**3GPP TSG-CT WG1 Meeting #132-eC1-216054**

**E-meeting, 11-15 October 2021 (was C1-215661)**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.282** | **CR** | **0258** | **rev** | **1** | **Current version:** | **17.4.0** |  |
|  | | | | | | | | |
| *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:*** | Open notification channel | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | AT&T, Samsung | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | eMCData3 | | | | |  | ***Date:*** | | | 2021-09-29 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | Specifying the procedure for openning a notification channel. The open notification channel request is sent from the Message notification client to the MCData notification server (see subclauses 7.13.3.17.3, 7.13.3.1.34 in TS 23.282). | | | | | | | | |
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| ***Summary of change:*** | | New procedure is defined to open a notification channel. | | | | | | | | |
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| ***Consequences if not approved:*** | | Message store client will not have a standard mechanism to manage and receive notifications from MCData message store via MCData notification server as defined in TS 23.282. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 21.2.M (NEW), 21.2.M.1 (NEW), 21.2.M.2 (NEW)  Note, this CR make reference to other new clauses (e.g. 21.2.X) defined in another CR. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \* \* \* \*

### 21.2.M Open notification channel

#### 21.2.M.1 Message notification client procedures

Based on the channel type created as part of the notification channel creation procedure (see subclause 21.2.X. "Create notification channel"), the Message notification client would determine if and how it needs to open (interact with) the created channel for notification flow (i.e. using PULL or PUSH).

To open the notification channel for a PULL notification delivery method (i.e. created channel is of type LongPolling), the Message notification client, acting as an HTTP client shall follow the procedure described in subclauses 6.3 of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx] with the following clarification(s):

1) shall generate an HTTP POST request as specified in subclause 6.3.5 of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx] with the following clarifications:

a) shall set the Host header field to a hostname identifying the Notification server extracted from the channelURL received from the Notification server during channel creation (see subclause 21.2.X. "Create notification channel");

b) shall include a valid MCData access token in the Authorization header; and

c) shall send the HTTP POST request towards the MCData Notification server using the channelURL received from the MCData Notification server during channel creation procedure (see subclause 21.2.X. "Create notification channel").

Upon receipt of a HTTP response, the Message notification client should follow the procedure as described in subclause 6.3.2 of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx]; and

1) either use the notification content and the reported "restartToken" and "index" as specified in subclause 5.1.5.1 of OMA-TS-REST\_NetAPI\_NMS-V1\_0-20190528-C [66] to have the client’s local message store updated accordingly; or

2) use the notification as a trigger to subsequently search the MCData message store for the list of changes as specified in subclause 21.2.17;

NOTE: The notifications about changes in the MCData message store can be used by the message store client to synchronize its local message store with the MCData message store in two distinguished ways which are listed in bullets "1" and "2" above.

To open the notification channel for a PUSH notification delivery method over WebSocket (i.e. created channel created is of type WebSocket), the Message notification client shall follow the procedure described in Appendix I of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx] and use the channelURL received from the MCData Notification server during the channel creation procedure (see subclauses 21.2.X ) to create a WebSocket connection with the MCData Notification server. The process of creating a WebSokect connection between the Message notification client and the MCData Notification server through which the MCData Notification server can send notifications to the Message notification client is not RESTful.

If the created channel is of type NativeChannel, the Message notification client, is not required to invoke the "Open notification channel" procedure as defined in this subclause. See subclauses 5, 5.3.13, 5.3.14 of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx] for description on receiving notification over a NativeChannel.

#### 21.2.M.2 MCData Notification server procedures

Upon receipt of the HTTP POST request (i.e. PULL notification delivery method) from the client, as per subclause 21.2.M.1, with the Request-URI (i.e. channelURL) identifying a resource in the MCData Notification server, the MCData Notification server acting as an HTTP server:

1) shall validate the MCData access token (with "Bearer" authentication scheme) received in the Authorization header of the request as specified in 3GPP TS 24.482 [24];

2) if validation is successful then

a) shall process the HTTP POST request by following the procedures described in subclause 6.3.5 of OMA-TS-REST\_NetAPI\_NotificationChannel-V1\_0-20200319-C [xx]; and

3) shall generate and send an HTTP response towards the Message notification client indicating the result of the operation. If the response is successful, it shall contain the notifications (i.e. MCData message store change events).

\* \* \* \* \* \* END CHANGES \* \* \* \* \* \* \*