**3GPP TSG-SA WG6 Meeting #40-e S6-202058**

**e-meeting, 16th – 24th November 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **23.280** | **CR** | **0280** | **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 | **x** | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  | A temporary broadcast group from a combination of Groups and Users |
|  |  |
| ***Source to WG:*** | **TD Tech** |
| ***Source to TSG:*** | S6 |
|  |  |
| ***Work item code:*** | **enh3MCPTT** |  | ***Date:*** | 2020-11-03 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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-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:*** | There are requirements in TS 22.280 “[R-6.6.3-001b] The MCX Service shall enable an authorized MCX User to create a temporary Broadcast Group from a combination of a multiplicity of MCX Service Groups and a multiplicity of MCX Users within that MCX Service.”. However, there is no definition of group and user combination in the group and user reggroup process currently. |
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| ***Summary of change:*** | Add the IE of” MC service user ID list” to the related messages of “ Group regroup” |
|  |  |
| ***Consequences if not approved:*** | The temporary broadcast group related features is incomplete. |
|  |  |
| ***Clauses affected:*** | 10.2.2.3 ,10.2.2.8,10.2.2.14,10.2.4.1 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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

#### 10.2.2.3 Group regroup request (group management client – group management server)

Table 10.2.2.3-1 describes the information flow for the group regroup request from the group management client to the group management server.

Table 10.2.2.3-1: Group regroup request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID list | M | List of MC service group IDs to be combined |
| MC service user ID list(see NOTE 3) | O | List of identities of the MC service users to be combined into a group |
| Security level (see NOTE 1) | O | Required security level for the temporary group |
| Priority level | O | Required priority level for the temporary group |
| MC service list (see NOTE 2) | O | A subset of the common MC service(s) to be applied for the regrouped group |
| Broadcast regroup | O | Indicates that only an authorized MC service user can transmit on this temporary group. |
| NOTE 1: Security level refers to the configuration of media and floor control protection parameters as listed in Annex A.4, table A.4-1NOTE 2: If this information element is not present, all the MC service(s) that are common to the groups being regrouped will be applicable for the regrouped group.NOTE 3: If this information element present,groups and users will be combined into a new temporary group. |

\* \* \* End of the Change \* \* \* \*

\* \* \* Second Change \* \* \* \*

#### 10.2.2.8 Group regroup notify

Table 10.2.2.8-1 describes the information flow group regroup notify from the group management server to the MC service server.

Table 10.2.2.8-1: Group regroup notify

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID list | M | List of constituent MC service group IDs |
| MC service user ID list(see NOTE1) | O | List of identities of the MC service users to be combined into a group |
| MC service group ID | M | MC service group ID of the temporary group |
| MC service list | O | List of MC services whose service communications are to be enabled on this temporary group. |
| Broadcast regroup | O | Indicates that only an authorized MC service user can transmit on this temporary group. |
| NOTE 1: If this information element present,groups and users will be combind into a new temporary group. |

\* \* \* End of the Change \* \* \* \*

\* \* \* Third Change \* \* \* \*

#### 10.2.2.14 Group regroup notification

Table 10.2.2.14-1 describes the information flow group regroup notification between group management servers and from the group management server to the group management client.

Table 10.2.2.14-1: Group regroup notification

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID list | M | List of constituent MC service group IDs |
| MC service user ID list(see NOTE1) | O | List of identities of the MC service users to be combined into a group  |
| MC service group ID | M | MC service group ID of the temporary group |
| Priority level | O | Required priority level for the temporary group |
| Security level (see NOTE2) | O | Required security level for the temporary group |
| Broadcast regroup | O | Indicates that only an authorized MC service user can transmit on this temporary group. |
| NOTE1: If this information element present,groups and users will be combind into a new temporary group.NOTE2: Security level refers to the configuration of media and floor control protection parameters as listed in Annex A.4, table A.4-1 |

\* \* \* End of the Change \* \* \* \*

\* \* \* Fourth Change \* \* \* \*

#### 10.2.4.1 Temporary group formation - group regrouping within an MC system

Figure 10.2.4.1-1 below illustrates the group regroup operations to create a temporary group within an MC system. For simplicity, only the case of two MC service groups being combined is represented, but the procedure is the same if more than two groups or groups and users are combined.

The temporary group formation is applicable only for groups configured with at least one common MC service. The temporary group formation shall be rejected if any of the requested MC services are not common to all MC service groups in the list.

The temporary group created can be a broadcast group or a non-broadcast group. The broadcast regroup is used for one-way communication where only an authorized MCX user is allowed to transmit and all other regroup members are only allowed to receive the communication (e.g. a call from a dispatcher to all regroup members). The non-broadcast regroup is used for two-way communication where all regroup members can transmit and receive (i.e, the regroup group call behaves like a normal non-broadcast group call). The broadcast regroup satisfies the temporary group-broadcast group requirements defined in 3GPP TS 22.180 [2] and is an alternative to the "Temporary group – broadcast group call" procedure (10.6.2.5.3) defined in 3GPP TS 23.379 [16].

Pre-conditions:

1. The group management client, group management server, MC service server and the MC service group members belong to the same MC system.

2. The group management client has retrieved the group configurations of the groups to be regrouped.



Figure 10.2.4.1-1: Group regroup for the groups within the same MC system

1. The group management client of the MC service user requests group regroup operation to the group management server, which is the group management server of one of the groups to be regrouped. The identities of the groups being combined shall be included in this message. The group management client may indicate the security level required for the temporary group. The group management client may indicate the priority level required for the temporary group. The group management client indicates whether the temporary group is a broadcast regroup.

2. The group management server checks whether group regroup operation is performed by an authorized MC service user, based on group policy. The group management server checks whether group1 or group2 is a temporary group. If group 1 or group2 is a temporary group, then the group regrouping will be rejected, otherwise the group regrouping can proceed.

3. The group management server creates and stores the information of the temporary group, including the temporary MC service group ID, the MC service group ID of the groups or the MC service user ID of the users being combined, the priority level of the temporary group, the security level of the temporary group, and whether the temporary group is a broadcast regroup. If the authorized MC service user does not specify the security level and the priority level, the group management server shall set the lowest security level and the highest priority of the constituent groups. If MC service types of the groups being combined are not identical, group management server determines the overlapping part and stores the MC service list for the temporary group.

4. The group management server notifies the MC service server regarding the temporary group creation with the information of the constituent groups, i.e. temporary MC service group ID, group1's MC service group ID and group2's MC service group ID, user1’s MC service user ID or other users. If MC service list is included, MC service server stores it and provides MC service types accordingly.

5. The group management server notifies the affiliated MC service group members of the constituent MC service groups by sending group regroup notification messages.

6. The affiliated MC service group members of the constituent MC service groups send individual group regroup notification response messages.

7. The group management server provides a group regroup response to the group management client of the authorized MC service user. If MC service list is included, group management client stores it and initiates MC service types accordingly.

8. The affiliated MC service group members of the constituent MC service groups individually request group configuration data from the group management server for the temporary group, as described in clause 10.1.5.2. The group configuration data includes security, priority, and other parameters.

\* \* \* End of the Change \* \* \* \*