**3GPP TSG-SA5 Meeting #131e *S5-203170***

**e-meeting 25th May-3rd June 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.422** | **CR** | **0327** | **rev** | **-** | **Current version:** | **9.6.0** |  |
|  | | | | | | | | |
| *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:*** | Clean up of the editor notes | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI8 | | | | |  | ***Date:*** | | | 2020-05-09 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***Release:*** | | | Rel-9 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The trace and MDT work for Rel-9 is finalized while some editor’s notes are still left over in related specifications. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Remove the editor’s notes in TS 32.422. | | | | | | | | |
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| ***Consequences if not approved:*** | | The editor’s notes are left over in the specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.1, 4.2.2.4, 4.2.4.1, 4.2.4.4, 5.5 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st of Changes** |

### 4.2.1 General

The Trace Session activation contains the triggering events parameter. The actual start/stop triggering events corresponding to the values of the triggering events parameter are defined in triggering events tables in sub-clause 5.1 in the present document.

If the NE failed to start the Trace Recording Session, a Trace failure notification shall be sent to the TCE, and the Trace failure notification has the the same parameters as the notification notifyTraceRecordingSessionFailure defined in 3GPP TS 32.442[24], the Trace failure notification file XML schema is defined in Annex A.

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| **2nd of Changes** |

#### 4.2.2.4 Void

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| **3rd of Changes** |

#### 4.2.4.1 UTRAN stopping mechanisms

The Trace Recording Session in the RNC shall be stopped when the last connection, which belongs to the traced subscriber/mobile, is released.

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| **4th of Changes** |

#### 4.2.4.4 Void

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| **5th of Changes** |

## 5.5 List of interfaces (O)

This is an optional parameter, which defines the interfaces to be recorded in the Network Element.

The following list contains the list of interfaces in each Network Element:

1. MSC Server: A, Iu-CS, Mc and MAP (G, B, E, F, D, C) interfaces, CAP.
2. MGW: Mc, Nb-UP, Iu-UP.
3. RNC: Iu-CS, Iu-PS, Iur, Iub and Uu interfaces.
4. SGSN: Gb, Iu-PS, Gn, MAP (Gr, Gd, Gf), CAP (Ge), Gs, S6d, S4, S3 interfaces.
5. GGSN: Gn, Gi and Gmb interfaces.
6. S-CSCF: Mw, Mg, Mr and Mi interfaces.
7. P-CSCF: Gm and Mw interfaces.
8. I-CSCF: Cx, Dx, Mg, Mw.
9. MRFC: Mp, Mr.
10. MGCF: Mg, Mj, Mn.
11. IBCF: Ix, Mx.
12. E-CSCF: Mw, Ml, Mm, Mi/Mg.
13. BGCF: Mi, Mj, Mk.
14. AS: Dh, Sh, ISC, Ut.
15. HSS: MAP (C, D, Gc, Gr), Cx, S6d interfaces, S6a and location and subscription information.
16. BM-SC: Gmb interface.
17. MME: S1-MME, S3, S6a, S10, S11
18. SGW: S4, S5, S8, S11, Gxc
19. PDN GW: S2a, S2b, S2c, S5, S6b, Gx, S8, SGi
20. eNB: S1-MME, X2, Uu

NOTE: For IMS Network Elements other than P-CSCF and S-CSCF the interfaces included in the Trace Job for a particular type of IMS session are configured in the Management System via the Trace IRP (3GPP TS 32.442 [24]).

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| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| MSC Server | | | | | | | |
|  | | | | | | | |
| MGW | | | | | | | |
| SGSN | | | | | | | |
|  | | | | | | | |
| GGSN | | | | | | | |
| RNC | | | | | | | |
| BM-SC | | | | | | | |
| MME | | | | | | | |
| SGW | | | | | | | |
| PDN GW | | | | | | | |
| eNB | | | | | | | |

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| MSC Server | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| CAP | MAP-F | MAP-E | MAP-B | MAP-G | Mc | Iu | A |
| spare | | | | | | MAP-C | MAP-D |

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| SGSN | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Ge | Gs | MAP-Gf | MAP-Gd | MAP-Gr | Gn | Iu | Gb |
| spare | | | | | S3 | S4 | S6d |

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| MGW | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Spare | | | | | Iu-UP | Nb-UP | Mc |

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| GGSN | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| spare | | | | | Gmb | Gi | Gn |

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| RNC | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Spare | | | | Uu | Iub | Iur | Iu |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| BM-SC | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| spare | | | | | | | Gmb |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| MME | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Spare | | | S11 | S10 | S6a | S3 | S1-MME |

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| SGW | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Spare | | | Gxc | S11 | S8b | S5 | S4 |

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| PDN GW | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| SGi | S8b | Gx | S6b | S5 | S2c | S2b | S2a |

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| eNB | | | | | | | |
| Bit 8 | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 |
| Spare | | | | | Uu | X2 | S1-MME |

If a bit is set to 1, the interface should be traced in the given Network Element.

If a bit is set to 0, that interface should not be traced in the given Network Element.

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| **End of Change** |