**3GPP TSG-RAN WG3 Meeting #119 *R3-230819***

**Athens, Greece, 27 February – 3 March, 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.423** | **CR** | **x** | **rev** | **-** | **Current version:** | **17.3.0** |  |
|  |
| *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:***  | Tabular correction of MDT Activation |
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| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, ZTE |
| ***Source to TSG:*** | R3 |
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| ***Work item code:*** | NR\_SON\_MDT-Core, TEI17 |  | ***Date:*** | 2023-03-02 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Tabular for MDT Activation in the *MDT Configuration-NR* IE and the *MDT Configuration-EUTRA* IE is not aligned on ASN.1. |
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| ***Summary of change:*** | Align tabular on the ASN.1.Impact assessment towards the previous version of the specification (same release):This CR has no impact on the protocol. The CR has no functionality impact.  |
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| ***Consequences if not approved:*** | Unclear specification. |
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| ***Clauses affected:*** | 9.2.3.126, 9.2.3.127 |
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|  | **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 ...  |
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| ***Other comments:*** |  |
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| ***This CR's revision history:*** |  |

#### 9.2.3.126 MDT Configuration-NR

The IE defines the MDT configuration parameters of NR.

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| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MDT Activation | M |  | ENUMERATED(Immediate MDT only, Immediate MDT and Trace, Logged MDT only, ...) |  |
| CHOICE *Area Scope of MDT-NR* | O |  |  |  |
| >*Cell based* |  |  |  |  |
| >>**Cell ID List for MDT-NR** |  | *1 .. <maxnoofCellIDforMDT>* |  |  |
| >>>NR CGI | M |  | 9.2.2.7 |  |
| >*TA based* |  |  |  |  |
| >>**TA List for MDT** |  | *1 .. <maxnoofTAforMDT>* |  |  |
| >>>TAC | M |  | OCTET STRING (SIZE (3)) | The TAI is derived using the current serving PLMN. |
| >*TAI based* |  |  |  |  |
| >>**TAI List for MDT** |  | *1 .. <maxnoofTAforMDT>* |  |  |
| >>>TAI | M |  | 9.2.3.20 |  |
| CHOICE *MDT Mode* | M |  |  |  |
| >*Immediate MDT-NR* |  |  |  |  |
| >>Measurements to Activate | M |  | BITSTRING(SIZE(8)) | Each position in the bitmap indicates a MDT measurement, as defined in TS 37.320 [43]. First Bit = M1,Second Bit= M2,Fourth Bit = M4,Fifth Bit = M5,Sixth Bit = logging of M1 from event triggered measurement reports according to existing RRM configuration,Seventh Bit = M6,Eighth Bit = M7.Value "1" indicates "activate" and value "0" indicates "do not activate".This version of the specification does not use bits 3. |
| >>M1 Configuration | C-ifM1 |  | 9.2.3.128 |  |
| >>M4 Configuration | C-ifM4 |  | 9.2.3.129 |  |
| >>M5 Configuration | C-ifM5 |  | 9.2.3.130 |  |
| >>MDT Location Information | O |  | BITSTRING(SIZE(8)) | Each position in the bitmap represents requested location information as defined in TS 37.320 [43].First Bit = GNSSOther bits are reserved for future use and are ignored if received.Value "1" indicates "activate" and value "0" indicates "do not activate".The eNB shall ignore the first bit unless the *Measurements to Activate* IE has the first bit or the sixth bit set to "1". |
| >>M6 Configuration | C-ifM6 |  | 9.2.3.131 |  |
| >>M7 Configuration | C-ifM7 |  | 9.2.3.132 |  |
| >>Bluetooth Measurement Configuration | O |  | 9.2.3.11 |  |
| >>WLAN Measurement Configuration | O |  | 9.2.3.12 |  |
| >>Sensor Measurement Configuration | O |  | 9.2.3.136 |  |
| >*Logged MDT-NR* |  |  |  |  |
| >>Logging interval | M |  | ENUMERATED (ms320, ms640, ms1280, ms2560, ms5120, ms10240, ms20480, ms30720, ms40960 and ms61440, infinity) | This IE is defined in TS 38.331 [10]. The value "infinity" represents one shot logging, i.e., only one log per event in the logged MDT report. |
| >>Logging duration | M |  | ENUMERATED (10, 20, 40, 60, 90, 120) | This IE is defined in TS 38.331 [10]. Unit: [minute]. |
| >>CHOICE *Report Type* | M |  |  |  |
| >>>*Periodical* |  |  |  |  |
| >>>*Event Triggered* |  |  |  |  |
| >>>>Logged Event Trigger Config | M |  | 9.2.3.137 |  |
| >>Bluetooth Measurement Configuration | O |  | 9.2.3.134 |  |
| >>WLAN Measurement Configuration | O |  | 9.2.3.135 |  |
| >>Sensor Measurement Configuration | O |  | 9.2.3.136 |  |
| >>Area Scope of Neighbour Cells | O |  | 9.2.3.140 |  |
| >>Early Measurement  | O |  | ENUMERATED(true, ...) | This IE indicates whether the UE is allowed to log measurements on early measurement related frequencies in logged MDT as specified in TS 38.331 [10]. |
| Signalling based MDT PLMN List | O |  | MDT PLMN List9.2.3.133 |  |

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| Range bound | Explanation |
| maxnoofCellIDforMDT | Maximum no. of Cell ID subject for MDT scope. Value is 32. |
| maxnoofTAforMDT | Maximum no. of TA subject for MDT scope. Value is 8. |

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| Condition | Explanation |
| ifM1 | This IE shall be present if the *Measurements to Activate* IE has the first bit set to "1". |
| ifM4 | This IE shall be present if the *Measurements to Activate* IE has the fourth bit set to "1". |
| ifM5 | This IE shall be present if the *Measurements to Activate* IE has the fifth bit set to "1". |
| ifM6 | This IE shall be present if the Measurements to Activate IE has the seventh bit set to "1". |
| ifM7 | This IE shall be present if the Measurements to Activate IE has the eighth bit set to "1". |

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#### 9.2.3.127 MDT Configuration-EUTRA

The IE defines the MDT configuration parameters of EUTRA.

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| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| MDT Activation | M |  | ENUMERATED(Immediate MDT only, Immediate MDT and Trace, Logged MDT only, ...) |  |
| CHOICE *Area Scope of MDT-E-UTRA* | O |  |  |  |
| >*Cell based* |  |  |  |  |
| >>**Cell ID List for MDT** |  | *1 .. <maxnoofCellIDforMDT>* |  |  |
| >>>NR CGI | M |  | 9.2.2.7 |  |
| >*TA based* |  |  |  |  |
| >>**TA List for MDT** |  | *1 .. <maxnoofTAforMDT>* |  |  |
| >>>TAC | M |  | OCTET STRING (SIZE (3)) | The TAI is derived using the current serving PLMN. |
| >*TAI based* |  |  |  |  |
| >>**TAI List for MDT** |  | *1 .. <maxnoofTAforMDT>* |  |  |
| >>>TAI | M |  | 9.2.3.20 |  |
| MDT Mode E-UTRA | M |  | OCTET STRING | *MDTMode* IE defined in TS 36.413 [31]. |
| Signalling based MDT PLMN List | O |  | MDT PLMN List9.2.3.133 |  |

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| --- | --- |
| Range bound | Explanation |
| maxnoofCellIDforMDT | Maximum no. of Cell ID subject for MDT scope. Value is 32. |
| maxnoofTAforMDT | Maximum no. of TA subject for MDT scope. Value is 8. |

MDT-Activation ::= ENUMERATED {

 immediate-MDT-only,

 immediate-MDT-and-Trace,

 logged-MDT-only,

 ...

}

MDT-Configuration ::= SEQUENCE {

 mDT-Configuration-NR MDT-Configuration-NR OPTIONAL,

 mDT-Configuration-EUTRA MDT-Configuration-EUTRA OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-ExtIEs} } OPTIONAL,

 ...

}

MDT-Configuration-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

MDT-Configuration-NR ::= SEQUENCE {

 mdt-Activation MDT-Activation,

 areaScopeOfMDT-NR AreaScopeOfMDT-NR OPTIONAL,

 mDTMode-NR MDTMode-NR,

 signallingBasedMDTPLMNList MDTPLMNList,

 iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-NR-ExtIEs} } OPTIONAL,

 ...

}

MDT-Configuration-NR-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

MDT-Configuration-EUTRA ::= SEQUENCE {

 mdt-Activation MDT-Activation,

 areaScopeOfMDT-EUTRA AreaScopeOfMDT-EUTRA OPTIONAL,

 mDTMode-EUTRA MDTMode-EUTRA,

 signallingBasedMDTPLMNList MDTPLMNList,

 iE-Extensions ProtocolExtensionContainer { { MDT-Configuration-EUTRA-ExtIEs} } OPTIONAL,

 ...

}

MDT-Configuration-EUTRA-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}