**3GPP TSG-SA WG6 Meeting #48-e S6-220749**

**e-meeting, 5th – 14th April 2022 (revision of S6-22xxxx)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.434** | **CR** | **0099** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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 |  |

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|  | | | | | | | | | | |
| ***Title:*** | Minor essential corrections to TS 23.434 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eSEAL | | | | |  | ***Date:*** | | | 2022-04-08 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | This CR fixes some minor issues identified in the specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. In Section 9.3.11.2 step 5a and 5b usage of UAE server is replaced with LMS server. 2. In Section 10.3.11 Step 3 group list subscribe is used which is corrected to Group list fetch request 3. Figure 10.3.12-1: Location-based group update Step 1 is updated to reference proper sub clause. 4. 10.3.2.3 Group creation notification : This IF is also applicable between GMS and GMC and the same has been added. 5. 14.3.2.1 Network resource adaptation request : In this IF either VAL group Id or list of VAL UE IDs shall be present. So made these IEs as Optional. Existing NOTE clarifies that either one of this IEs shall be present. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Notification service needs to be implemented at every VAL layer which requires notification functionality which is redundant and waste of effort. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.3.11.2, 10.3.11, 10.3.12, 10.3.2.3, 14.3.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

#### 9.3.11.2 Monitoring Location Deviation procedure

Figure 9.3.11.2-1 describes the procedure for monitoring the VAL UE's location in a given area of interest.

Pre-condition:

- The LMS server authorized to consume the 3GPP core network service (Monitoring events as specified in 3GPP TS 23.502 [11]).



Figure 9.3.11.2-1: Monitoring VAL UE's location at a given location

1. The VAL server sends Monitor Location Subscription Request to LMS server including VAL UE Identifier, predetermined area of interest information, notification interval and notification URI where the VAL server intends to receive the notifications from LMS server regarding VAL UE's presence in a given area.

- "Area of interest" is the location information, which the VAL server wishes to monitor the VAL UE's location adherence. This parameter can include an area of interest information and other relevant parameters.

- "Notify\_Interval" represents the periodic interval in which the LMS server needs to notify VAL UE's location information to the VAL server. When the VAL UE moves away from the " Area of interest", then the LMS server ignores the "Notify\_Interval" and sends the location notification to the VAL server immediately.

2. LMS processes the Area of interest information in the request, and then subscribes to UE location monitoring as specified in 3GPP TS 23.502 [11] with appropriate parameters mapping. Based on the subscription, the LMS receives the VAL UE location information periodically from the 3GPP core network.

Editor's note: How the LMS's processing of Area of Interest information and the subscription of UE location monitoring based on Area of Interestare related with procedures in 3GPP TS 23.502 and 3GPP TS 23.256 are FFS.

3. LMS shall use the Location information procedures as specified in clause 9.3.7 and clause 9.3.10, to periodically obtain the VAL UE location information. Based on the geographic information from the VAL server, the LMS server may determine to additionally include the positioning methods in SEAL LMS procedures to obtain location information.

4. LMS server, after successful subscription according to steps 2 and 3, sends Monitor Location Subscription response, indicating that the LMS server accepts VAL server's request and will monitor the location of the VAL UE to verify if the VAL UE is in the area of interest.

5a and 5b. LMS server processes the location information received from SEAL Location Information procedures and the core network, and validates the information. If the location information is matching, then the LMS shall check if the VAL UE's current location is within the area of interest received in step 1. The LMS will continue with step 6, step 7 and step 8 as applicable.

6. If the location information received from Location management client and the core network do not match, then the LMS server shall consider the VAL UE as outside from its specified area of interest and shall notify ("Notify Mismatch Location" message) the VAL server of the same, including VAL UE ID and the location information from LMS and the core network in the notification message.

7. If the VAL UE's current location is from Location management client and the core network matches, and not in the area of interest received from VAL server in Monitor Location Subscription Request message, then the LMS considers the VAL UE as outside from its specified area of interest and shall notify the VAL server that the VAL UE's current location is outside of area of interest and VAL UE ID in "Notify Absence" message.

8. When the VAL UE's current location is in area of interest, then the LMS shall notify ("Notify Presence" message) the VAL server periodically, according to the "Notify\_Interval" value in "Monitor Location Subscription Request" message, indicating the VAL server that the VAL UE is within the area of interest, along with VAL UE's current location information.

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

### 10.3.11 Group List Fetch

Figure 10.3.11-1 illustrates the group list fetch operations to fetch list of groups by the group management client.

Pre-conditions:

1) List of groups to which a VAL UE/ VAL User belongs to is known to the Group management server for each of the VAL UE/ VAL User.

2) VAL user has not received group announcement message as it was offline previously.



Figure 10.3.11-1: Group list fetch

1) The VAL client requests group management client to provide the list of groups in which the VAL UE or VAL User is a member.

2) The group management client initiates the group list fetch request towards the Group management server. The information elements described in clause 10.3.2.36 are included in the group list fetch request.

3) The group management server checks the authorization of group list fetch request and if authorized, sends the group list fetch response containing list of groups in which the VAL user is member. The information elements described in clause 10.3.2.37 are included in the group list fetch response.

4) The group management client notifies the list of groups to the VAL client.

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

### 10.3.12 Location-based group update

Figure 10.3.12-1 below illustrates the location-based group update.

Pre-conditions:

1. The group management client, group management server, VAL server, location management server and the VAL group members belong to the same VAL system.

2. The location based group has been created as specified in clause 10.3.7.

3. The group management server has subscribed to monitor UEs moving in or out of the fixed location area as specified in clause 9.3.12.



Figure 10.3.12-1: Location-based group update

1. The group management server receives location area monitoring notification from location management server as specified in clause 9.3.12.4.

2. The group management server updates the group members and sends notification as specified in clause 10.3.5.1.

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

#### 10.3.2.3 Group creation notification

Table 10.3.2.3-1 describes the information flow group creation notification from the group management server to the VAL server(s) and the group management clients.

NOTE: When group is configured for multiple VAL services, the group creation notification message is sent from the group management server to the VAL servers configured for the group.

Table 10.3.2.3-1: Group creation notification

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| VAL group ID | M | VAL group ID that was created based on the VAL user ID list and the VAL services enabled on them |
| Identity list | M | List of VAL user IDs or VAL UE IDs that are part of the created group |
| VAL service specific information (see NOTE) | O | Placeholder for VAL service specific information |
| NOTE: The details of this information element are specified in VAL service specific specification and are out of scope of the present document. | | |

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

#### 14.3.2.1 Network resource adaptation request

Table 14.3.2.1-1 describes the information flow network resource adaptation request from the VAL server to the NRM server.

Table 14.3.2.1-1: Network resource adaptation request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| Requester Identity | M | The identity of the VAL server performing the request. |
| List of VAL UE IDs | O  (see NOTE) | List consisting of one or more VAL UE IDs for whom the network resource adaptation occurs. |
| VAL group ID | O  (see NOTE) | The VAL group ID for whom the network resource adaptation occurs. |
| Resource adaptation requirement | M | The resource adaptation requirement corresponds to the VAL service QoS requirements as applied for a UE or group of UEs (E.g. bandwidth, resource). |
| NOTE: Either of the information elements should be present. | | |

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