**3GPP TSG-CT WG1 Meeting #130-eC1-213558**

**Electronic meeting, 20-28 May 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.182** | **CR** | **0122** | **rev** | **2** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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| ***Title:*** | CAT Corrections on the support of DTMF | | | | | | | | | |
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| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2021-05-21 |
|  |  | | | |  | |  | | |  |
| ***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 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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | It’s not clear where the AS indicates its DTMF capability. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Main changes include :   1. The AS indicates its chosen of DTMF mechanism in the reliable response to the initial INVITE request. | | | | | | | | |
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| ***Consequences if not approved:*** | | For AS, specification about DTMF is not clear. | | | | | | | | |
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| ***Clauses affected:*** | | 4.5.5.2.5, 4.5.5.3.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

\*\*\*\*\* Next change \*\*\*\*\*

##### 4.5.5.2.5 AS support of DTMF

If the UE has indicated support of both the "telephone-event" media subtype and the SIP INFO mechanism for DTMF transport, the AS shall based on operator policy choose which DTMF transport mechanism to use for CAT control between the UE and the AS.

If the AS wants to use the SIP INFO mechanism for DTMF transport, as defined in 3GPP TS 24.229 [4], the AS shall indicate support of the mechanism in a reliable response sent to the UE by including a Recv-Info header field with a "infoDtmf" value, as defined in IETF RFC 6086 [11].

If the AS wants to use the "telephone-event" media subtype for DTMF transport, the AS shall include the "telephone-event" in the SDP for CAT media, sent to the UE.

NOTE: The usage of the "telephone-event" media subtype for CAT control requires that intermediates allow the telephone-event packages to traverse from the UE to the AS during the early dialog.

For the remainder of this subclause, when the term "receipt of DTMF digit" is used, it means either the detection of a DTMF digit by the MRF, which is then passed to the AS over the Cr interface, or the receipt of an INFO request containing the appropriate INFO package, as negotiated above.

\*\*\*\*\* Next change \*\*\*\*\*

##### 4.5.5.3.6 AS support of DTMF

If the UE has indicated support of both the "telephone-event" media subtype and the SIP INFO mechanism for DTMF transport, the AS shall based on operator policy choose which DTMF transport mechanism to use for CAT control between the UE and the AS.

If the AS wants to use the SIP INFO mechanism for DTMF transport, as defined in 3GPP TS 24.229 [4], the AS shall indicate support of the mechanism in a reliable response sent to the UE by including a Recv-Info header field with a "infoDtmf" value, as defined in IETF RFC 6086 [11].

If the AS wants to use the "telephone-event" media subtype for DTMF transport, the AS shall include the "telephone-event" in the SDP for CAT media, sent to the UE.

NOTE: The usage of the "telephone-event" media subtype for CAT control requires that intermediates allow the telephone-event packages to traverse from the UE to the AS during the early dialog.

For the remainder of this subclause, when the term "receipt of DTMF digit" is used, it means either the detection of a DTMF digit by the MRF, which is then passed to the AS over the Cr interface, or the receipt of an INFO request containing a DTMF Info Package, as negotiated above.