**3GPP TSG-SA5 Meeting #129-e *S5-201118***

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

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **32.422** | **CR** | **0311** | **rev** | **1** | **Current version:** | **16.0.0** |  |
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| *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:***  | Rel-16 CR TS 32.422 Updating the measurements list for Immediate MDT |
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| ***Source to WG:*** | China Telecommunications, Huawei, Oy LM Ericsson AB |
| ***Source to TSG:*** | S5 |
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| ***Work item code:*** | TEI15 |  | ***Date:*** | 2020-02-12 |
|  |  |  |  |  |
| ***Category:*** | **A** |  | ***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:*** | As per the MDT measurements defined in chapter 5.2.1.1 of TS 37.320, measurements M1-M9 shall be supported for Immediate MDT in LTE. But in TS 32.422, the list of measurements for Immediate MDT is not align with 37.320, M6-M9 are missing. In addition, the format of the parameter is not align with the descriptions in clause 9.2.1.4, TS 36.413.It is therefore proposed to add M6-M9 to TS 32.422 and update the format of the parameter. |
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| ***Summary of change:*** | Update the measurements list by adding M6-M9 and update the format of the parameter in clause 5.10.3. |
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| ***Consequences if not approved:*** | Misaligned and incomplete measurements cause confusion about the corresponding implementation. |
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| ***Clauses affected:*** | 5.10.3 |
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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:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| **Start of changes** |

### 5.10.3 List of measurements

This parameter is mandatory if the Job type is configured for Immediate MDT or combined Immediate MDT and Trace. This parameter defines the measurements that shall be collected. For further details see also 3GPP TS 37.320 [30]. The parameter is 4 octet long bitmap with the following values in UMTS:

- M1: CPICH RSCP and CPICH Ec/No measurement by UE with Periodic or event 1F as reporting triggers.

- M2: For 1.28 Mcps TDD, P-CCPCH RSCP and Timeslot ISCP measurement by UE with event 1I as reporting triggers.

- M3: SIR and SIR error (FDD) by NodeB

- M4: UE power headroom (UPH) by the UE, applicable for E-DCH transport channels.

- M5: Received total wideband power (RTWP) by Node B

- M6: Data Volume measurement, separately for DL and UL, by RNC.

- M7: Throughput measurement, separately for DL and UL, per RAB and per UE, by RNC.

- Any combination of the above

The parameter can have the following values in LTE:

- M1: RSRP and RSRQ measurement by UE with Periodic, event A2 as reporting triggers

- M2: Power Headroom (PH) measurement by UE
NOTE: Available from MAC layer

- M3: Received Interference Power measurement by eNB

- M4: Data Volume measurement separately for DL and UL by eNB

- M5: Scheduled IP Throughput measurement separately for DL and UL, per RAB per UE and per UE for the DL, per UE for the UL, by eNB

- M6: Packet Delay measurement, separately for DL and UL, per QCI per UE, UL PDCP Delay, by the UE, and Packet Delay in the DL per QCI, by the eNB

- M7: Packet Loss rate measurement, separately for DL and UL per QCI per UE, by the eNB

- M8: RSSI measurement by UE for WLAN and bluetooth

- M9: RTT measurement by UE only for WLAN

- And any combination of above

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| LTE |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| M7 | M6 | logging of M1 from event triggered measurement reports according to existing RRM configuration |  M5 | M4 | M3 | M2 | M1 |
| spare |
| UMTS |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| M7 for DL  | M6 for UL | M6 for DL | M5 | M4 | M3 | M2 | M1 |
| spare | M7 for UL |

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| **end of changes** |