**3GPP TSG-CT WG1 Meeting #134-eC1-221129-r1draft**

**E-Meeting, 17th – 25th February 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **24.183** | **CR** | **0078** | **rev** | **-** | **Current version:** | **17.0.0** |  |
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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 |  | Core Network | **X** |

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| ***Title:***  | Small corrections on CRS  |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-02-10 |
|  |  |  |  |  |
| ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | 1.Reference number of RFC3959 is error.2.It’s not clear the "UPDATE request" is sent to which entity.3.Regular session is used in this specification but with no explanation. |
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| ***Summary of change:*** | 1. Corrected the error
2. Add the "to the terminating UE" for the UPDATE request
3. Add a NOTE to explain the regular session.
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| ***Consequences if not approved:*** | Specification is not clear or with errors. |
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| ***Clauses affected:*** | 4.3.1.2, 4.3.1.3, 4.5.3.6 |
|  |  |
|  | **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:*** |  |

\* \* \* First Change \* \* \* \*

#### 4.3.1.2 Requirements on the originating network side

The originating network side may support the "early-session" extension as described in RFC 3959 [4]

For the early session model and the gateway model, if the CRS service is provided by the originating network, the CRS AS shall control an MRF as described in 3GPP TS 24.229 [3] that is acting on behalf of a calling subscriber who has activated CRS.

The CRS service implementing the download and play model adds no additional requirements on the originating network side.

\* \* \* Next Change \* \* \* \*

#### 4.3.1.3 Requirements on the terminating network side

The terminating network side may support the "early-session" extension as described in RFC 3959 [4].

NOTE: the CRS service implementing the early-session model needs the early-session extension to be supported by intermediate entities and the terminating UE, else CRS media can not be provided to the called party.

The CRS service implementing the download and play model adds no additional requirements on the terminating network side.

For early session model and the gateway model, if the CRS service is provided by the terminating network, the CRS AS shall control an MRF as described in 3GPP TS 24.229 [3] that is acting on behalf of a called subscriber who has activated CRS.

\* \* \* Next Change \* \* \* \*

##### 4.5.5.3.6 AS Actions for Gateway model

The AS performing the Gateway model shall follow the procedure as specified in RFC 3960 [10] and annex G in 3GPP TS 24.628 [11] with the additional procedures described in this subclause.

Upon receiving an initial INVITE request from the originating UE, the AS shall forward the initial INVITE request to the terminating UE with the following clarifications:

a) insert an Alert-Info header field with an URN "urn:alert:service:crs"; and

b) if no "precondition" option tag was received in the Supported header field of the incoming INVITE request, and if the AS uses precondition mechanism for providing CRS, add a "precondition" option tag to the Supported header field, insert precondition SDP parameters and indicate the status of local resource availability as specified in RFC 3312 [14].

Upon receiving the first reliable SIP 18x response to the initial INVITE request, and this 18x response contains a Contact header field parameter "+g.3gpp.crs" with value set to "rs", the AS:

a) may contact the MRF to request CRS resource; and

b) shall forward the reliable SIP 18x response to the originating UE. If no "precondition" option tag was included in the Supported header field of the INVITE request and if the precondition mechanism is used in the received 18x, before forwarding the 18x response, the AS shall remove the "precondition" option tag from the Require header field and remove precondition SDP parameters from the SDP answer.

Upon receiving the PRACK request of the first reliable 18x response from originating UE, the AS shall forward the PRACK request to the terminating UE and the AS may contact the MRF to request CRS resource, if it has not been previously requested and the g.3gpp.crs media feature tag with value "rs" was included in the Contact header field of the received 18x responses from the terminating UE.

When the video media feature tag is not included in the Contact header field of the previously received 18x response from the terminating UE and there is no video description in the SDP answer included in the 18x response, the AS shall not request video CRS resource from MRF, and shall not apply video CRS media to the terminating UE.

After receiving 180 (Ringing) response or receiving a SIP 200 (OK) response to the PRACK request of the first reliable SIP 18x response from terminating UE, when the g.3gpp.crs media feature tag with value "rs" was included in the Contact header field of the received 18x responses from the terminating UE, the AS may send the SDP offer of the CRS media to the terminating UE in the UPDATE request as specified in RFC 3311 [12] with:

a) P-Early-Media header field with a "sendrecv" value or a "sendonly" value;

b) an SDP offer for the modification of the existing session, which is based on the CRS information received from the MRF and includes an a=content media-level attribute with a "g.3gpp.crs" value. The media types can include additional media types compared to the SDP answer of the previous 18x response from the terminating UE; and

c) precondition mechanism as specified in RFC 3312 [14] if "precondition" option tag is included in the Require header field of a received 18x response.

When the g.3gpp.crs media feature tag with value "rs" was not included in the Contact header field of the previously received 18x responses from the terminating UE, the AS shall not request CRS resource from MRF, and shall not update regular session media to CRS media by UPDATE request towards terminating UE, and shall not apply CRS media to the terminating UE.

If the terminating UE requires the use of precondition mechanism, the AS shall not instruct the MRF to start applicable media for the CRS service before the terminating UE has indicated that preconditions are fulfilled. The point when the AS instruct the MRF to start applicable media for the CRS service is based on local policy.

Upon receiving a SIP 200 (OK) response to the INVITE request from the terminating UE, the AS shall instruct the MRF to stop media for the CRS service and update media for conversation. If the AS is going to update media with both originating side and terminating side, the AS shall:

a) send an offerless re-INVITE request to the terminating side;

b) upon receiving a SIP response to the re-INVITE request containing an SDP offer of the terminating side for the modification of the regular session, generate an UPDATE request as specified in RFC 3311 [12] to send an SDP offer for the modification of the regular session to the originating UE. The SDP offer shall only contain the media components which appeared both in the SDP offer contained in the SIP response to the re-INVITE request and the previously stored SDP offer in the initial INVITE request. The port number of the corresponding m-line shall be set to zero if it has been set to zero during previous SDP negotiation; and

c) upon receiving a 200 (OK) response to the UPDATE request from the originating side, generate an SDP answer for the regular session to the terminating side, included in the ACK request associated with the re-INVITE request. The SDP answer shall be based on the SDP answer contained in the 200 (OK) response to the UPDATE request, and for the media components which do not appear in the SDP answer in the 200 (OK) response, set the port number of the corresponding m-line to zero.

Upon receiving a SIP 4xx, 5xx or 6xx response to the initial INVITE request from the terminating UE, the AS shall:

a) instruct the MRF to stop the media for the CRS service; and

b) forward the final response to the originating UE.

\* \* \* End of Changes \* \* \* \*