**3GPP TSG-SA WG6 Meeting #36-e S6-200398**

**E-meeting, 24th – 28th Feb 2020 (revision of S6-xxxxxx)**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.280** | **CR** | **0241** | **rev** | **1** | **Current version:** | **16.5.0** |  |
|  | | | | | | | | |
| *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 | **X** |

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| ***Title:*** | Dynamic data associated with a group at GMS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Hisilicon | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | enh2MCPTT | | | | |  | ***Date:*** | | | 2020-02-17 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 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:*** | | In R16, the pre-configured group regroup procedure is agreed. It is possible that one group may be regrouped twice at MCPTT server and GMS as the coordination mechanism between the MCPTT server and the GMS is missing.  In addition, 3 new requirements were introduced in TS 22.280 v16.5.0 as follows, which introduces more restrictions for group regroup operation:  “*[R-6.6.2.2-011] The MCX Service shall prevent an authorized MCX User from including a temporary group in a Group Regroup operation.*  *[R-6.6.2.2-012] The MCX Service shall prevent an authorized MCX User from including a MCX Group that is already part of an existing Group Regroup in a different Group Regroup operation.*  *[R-6.6.2.2-013] The MCX Service shall be configurable either to prevent or to allow all authorized MCX Users from including a MCX Group that is in emergency state in a Group Regroup operation.*”  In order to avoid one group being regrouped at the MCPTT server from being regrouped again at the GMS and to further support the new requirements [R-6.6.2.2-012] and [R-6.6.2.2-013], the regroup status and the emergency status is also required to be notified to GMS by the MCPTT server.  Further, the MCPTT server has to subscribe the regroup status from GMS to prevent a group already regrouped at GMS from being regroup again at MCPTT server. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1) update clause 10.1.5.5.2 to specify at the GMS the regroup status, and group emergency status related information.  2) update clause 10.1.5.6 to enable GMS to subscribe regroup status and group emergency status from MCPTT server.  3) introduce a new procedure to enable MCPTT server to subscribe the regroup status at GMS. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | A MCX Group that is already part of an existing Group Regroup will be regrouped again in a different Group Regroup operation, thus violating the requirement in *[R-6.6.2.2-012]* of TS 22.280. And the requirement that prevent or to allow all authorized MCX Users from including a MCX Group that is in emergency state in a Group Regroup operation will not be supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 10.1.5.5.2, 10.1.5.6, 10.1.5.6.1, 10.1.5.6.1.1, 10.1.5.6.1.2, 10.1.5.6.1.3, 10.1.5.6.1.4, 10.1.5.6.4 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1st change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

##### 10.1.5.5.2 Dynamic data associated with a group in group management server

The affiliation status in the form of a list of MC service IDs of affiliated group members corresponding to the MC service for that group is available in group management server. The group management server can subscribe to this information from the MC service server in Table 10.1.5.5.1-1. Table 10.1.5.5.2‑1 describes the affiliation status contained in the group management server.

Table 10.1.5.5.2-1: Affiliation status in group management server

|  |
| --- |
| Parameter description |
| MC service group ID |
| List of affiliated group members |
| > MCPTT |
| >> MCPTT ID |
| > MCVideo |
| >> MCVideo ID |
| > MCData |
| >> MCData ID |

Editor's note: The support for affiliation status in the group management server of an MC service user logged into multiple UEs is FFS.

The regroup status of a group in the form of a list of MC service group IDs of the group being regrouped is available in group management server. The group management server can provide this information as per the procedures specified in clause 10.2.4 and also subscribe from the MC service server in Table 10.1.5.5.1-1 to update this information. Table 10.1.5.5.2‑2 describes the regroup status contained in the group management server.

Table 10.1.5.5.2-2: Regroup status in group management server

|  |
| --- |
| Parameter description |
| List of MC service groups being regrouped into a new group |
| > MC service group ID (Constituent MC service group) |
| > Corresponding regrouped group information |
| >> MC service group ID |

The emergency status of a group in the form of a list of MC service group IDs of the group in emergency state is available in group management server. The group management server can subscribe to this information from the MC service server in Table 10.1.5.5.1-1. Table 10.1.5.5.2‑3 describes the emergency status contained in the group management server.

Table 10.1.5.5.2-3: Emergency status in group management server

|  |
| --- |
| Parameter description |
| List of MC service groups in emergency state |
| > MC service group ID |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of 1st Changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 2nd Changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 10.1.5.6 Subscription and notification for dynamic data associated with a group

An authorized user can request the current dynamic data for an MC service group on request. The dynamic data is described in subclause 10.1.5.5.1.

The group management server can subscribe for affiliation status, regroup status and emergency status associated with a group at the MC service server. The affiliation status, regroup status and emergency status in the group management server is described in subclause 10.1.5.5.2.

The MC service server can subscribe for regroup status associated with a group at the group management server. The regroup status in the group management server is described in subclause 10.1.5.5.2.

##### 10.1.5.6.1 Information flows for subscription and notification for dynamic data associated with a group

###### 10.1.5.6.1.1 Subscribe group dynamic data request

Table 10.1.5.6.1.1-1 describes the information flow subscribe group dynamic data request from the MC service client to the MC service server, from the group management server to the MC service server and from the MC service server to the group management server.

Table 10.1.5.6.1-1: Subscribe group dynamic data request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID | M | The MC service group ID for which dynamic data is requested. |
| Group dynamic data type (See NOTE) | O | The type of group dynamic data requested, e.g., affiliated status, regroup status, emergency status |
| NOTE: if the Group dynamic data type IE is not present, all types of group dynamic data is requested. | | |

###### 10.1.5.6.1.2 Subscribe group dynamic data response

Table 10.1.5.6.1.2-1 describes the information flow subscribe group dynamic data response from the MC service server to the MC service client, from the MC service server to the group management server and from the group management server to the MC service server. This information flow from the MC service server to the MC service client is sent individually addressed on unicast or multicast.

Table 10.1.5.6.1.2-1: Subscribe group dynamic data response

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID | M | The MC service group ID for which dynamic data is requested. |
| Status | M | Success or failure of the request |

###### 10.1.5.6.1.3 Notify group dynamic data request

Table 10.1.5.6.1.3-1 describes the information flow notify group dynamic data response from the MC service server to the MC service client, from the MC service server to the group management server and from the group management server to the MC service server. This information flow from the MC service server to the MC service client may be sent individually addressed or group addressed on unicast or multicast (see subclause 10.7.3.4.1).

Table 10.1.5.6.1.3-1: Notify group dynamic data request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID | M | The MC service group ID for which dynamic data is requested. |
| Group dynamic data | M | Dynamic data associated with the group as per the requested group dynamic data type(s) |

###### 10.1.5.6.1.4 Notify group dynamic data response

Table 10.1.5.6.1.4-1 describes the information flow notify group dynamic data response from the MC service client to the MC service server, from the group management server to the MC service server and from the MC service server to group management server.

Table 10.1.5.6.1.4-1: Notify group dynamic data response

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MC service group ID | M | The MC service group ID for which dynamic data was received |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of 2nd Changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 3rd Changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

##### 10.1.5.6.4 Procedure for subscription and notification for regroup status associated with a group by the MC service server

The procedure for subscription for regroup status associated with an MC service group by the MC service server is described in figure 10.1.5.6.4-1 and is used by the MC service server to prevent an authorized MCX User from including a MC service group that is already part of an existing group regroup at GMS in a different group regroup operation at MC service server.

NOTE: This procedure is only applicable when MC service server is the MCPTT server.

Pre-conditions:

- The MC service server is the MC service server within the MC system where the group is defined.



Figure 10.1.5.6.4-1: Subscription for group regroup status

1. The MC service server subscribes to the group regroup status stored in the group management server using the subscribe group dynamic data request.

2. The group management server provides a subscribe group dynamic data response to the MC service server indicating success or failure of the request.

The procedure for notification of group regroup status as shown in figure 10.1.5.6.4-2 is used by the group management server to inform the MC service server about the updates to the group regroup status.

Pre-conditions:

- The MC service server has subscribed to the group regroup status in the group management server.

- The regroup status associated with a group subscribed to by the MC service server has been updated at the group management server.



Figure 10.1.5.6.4-2: Notification of group regroup status

1. The group management server provides the group regroup status via a notification to the MC service server as per the subscription.

2. The MC service server provides a notify group dynamic data response to the group management server.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* End of 3rd Changes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*