for collecting UE measurements for the purpose of minimization of drive tests shall be able to work independently from SON support in the network.

REQ-MDT-FUN-06 It shall be possible to collect UE measurements in one or more cells or TA/RA/LA.

REQ-MDT-FUN-07 It shall be possible to collect UE measurements based on one or more IMSI in one or more cells or TA/RA/LA.

REQ-MDT-FUN-08 It shall be possible to collect UE measurements based on one or more IMEI(SV) in one or more cells or TA/RA/LA.

REQ-MDT-FUN-09 It shall be possible to configure UE measurement types, and triggering conditions under which UE measurements would be collected for MDT.

REQ-MDT-FUN-10 Void.

REQ-MDT-FUN-11 It shall be possible to configure the condition of MDT data collection based on certain device capability information in one or more cells or in TA/RA/LA.

REQ-MDT-FUN-12 It shall be possible to configure MDT data collection based on one or more IMSI/SUPI in one or more cells or TA/RA/TA with a set of device capability information.

REQ-MDT-FUN-13 It shall be possible to configure MDT data collection based on one or more IMEI(SV) in one or more cells or TA/RA/TA with a set of device capability information.

REQ-MDT-FUN-14 It shall be possible to configure MDT data collection based on one or more IMEI(SV) with a set of device capability information.

REQ-MDT-FUN-15 It shall be possible to configure MDT data collection based on one or more IMSI/SUPI with a set of device capability information.

REQ-MDT-FUN-16 It shall be possible to activate a Trace Session for MDT data collection (or UE measurement collection for MDT purpose) independently from other mobility related performance measurements and call trace collection.

REQ-MDT-FUN-17 It shall be possible to deactivate MDT data collection by using Trace Reference.

REQ-MDT-FUN-18 It shall be possible to create a combine Trace Session for UE measurement collection and for subscriber and equipment/cell trace.

REQ-MDT-FUN-19 Void.

REQ-MDT-FUN-20 MDT activation shall be supported for a UE belonging to any PLMN of the same Operator.

REQ-MDT-FUN-21 MDT data collection shall continue if a user is changing PLMN and the target PLMN is owned by the same operator.

REQ-MDT-FUN-22 It shall be possible to collect positioning data related to UE measurements, which can be either geographical coordinates or raw positioning measurements sufficient to be input for a post processing positioning algorithm.

REQ-MDT-CON-23 It shall be possible for management system to correlate MDT UE measurements with location information.

NOTE: There may be regulatory obligation to delete MDT data after processing.

REQ-MDT-FUN-24 The PLMN where TCE collecting MDT data resides shall match the RPLMN of the UE providing the MDT data.

REQ-MDT-FUN-25 In the case of Area Based MDT the MOP shall be able to select UEs according to the POP intention.

REQ-MDT-FUN-26 The recorded Subscriber and Equipment Trace data related to a particular POP shall contain information so that if can be sent to that POP.

REQ-MDT-FUN-27 In case of non-file-based trace reporting, binary encoding shall be used for the transfer of all MDT data from data producer to the data consumer.REQ-MDT-FUN-U It shall be possible to configure MDT report type to be used for logged MDT for NR.

REQ-MDT-FUN-V Management based MDT configuration and signalling based MDT configuration shall be able to coexist in parallel for NR.

REQ-MDT-FUN-X In case of logged MDT, it shall be possible to collect specific NR neighbour cell measurements.

***Second change***

## 7.2 Specification level requirements

REQ-RLF-FUN-01 It shall be possible to collect RLF and RCEF reports in one or more eNodeBs.

REQ-RLF-FUN-02 It shall be possible to activate a Trace Session for RLF and RCEF data collection independently from other Trace jobs.

REQ-RLF-FUN-03 It shall be possible to collect RLF and RCEF reports in one or more NG-RAN nodes.

REQ-RLF-FUN-04 In case of non-file-based trace reporting, binary encoding shall be used for the transfer of all RLF and RCEF reports data from data producer to the data consumer.

REQ-RLF-FUN-X It shall be possible to collect neighbour cell measurements for RLF and RCEF reports in one or more eNodeBs and NG-RAN nodes.

***End of changes***